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SECTION I

BASIC FLIGHT MANUAL

DECEMBER 1964

INTRODUCTION

Section I—BASIC FLIGHT MANUAL

Section I, Basic Flight Manual, contains, in layman's language, educational, instructional and training information. This information is assembled and presented in a systematic format, categorized by subject matter, providing the novice pilot, as well as the more experienced pilot, with the information to orient or update himself on the basic fundamentals of aeronautical knowledge required to fly in the National Airspace System. The Basic Flight Manual serves as an official medium for documentation and interpretation of aeronautical knowledge for the general aviation pilot.

In addition to the above type of information, adverse factors affecting the safe operation of an aircraft, either on the ground or in the air, and health and medical facts of interest to the pilot are presented.

The section concludes with a list of supplementary aeronautical publications of general operational interest to pilots, providing the latest publication date, the cost and where they may be obtained.

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GOOD OPERATING PRACTICES

It should be remembered that adherence to air traffic rules does not eliminate the need for good judgment on the part of the pilot. Compliance with the following Good Operating Practices will greatly enhance the safety of every flight.

Alertness

Be alert at all times, especially when the weather is good. Most pilots pay attention to business when they are operating in full IFR weather conditions, but strangely, air collisions almost invariably have occurred under ideal weather conditions. Unlimited visibility appears to encourage a sense of security which is not at all justified.

Judgment in VFR Flight

Use reasonable restraint in exercising the prerogative of VFR flight, especially in terminal areas. The weather minimums and distances from clouds are minimums. Giving yourself a greater margin in specific instances is just good judgment.

Conducting a VFR operation in a Control Zone when the official visibility is 3 or 4 miles is not prohibited, but good judgment would dictate that you keep out of the approach area.

It has always been recognized that precipitation reduces forward visibility. Consequently, although again it may be perfectly legal to cancel your IFR flight plan at any time you can proceed VFR, it is good practice, when precipitation is occuring, to continue IFR operation into a terminal area until you are reasonably close to your destination.

In conducting simulated instrument flights, be sure that the weather is good enough to compensate for the restricted visibility of the safety pilot or your greater concentration on your flight instruments. Give yourself a little greater margin when your flight plan lies in or near a busy airway or close to an airport.

Giving Way

If you think another aircraft is too close to you, give way instead of waiting for the other pilot to respect the right-of-way to which you may be entitled. It is a lot safer to pursue the right-of-way angle after you have completed your flight.

Use the Federal Airways

The establishment of the Federal Airways system costs the Government millions of dollars annually. The operation and maintenance of the system costs additional millions every year. Sure, you can stay off the airways most of the time during certain flights by electing to fly "direct" but why ignore the additional safety available in controlled airways?

Use of Victor Airways

Pilots not operating on an IFR flight plan, and when in level cruising flight, are cautioned to conform with VFR cruising altitudes appropriate to direction of flight. During climb or descent, pilots are encouraged to fly to the right side of the center line of the radial forming the airway in order to avoid IFR and VFR cruising traffic operating along the center line of the airway.

Traffic Patterns

At most airports and military air buses, traffic pattern altitudes for propeller driven aircraft generally extend from 600 feet to as high as 1500 feet above the ground. Also traffic pattern altitudes for military turbojet aircraft sometimes extend up to 2000 feet above the ground. Therefore, pilots of en route aircraft should be constantly on the alert for other aircraft in traffic patterns and avoid these areas whenever possible.

Follow IFR Procedures Even When Operating VFR

You don't have to follow IFR procedures if you are conducting VFR operations, but you cannot maintain instrument proficiency without practicing at every opportunity. Use all the navigational aids available and make accurate position reports.

Report

On a VFR flight, when making initial radio contact with a control tower or a Flight Service Station providing Airport Advisory Service, report position and altitude. This will make it easier for ground facility personnel and other pilots to locate your aircraft.

Record ATC Clearance

When conducting an IFR operation, make a written record of your ATC clearance. The specified conditions which are a part of your air traffic clearance may be

Record ATC Clearance (Con't)

somewhat different from those included in your flight plan. Additionally, Air Traffic Control may find it necessary to ADD conditions, such as a particular departure route. The very fact that Air Traffic Control specifies different or additional conditions means that other aircraft are involved in the traffic situation.

Recognize Equipment Capabilities

Until planned receiving equipment can be installed at remote VOR transmitting sites, pilots should remember that while they may be hearing the station "loud and clear" through the voice facility of the VOR to which they are tuned, the receivers being used by the station they are calling may be some distance away, rather than at the transmitter site. In the case of flights conducted at fairly low altitudes, this may make it difficult for the station to receive signals from the aircraft and should be taken into account when trying to establish two-way communication.

Use Proper Frequency Channels

When asking for weather reports and other flight information, ask that the station transmit such information on the voice channel of a navigation aid. This will assist in alleviating the congestion on standard communications frequencies.

Decrease Frequency Congestion

At busy terminal airports where current procedures do not require that initial radio call by ALL inbound aircraft be made on the appropriate approach control frequency, the pilot, by adopting the following practice, will decrease frequency congestion and thereby increase safety: monitor the tower local frequency for a sufficient length of time prior to reaching normal call-up point to determine wind and runway information. When initial call is made to tower the following information will suffice—identification, position, and the fact that wind and runway information has been received. Adc tionally, if appropriate VFR reporting point for the ru way in use is known, advise tower you will report ov that point.

Communications Guard on VFR Flights

On VFR flights, guard the voice channel of VORs f broadcasts and calls from FAA Flight Service Statio

Avoid Flight Beneath Unmanned Balloons

The majority of unmanned free balloons current being operated have, extending below them, either suspension device to which the payload or instrume package is attached, or a trailing wire antenna, or bo In many instances these balloon subsystems may be visible to the pilot until his aircraft is close to the b loon, thereby creating a potentially dangerous situatic Therefore, good judgment on the part of the pilot d tates that aircraft should remain well clear of all u manned free balloons and flight below them should avoided at all times.

Student Pilots Radio Identification

The FAA desires to help the student pilot in acquiri sufficient practical experience in the environment which he will be required to operate. To receive adc tional assistance while operating in areas of concentrat air traffic, a student pilot need only identify himself a student pilot during his initial call to an FAA rad facility. For instance, "Dayton Tower, this is Fleetwi 1234, Student Pilot, over." This special identificati will alert FAA air traffic control personnel and enat them to provide the student pilot with such extra assi ance or consideration as he may need. This procedu is not mandatory.

Conformance with the above Good Operating Practices is not simple as it sounds. It requires constant attention to innumera details and a deep-seated realization that additional hazards ir dent to flight operations exist whenever vigilance is relaxed.

AIR NAVIGATION RADIO AIDS

GENERAL

Various types of air navigation aids are in use today, each serving a special purpose in our system of air navigation.

These aids have varied owners and operators namely: the Federal Aviation Agency, the military services, private organizations; and individual states and foreign governments.

The Federal Aviation Agency has statutory responsibility for the operation and maintenance of any of these aids which are, in whole or in part, used by the general public for air navigation in federally controlled airspace.

LOW/MEDIUM-FREQUENCY (L/MF) RADIO RANGE

1. These ranges are classified by their type of antenna and power. Two types of low-frequency ranges are in use; Loop range (L) and Adcock range (A). Their normal power output is divided into three power classifications.

   Over 150 watts (R)
   50 to 150 watts (MR)
   Under 50 watts (M)

2. It is a popular misconception that loop ranges should not be used for homing. The dual-frequency or "simultaneous" type loop range transmits a nondirectional signal that can be used quite satisfactorily for this purpose.

3. Low-frequency radio range courses are subject to disturbances that result in multiple courses, signal fades and surges over rough country. Pilots flying over unfamiliar routes are cautioned to be on the alert to detect these vagaries, particularly over mountainous terrain.

4. In the near future, all but approximately 87 of the L/MF radio ranges will be decommissioned. Those remaining will be converted to nondirectional radio beacons.

RADIO BEACON

1. A low or medium-frequency radio beacon transmits nondirectional signals whereby the pilot of an aircraft equipped with a loop antenna can determine his bearing and "home" on the station. These facilities normally operate in the frequency band of 200 to 1,750 kc and transmit a continuous carrier with 1,020-cycle modulation keyed to provide identification except during voice transmission.

2. The operational purpose for which the facility is installed generally determines the power output and the name classification. The facilities are classified as follows:

   Compass Locators: Power output less than 25 watts. (15 miles)

   MH Facility: Power output less than 50 watts. (25 miles)

   H Facility: Power output greater than 50 watts but less than 2,000 watts. (50 miles)

   HH Facility: Power output greater than 2,000 watts. (75 miles)

3. When a LF nondirectional homing beacon is used in conjunction with the Instrument Landing System markers, it is called a Compass Locator.

4. All radio beacons except the compass locators transmit a continuous three-letter identification in code except during voice transmissions. Compass locators transmit a continuous two-letter identification in code. The first and second letters of the three-letter location identifier are assigned to the front course outer marker compass locator (LOM), and the second and third letters are assigned to the front course middle marker compass locator (LMM).

   Example:
   ATLANTA, ATL, LOM-AT, LMM-TL.

5. Voice transmissions are made on radio beacons unless the letter "W" (without voice) is included in the class designator (HW).

VHF OMNIDIRECTIONAL RANGE (VOR)

1. Omniranges operate within the 108–118 mc frequency band and have a power output of approximately 200 watts. The equipment is VHF, thus, it is subject to line-of-sight restriction, and its range varies proportionally to the altitude of the receiving equipment. There is some "spill over," however, and reception at an altitude of 1000 feet is about 40 to 45 miles. This distance increases with altitude.

2. There is voice transmission on the omni-frequency, and all information broadcast over L/MF ranges is also available over the VOR's.

3. The effectiveness of the VOR depends upon proper use and adjustment of both ground and airborne equipment.

   a. **Accuracy:** The accuracy of course alignment of the omnirange is excellent, being generally plus or minus 1°.

VHF OMNIDIRECTIONAL RANGE (VOR) (Con't)

b. Roughness: On some VORs, minor course roughness may be observed, evidenced by course needle or brief flag alarm activity (some receivers are more subject to these irregularities than others). At a few stations, usually in mountainous terrain, the pilot may occasionally observe a brief course needle oscillation, similar to the indication of "approaching station." Pilots flying over unfamiliar routes are cautioned to be on the alert for these vagaries, and in particular ,to use the "to-from" indicator to determine positive station passage.

(1) Certain propeller RPM settings can cause the VOR Course Deviation Indicator to fluctuate as much as ±6°. Slight changes to the RPM setting will normally smooth out this roughness. Helicopter rotor speeds may also cause VOR course disturbances. Pilots are urged to check for this propeller modulation phenomenon prior to reporting a VOR station or aircraft equipment for unsatisfactory operation.

4. The only positive method of identifying an omnirange is by its Morse Code identification or by the recorded automatic voice identification which is always indicated by use of the word "VOR" following the range's name. Reliance on determining the identification of an omnirange should never be placed on listening to voice transmissions by the Flight Service Station (FSS) (or approach control facility) involved. Many FSS remotely operate several omniranges which have different names from each other and in some cases none have the name of the "parent" FSS. (During periods of maintenance the coded identification is removed. See MAINTENANCE OF FAA NAVAIDS)

5. Voice identification has been added to numerous VHF omniranges. The transmission consists of a voice announcement, "AIRVILLE VOR" (VORTAC) alternating with the usual Morse Code identification. If no air/ground communications facility is associated with the omnirange, "AIRVILLE UNATTENDED VOR" (VORTAC) will be heard.

6. Part 91.25 of the Federal Aviation Regulations provides for certain VOR equipment accuracy checks prior to flight under instrument flight rules. To comply with this requirement and to ensure satisfactory operation of the airborne system, the FAA has provided pilots with the following means of checking VOR receiver accuracy: (1) VOR test facility (VOT), (2) certified airborne check points, and (3) certified check points on the airport surface.

7. The VOR test facility (VOT) transmits a test signal for VOR receivers which provides users of VOR a convenient and accurate means to determine the operational status of their receivers. The facility is designed to provide a means of checking the accura of a VOR receiver while the aircraft is on the groun The radiated test signal is used by tuning the receiv to the published frequency of the test facility. Wi the Flight Path Deviation Indicator (FPDI) center the omnibearing selector should read 0° with the t from indication being "from" or the omnibearii selector should read 180° with the to-from indicati reading "to." Should the VOR receiver be of t automatic indicating type, the indication should 180°. Two means of identification are used with t VOR radiated test signal. In some cases a continuo series of dots is used while in others a continuous 10 cycle tone will identify the test signal. Informati concerning an individual test signal can be obtain from the local Flight Service Station.

8. Airborne and ground check points consist of certifi radials that should be received at specific points the airport surface, or over specific landmarks wh airborne in the immediate vicinity of the airpo

9. Should an error in excess of ±4° be indicated throu use of the ground check, or ±6° using the airbor check, IFR flight shall not be attempted withc first correcting the source of the error. CAUTIO no correction other than the "correction card" figu supplied by the manufacturer should be applied making these VOR receiver checks.

10. The list of radiated test signals, airborne che points, and ground check points is published Section II, page 49.

TACTICAL AIR NAVIGATION (TACAN)

1. For reasons peculiar to military or naval operatic (unusual siting conditions, the pitching and rolli of a naval vessel, etc.) the civil VOR–DME system air navigation was considered unsuitable for milit or naval use. A new navigational system, Tac cal Air Navigation (TACAN), was therefore dev oped by the military and naval forces to more read lend itself to military and naval requirements. A result, the FAA has been in the process of integ ing TACAN facilities with the civil VOR-DME p gram. Although the theoretical, or technical pr ciples of operation of TACAN equipment are qu different from those of VOR-DME facilities, the result, as far as the navigating pilot is concerned the same. These integrated facilities are cal VORTAC's.

2. TACAN ground equipment consists of either a fi or mobile transmitting unit. The airborne unit conjunction with the ground unit reduces the tra mitted signal to a visual presentation of both azim and distance information. TACAN is a pulse syst and operates in the UHF band of frequencies. Its requires TACAN airborne equipment and does operate through conventional VOR equipment.

VHF OMNIDIRECTIONAL RANGE/TACTICAL AIR NAVIGATION (VORTAC)

1. VORTAC is a facility consisting of two components, VOR and TACAN, which provides three individual services: VOR azimuth, TACAN azimuth and TACAN distance (DME) at one site. Although consisting of more than one component, incorporating more than one operating frequency, and using more than one antenna system, a VORTAC is considered to be a unified navigational aid. Both components of a VORTAC are envisioned as operating simultaneously and providing the three services at all times. Areas of coverage for each type of service should be essentially the same; however, in some cases, the coverage of the VOR and TACAN components will differ significantly.

. Transmitted signals of VOR and TACAN are each identified by three-letter code transmission and are interlocked so that pilots using VOR azimuth with TACAN distance can be assured that both signals being received are definitely from the same ground station. A supplementary automatic voice identification is being added to the VOR. The frequency channels of the VOR and the TACAN at each VORTAC facility are "paired" in accordance with a national plan to simplify airborne operation.

DISTANCE MEASURING EQUIPMENT (DME)

1. In the operation of DME, paired pulses at a specific spacing are sent out from the aircraft (this is the interrogation) and are received at the ground station. The ground station (transponder) then transmits paired pulses back to the aircraft at a different pulse spacing and on a different frequency. The time required for the round trip of this signal exchange is measured in the airborne DME unit and is translated into distance (Nautical Miles) from the aircraft to the ground station.

   Operating on the line-of-sight principle, DME furnishes distance information with a very high degree of accuracy. Reliable signals may be received at distances up to 199 NM at line-of-sight altitude with an accuracy of better than ¼ mile or 2% of the distance, whichever is greater. Distance information received from DME equipment is SLANT RANGE distance and not actual distance. Therefore, the altitude of the aircraft will have a direct bearing on the distance information shown on the indicator.

   DME operates on frequencies in the UHF spectrum between 962 mc and 1213 mc. Aircraft equipped with TACAN equipment will receive distance information from a VORTAC automatically, while aircraft equipped with VOR must have a separate DME airborne unit.

   VOR/DME and VORTAC navigation facilities established by the FAA provide azimuth and distance information from co-located components under a frequency pairing plan. Frequency pairing allows the use of a single receiver tuning selector capable of simultaneously selecting a paired VOR and TACAN (DME) receiver frequency.

5. The importance of positive VOR identification cannot be overemphasized. See page I–4, paragraph 4.
6. Aircraft receiving equipment which provides for automatic DME selection assures reception of azimuth and distance information from a common source whenever VOR/DME and VORTAC navigation facilities are selected. Pilots are cautioned to disregard any distance displays from automatically selected DME equipment whenever VOR only or ILS facilities are being used for position determination.

VOR OPERATIONAL LIMITATIONS

1. The term VOR is, operationally, a general term covering the VHF omni-directional bearing type of facility without regard to the fact that the power, the frequency-protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.
2. The table below lists the intended interference-free service volume of the various categories of VORs. Use of these facilities outside the service volume is not intended, and such use may therefore result in undependable or inadequate indications.

Class of VOR VORTAC or TACAN	Normally Anticipated Altitude Service	Normally Anticipated Interference-free Dist. Service
H	Up to 45,000 Ft MSL	149.75 SM (130 NM)
	Above 45,000 Ft MSL	115.20 SM (100 NM)
L	Up to 18,000 Ft MSL	46.06 SM (40 NM)
T	Up to 12,000 Ft MSL	28.79 SM (25 NM)

NOTE: H = High L = Low T = Terminal

FREQUENCY PAIRING PLAN

VOR—ILS (even) (odd) Frequency	TACAN Channel	VOR Frequency	TACAN Channel
108.0 mc.	17	112.0 mc.	57
108.1	18	112.1	58
108.2	19	112.2	59
108.3	20	112.3	70
108.4	21	112.4	71
108.5	22	112.5	72
108.6	23	112.6	73
108.7	24	112.7	74
108.8	25	112.8	75
108.9	26	112.9	76
109.0	27	113.0	77
109.1	28	113.1	78
109.2	29	113.2	79
109.3	30	113.3	80
109.4	31	113.4	81
109.5	32	113.5	82
109.6	33	113.6	83
	(Continued)		(Continued)

FREQUENCY PAIRING PLAN (Con't)

VOR—ILS (even)(odd) Frequency	TACAN Channel	VOR Frequency	TACAN Channel
109.7	34	113.7	84
109.8	35	113.8	85
109.9	36	113.9	86
110.0	37	114.0	87
110.1	38	114.1	88
110.2	39	114.2	89
110.3	40	114.3	90
110.4	41	114.4	91
110.5	42	114.5	92
110.6	43	114.6	93
110.7	44	114.7	94
110.8	45	114.8	95
110.9	46	114.9	96
111.0	47	115.0	97
111.1	48	115.1	98
111.2	49	115.2	99
111.3	50	115.3	100
111.4	51	115.4	101
111.5	52	115.5	102
111.6	53	115.6	103
111.7	54	115.7	104
111.8	55	115.8	105
111.9	56	115.9	106
		116.0	107
		116.1	108
		116.2	109
		116.3	110
		116.4	111
		116.5	112
		116.6	113
		116.7	114
		116.8	115
		116.9	116
		117.0	117
		117.1	118
		117.2	119
		117.3	120
		117.4	121
		117.5	122
		117.6	123
		117.7	124
		117.8	125
		117.9	126

NOTE.—TACAN channels assigned to ILS localizer frequencies (108.1–111.9) are for programmed ILS/DME installations.

MARKER BEACON

1. Marker beacons serve to identify a particular location in space along an airway or on the approach to an instrument runway. This is done by means of a 75-mc transmitter which transmits a directional signal to be received by aircraft flying overhead. These markers are generally used in conjunction with L Frequency Radio Ranges and the Instrument Land System as point designators. Four classes of mark are now in general use: FM, LFM, station locat or Z-Markers, and the ILS marker beacons.
2. FM and LFM fan markers are keyed to indicate which radio range course they are located. The ra range courses are numbered clockwise beginning true north. Fan markers located on course num one are keyed to emit single dashes, those on cou two, two dashes, etc. When two fan markers located on the same radio range course, the identif tion of the outer most marker is preceded by t dots; thus the identification of the outermost mar on a number one course is two dots and one dash.
3. The class FM fan markers are used to provide positive identification of positions at definite poi along the airways. The transmitters have a pov output of approximately 100 watts. Two types antenna array are used with class FM fan mark The first type used, and generally referred to as standard type, produces an elliptical-shaped patte which at an elevation of 1000 feet above the stat is about four miles wide and 12 miles long. 10,000 feet the pattern widens to about 12 miles w and 35 miles long. (The long axis lies across the way or radio range.)
4. The second array produces a dumbbell or bonesha pattern, which, at the "handle" is about three m wide at 1000 feet. The boneshaped marker is p ferred at approach control locations where "tim approaches are used.
5. The class LFM or low-powered fan markers hav rated power output of 5 watts and are usually loca within 5 miles of the radio range stations with wh they are associated. The antenna array produce circular pattern which appears elongated at ri angles to the airway due to the directional ch acteristics of the aircraft receiving antenna.
6. The Station Location, or Z-Marker, was developed meet the need for a positive position indicator aircraft operating under instrument flying conditi to show the pilot when he was passing directly c a Low Frequency Radio Range Station. The mar consists of a 5-watt transmitter and a directive tenna array which is located on the range plot tween the towers or the loop antennas.
7. ILS marker beacon information is included ur "ILS."

INSTRUMENT LANDING SYSTEM (ILS)

1. GENERAL

a. The instrument landing system is designed to p vide an approach path for exact alignment descent of an aircraft on final approach to a r way.

b. The ground equipment consists of two highly rectional transmitters and, along the approa three (or fewer) marker beacons. The directio

INSTRUMENT LANDING SYSTEM (ILS) (Con't)

transmitters are known as the localizer and glide path transmitters.

c. The system may be divided functionally into three parts:

Localizer—course information
Glide Path—descent information
Marker beacons—range information

d. Compass Locators and Approach Light Lanes supplement these major components.

2. LOCALIZER

a. The localizer transmitter, located at the far end of the runway, transmits signals which enable the pilot to steer the required course to the runway. The transmitter, operating on one of twelve channels within the range of 108.1 mc to 111.9 mc, emits two patterns, one modulated at 150, and the other at 90 cycles per second. These two signal patterns overlap along a line formed by an elongation of the runway. The aircraft receiving equipment finds this line by finding the area of equal signal strength between the two patterns, just as the course of a radio range is the area of equal strength between two quadrants. The course formed by the localizer signals has an over-all width of 5°. It spreads from a width of approximately 70 feet at the touchdown point to a width of approximately one mile at a distance of 10 miles from the transmitter.

b. For the purpose of reference, the 150-cycle area to the right of the approaching aircraft is called the Blue area, and the 90-cycle area to the left of the approaching aircraft is called the Yellow area. The approach course of the localizer is called the front course.

c. The course along the centerline of the runway in the opposite direction is called the back course. The localizer transmitter has a range of approximately 40 miles at an altitude of 5,000 feet, and 80 miles at 10,000 feet. It can carry voice transmissions.

d. Identification consists of three-letter signals preceded by an I(..) transmitted on the localizer frequency.

3. GLIDE PATH

a. The UHF glide path transmitter is located approximately 750 feet from the approach end of the runway and approximately 400 feet from the center line and transmits a glide path beam 0.8° wide.

b. Unlike the localizer, the glide path transmitter emits its signals in the direction of the final approach and sends practically no signals toward the far end of the runway. The glide path transmitter, operating on one of 20 channels, transmits patterns modulated at 90 cycles and 150 cycles. The location of the glide path is determined by finding the area of equal signal strength between the patterns.

c. The glide path projection angle is normally adjusted to 2.5 degrees to 3 degrees above horizontal so that it intersects the middle marker at about 200 feet and the outer marker at about 1400 feet above the runway elevation.

d. In addition to the desired path, false course, reversal in sensing, will occur at vertical angles considerably greater than the usable path.

Example:

For a glide angle setting of 3 degrees, null reference equipment has a false course 9 degrees above horizontal. Nulls also occur above the path which cause the needle to center and the flag to show, indicating the absence of signal.

e. The proper use of the glide path requires that the pilot maintain alertness as the glide path intersection is approached and interpret correctly the "fly-up" and "fly-down" instrument indications to avoid the possibility of attempting to follow one of the higher angle courses.

f. Provided that procedures are correctly followed and pilots are properly indoctrinated in glide path instrumentation, the fact that these high angle courses exist should cause no difficulty in the glide path navigation since they will not normally be encountered.

g. Extreme caution should be used when flying the glide path where the indicator shows the position of the aircraft to be under the glide path. The suggested limits are not to exceed three dot deviation up to the middle marker and to allow no "fly-up" condition from the middle marker to completion of landing.

h. FAA glide slope facilities are intended to provide reliable glide slope signals for use in conjunction with the front course of the ILS localizer. Glide slope signals may be received in other azimuths (because of stray radiation from the antennas and reflections from nearby objects) which may in some cases be sufficient to activate the airborne warning flag. Any glide slope needle activity in these other azimuths should be disregarded.

i. Pilots are particularly cautioned to ignore glide slope indications when making back course localizer approaches. All FAA approved procedures for back course approaches are limited to use of the localizer portion of the ILS. Any attempt to fly spurious glide slope indications on such back course approaches could result in hazardous operations.

j. Modification of null reference glide slope facilities will result in glide slope flare at about thirty (30) feet above runway. Caution is advised on automatic approaches continued past runway threshold.

4. MARKER BEACON

a. There are ordinarily two marker beacons, the outer and middle, but there are exceptions at some loca-

INSTRUMENT LANDING SYSTEM (ILS) (Con't)

tions. Frequently the Z-marker of a radio range station located along the localizer beam serves as the outer marker in place of the regular fan-type marker.

b. The outer marker is approximately 4 to 7 miles from the approach end of the runway and within 250 feet of an extended center line of the runway. Its signal is keyed at two dashes per second.

c. The middle marker is located 3500 feet plus or minus 250 feet from the runway and within 50 feet of the center line extended. It transmits a series of alternate dots and dashes.

5. COMPASS LOCATOR

a. Compass locator transmitters are often situated at the middle and outer marker sites. The transmitters have a power output of 25 watts, a range of 15 miles, and operate between 200 and 400 kc.

b. Compass locators transmit two-letter identification groups. The outer locator transmits the first two letters of the localizer identification group, and the middle locator transmits the last two letters of the localizer identification group.

6. PARALLEL ILS

a. A parallel ILS approach system permitting simultaneous ILS approaches has been implemented at Chicago O'Hare International Airport. Similar systems are being planned for other airports having parallel runways with minimum spacing of 5000 feet between centerlines.

7. ILS MINIMA

a. ILS minima with all components operative are usually 200–½. Minima of 300–¾ may be authorized with any one component inoperative except the localizer. If 300 feet of obstruction clearance in the approach area cannot be provided with the glide slope inoperative, a note indicating the minima which does provide 300 feet obstruction clearance will be added to the approach chart.

Example:

"400–¾ required with glide slope inop."

b. Straight-in minima of 300–1 are authorized with only the outer marker or compass locator operative if 300 feet of obstruction clearance is provided in the approach area.

c. Circling minima are authorized with only the localizer and the outer marker or compass locator operative.

8. ILS CHANNEL/FREQUENCY

a. ILSs are being commissioned utilizing all 20 channels allotted to ILS by ICAO in Aeronautical Telecommunications Annex 10. Aircraft equipment should be checked to assure the receiving capability of all channels.

Sequence or Channel Number	Localizer Mc/s	Glide Path Mc/s	Sequence or Channel Number	Localizer Mc/s	Glide Path Mc/s
1	110.3	335.0	11	108.1	3
2	109.9	333.8	12	108.3	3
3	109.5	332.6	13	108.5	3
4	110.1	334.4	14	108.7	3
5	109.7	333.2	15	108.9	3
6	109.3	332.0	16	111.1	3
7	109.1	331.4	17	111.3	3
8	110.9	330.8	18	111.5	3
9	110.7	330.2	19	111.7	3
10	110.5	329.6	20	111.9	3

RADIO RANGES REQUIRING FLIGHT CHECK

1. Air navigation facilities must provide maximum sistance to the users with uniform quality of ir mation. A periodic physical check of the facilit conducted by FAA flight check to assure contir accurate operation.

2. When a flight check of a radio range is require NOTAM will be issued advising that the rang ground checked only, awaiting flight check, and following will apply with regard to operation and of the range:

   a. If the radio range is a very high frequency t (108.2 through 117.9 mc) range, the entire r range (consisting of the navigational, voice, identification features) will be shut down.

   b. If the radio range is a low frequency type through 400 kc) nonsimultaneous range, the r gational feature will be shut down, and no uti tion for navigational purposes will be author

   c. If the radio range is a low frequency type through 400 kc) simultaneous range, it may used as a homing facility only.

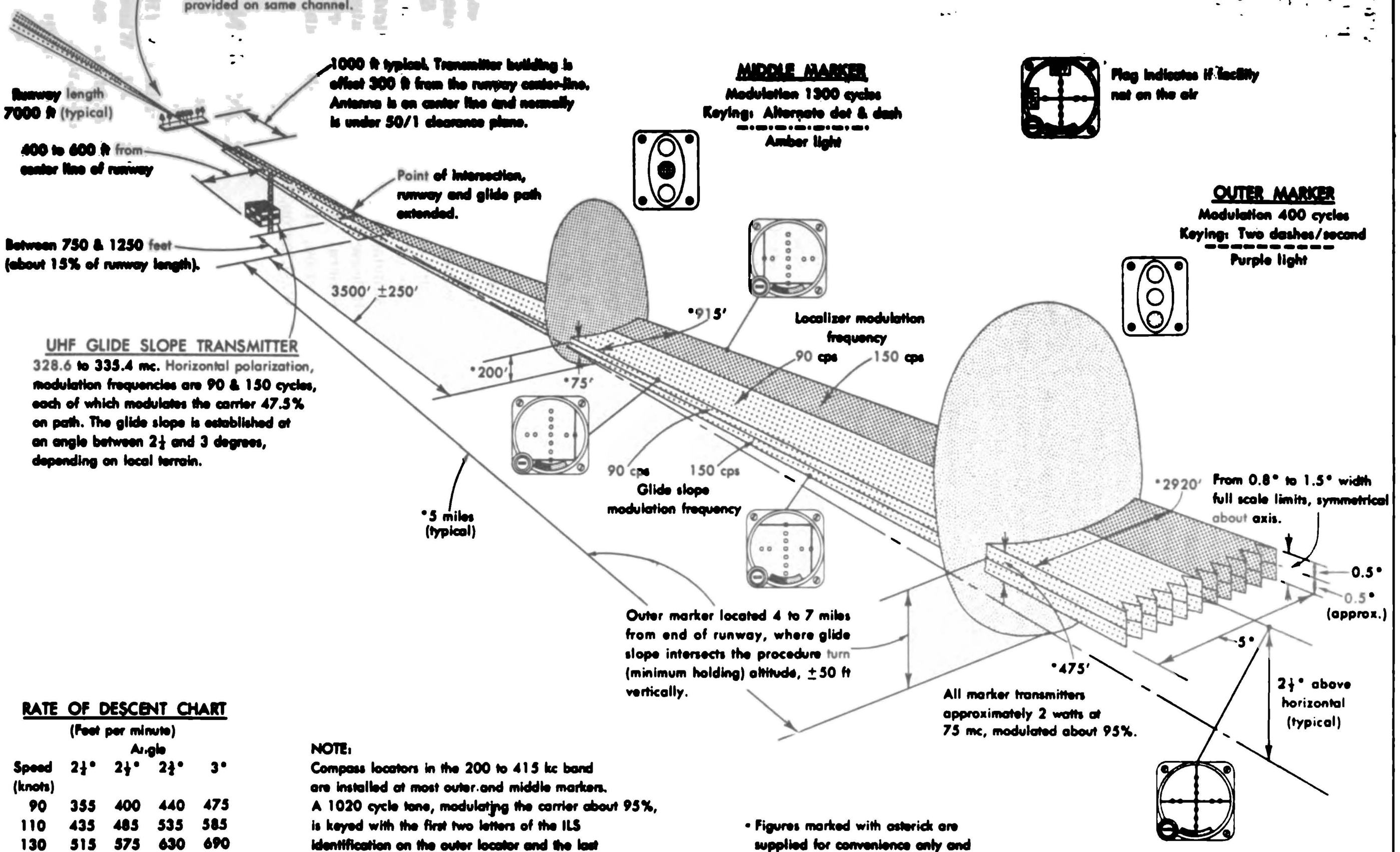
      (1) In addition, this type of radio range ma used as an ADF approach aid by sched air carriers, provided that their operat specifications authorize an ADF instrui approach to the airport concerned.

      (2) Irregular air carriers and other operators use this type of radio range as an ADF in ment approach aid if an ADF procedure the airport concerned is prescribed by Administrator, or if an approach is condu using the same course for an ADF trac that specified in the approved range proce and with identical altitudes as used in range approach.

   d. If the radio range is a VORTAC or TACAN, TACAN portion cannot be "ground check Therefore, the TACAN will be reported "ou service" and will be shutdown until restore normal operation by flight check.

ILS
(FAA Instrument Landing System)
STANDARD CHARACTERISTICS AND TERMINOLOGY

ILS approach charts should be consulted to obtain variations of individual systems.



RATE OF DESCENT CHART
(Feet per minute)

Speed (knots)	Angle 2½°	2¾°	3°	3¼°	3½°
90	355	400	440	475	515
110	435	485	535	585	630
130	515	575	630	690	745
150	595	665	730	795	860
160	637	707	778	849	920

NOTE:
Compass locators in the 200 to 415 kc band are installed at most outer and middle markers. A 1020 cycle tone, modulating the carrier about 95%, is keyed with the first two letters of the ILS identification on the outer locator and the last two letters on the middle locator.

• Figures marked with asterick are supplied for convenience only and are not necessarily standard.

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

MAINTENANCE OF FAA NAVAIDS

1. During periods of routine or emergency maintenance, the coded identification (or code and voice, where applicable) will be removed from certain FAA Navaids, namely, ILS localizers, VHF ranges and L/MF ranges but not from "H" facilities, compass locators or 75 mc marker beacons. The removal of identification serves as warning to pilots that the facility has been officially taken over by "Maintenance" for tune-up or repair and may be unreliable even though on the air intermittently or constantly.

NAVAIDS WITH VOICE

1. Voice equipped en route radio navigational aids are under the operational control of an FAA Flight Service Station (FSS), or an approach control facility. Most are remotely operated.
2. Unless otherwise noted on the chart, all radio navigation aids operate continuously except during interruptions for voice transmissions on the same frequencies where simultaneous transmission is not available, and during shutdowns for maintenance purposes. Hours of operation of those facilities not operating continuously are annotated on the charts.

SIMULTANEOUS VOICE TRANSMISSIONS FROM A SINGLE LOCATION

1. At several FAA facilities, simultaneous voice transmissions are made from a single location. For example, the New York FSS controls the transmitters at Kennedy, Hampton, Riverhead, Deer Park, Hempstead L/MF and VOR facilities.
2. To provide a uniformly brief announcement, generally for broadcast purposes, the name of the controlling facility, followed by the word AREA will be used, e.g., THIS IS NEW YORK AREA RADIO, etc.
3. Call from aircraft will be answered using the name of the station as stated by the pilot, e.g., a pilot calling "Riverhead Radio" will be answered by the New York FSS, "THIS IS RIVERHEAD RADIO, etc."
4. The word "AREA" signifies that the transmission from the named (controlling) location is emanating simultaneously from two or more remotely controlled facilities, having a different name or names.

FREQUENCY UTILIZATION PLAN

AIR NAVIGATION AIDS

108.1–111.9 mc: ILS localizer with simultaneous radio-telephone channel operating on odd-tenth decimal frequencies (108.1, 108.3 etc.).

108.2–111.8 mc: VOR's operating on even-tenth decimal frequencies (108.2, 108.4 etc.).

112.0–117.9 mc: Airway track guidance. (VORs)

COMMUNICATIONS

118.0–121.4 mc: AIR TRAFFIC CONTROL COMMUNICATIONS

121.5 mc: EMERGENCY (WORLD-WIDE)

121.6–121.95 mc: AIRPORT UTILITY

122.1, 122.2 mc: PRIVATE AIRCRAFT ENRO

122.5, 122.7, 122.6, 122.4 mc: PRIVATE AIRCR TO TOWERS

122.8, 123.0 mc: AERONAUTICAL ADVIS STATIONS (UNICOM)

122.9 mc: AERONAUTICAL MULTICOM STATI

123.1–123.55 mc: FLIGHT TEST AND FLY SCHOOLS

123.6–128.8 mc: AIR TRAFFIC CONTROL MUNICATIONS

126.7 mc: FLIGHT SERVICE STATIONS

128.85–132.0 mc: AERONAUTICAL ENROUTE TIONS (AIR CARRIER)

132.05–135.95 mc: AIR TRAFFIC CONTROL MUNICATIONS

135.9 mc: FLIGHT SERVICE STATIONS

RADIO INTERFERENCE

1. You can do your part toward reducing radio i ference to aeronautical services from nonaeronat sources which may be noted during flight if such ported promptly to an FAA facility (preferably landing) or to an FCC field office. Reports sl state the frequency or channel affected, descripti the interference, and the geographical area wher interference was observed. If known, reports sl give the apparent cause of the interference suc radio stations, call letters when such can be ident industrial plants, diathermy machines, power l television receivers, etc. Do not report interfe caused by normal frequency congestion, i.e., si; from other aircraft using the frequency.
2. In complex aircraft radio installations involving than one receiver, there are many combinatio possible interference between units. This interfe can cause either erronous navigation indicatio complete or partial blanking out of the commu tions. Pilots should be familiar enough with the installation of particular airplanes they fly to r nize this type of interference. Explanations of type of interference are contained in Bureau of F Standards Release 436 and Flight Standards S Release 450. Copies can be obtained by writing t Federal Aviation Agency, Correspondence In Section, HQ 440, Publishing and Graphics Div Washington, D.C., 20553.

CONSOLAN

1. Consolan is a long-range navigation aid operati the low/medium frequency band.
2. A receiver equipped with CW (BFO) position out AVC should be used. When a loop anten used, best results are obtained by placing the lo the maximum signal position.
3. Three stations are now operating within the U States—Nantucket (TUK) 194 kc, San Fra (SFI) 192 kc, and Miami (MMF) 190 kc.

CONSOLAN (Con't)

4. A range of 1000–1400 nautical miles or more is to be expected. Greatest range is found over sea-water. The range depends on the receiver, noise, ground conductivity, ionospheric conditions, frequency, and transmitter power. With experience, operators can obtain accurate bearings through considerable noise. Narrow band receivers provide a high operational range. The systems are not usable within 25 miles of the station.

. Operating details and the necessary tables are included in the International Flight Information Manual.

VHF/UHF DIRECTION FINDER

. The VHF/UHF Direction Finder (VHF/UHF/DF) is one of the Common System equipments that helps the pilot without his being aware of its operation. The VHF/UHF/DF is a ground-based radio receiver used by the operator of the ground station where it is located.

2. The equipment consists of a directional antenna system, a VHF and a UHF radio receiver. At a radar-equipped tower or center, the cathode-ray tube indications may be superimposed on the radarscope.

3. The VHF/UHF/DF display indicates the magnetic direction of the station from the aircraft each time the aircraft transmits. Where DF equipment is tied into radar, a strobe of light is flashed from the center of the radarscope in the direction of the transmitting aircraft.

4. DF equipment is of particular value in locating lost aircraft and in helping to identify aircraft on radar.

RADAR

GENERAL

1. FAA radar units operate continuously at the locations shown in the Airport/Facility Directory and their services are available to all pilots, both civil and military. Contact the associated FAA control tower or ARTCC on any frequency guarded for initial instructions, or in an emergency, any FAA facility for information on the nearest radar service.
2. Radar Traffic Information Service Procedures, Expanded Radar Service for Arriving and Departing Flights in Terminal Areas Procedures, and Terminal Radar Service Procedures are published under "ARRIVAL."

SURVEILLANCE RADAR

1. Surveillance radars are divided into two general categories: Airport Surveillance Radar and Air Route Surveillance Radar. Airport Surveillance Radar (ASR) is designed to provide relatively short range coverage in the general vicinity of an airport and to serve as an expeditious means of handling terminal area traffic through observation of precise aircraft locations on a radarscope. The ASR can also be used as an instrument approach aid. Air Route Surveillance Radar (ARSR) is a long-range radar system designed primarily to provide a display of aircraft locations over large areas. It will not normally be used as the basis for instrument approaches, nor to provide traffic separation in terminal areas at low altitudes.
2. Surveillance radars scan through 360° of azimuth and present target information on a radar display located in a tower or center. This information is used independently or in conjunction with other navigational aids in the control of air traffic.

RADAR CONTROLLED APPROACHES (FAA RADAR FACILITIES ONLY)

1. The only airborne radio equipment required for radar controlled approaches is a functioning radio transmitter and receiver. By means of radar, the controller closely follows the flight path of aircraft and issues instructions to align these with the center line of the runway, and keep them on course until the pilot can complete his approach and landing by visual reference to the surface.
2. Radar approaches will be given upon request and may be suggested to pilots of aircraft in distress or to expedite traffic. Acceptance of a precision or surveillance approach by a pilot does not waive the prescribed weather minimums for the airport or for the particular aircraft operator concerned. The de to make a radar controlled approach when t ported weather is below the established mini rests with the pilot.
3. Precision and surveillance approach minimum published on separate pages in the C & GS App and Landing Chart Manuals.
   a. **A PRECISION APPROACH** is one in which controller provides highly accurate naviga guidance in azimuth and elevation to a Pilots are given headings to fly, to direct the and keep their aircraft aligned with, the ext center line of the landing runway. They ar to anticipate glide slope interception approxi ly 15 to 30 seconds before it occurs, when to descent, and they may be given a rate of de based on the glide slope angle and the app speed of the aircraft. If the aircraft is obs to deviate above or below the glide slope, the is given the amount of deviation and ask adjust his rate of descent to return to the slope. Range from touchdown is given at once each mile. If an aircraft is observed t ceed outside of specified safety zone limits i muth and/or elevation and continue to o outside these prescribed limits, the pilot w directed to climb to a specified altitude and a specified course if he is not navigating by reference to the surface. Navigational gui in azimuth and elevation is provided to the until the aircraft passes over the approac of the runway, at which point he is advised deviation from the runway center line and ed to take over visually and complete his la
   b. **A SURVEILLANCE APPROACH** is one in whic controller provides navigational guidanc azimuth only. The pilot is furnished he to fly to align his aircraft with the ext center line of the landing runway, but sin radar information used for a surveillanc proach is considerably less precise than tha for a precision approach, the accuracy of t proach will not be as great and higher w minimums will apply. Guidance in elevat not possible, but the pilot will be given a p which to start a rate of descent based on a able glide angle and the speed of the aircra concerned. In addition, the pilot will be advi his distance from the end of the runway eac on final and concurrently recommended alt (mean sea level) above/to the published

RADAR CONTROLLED APPROACHES (FAA) (Con't)

minimum will be furnished at each mile. No recommended altitudes will be furnished at other than whole mile distances or when such altitudes are below the ceiling minimum published for the approach being made. A pilot may be guided to any runway having an approved surveillance approach. Navigational guidance is provided until the aircraft reaches a point one mile from the approach end of the runway. At the point, he is given his distance from the runway and directed to execute a missed approach if he does not have runway in sight at landing minimums.

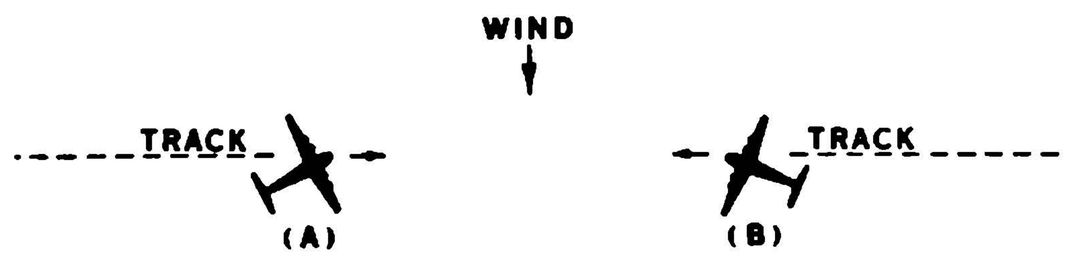
c. **A NO-GYRO APPROACH** is available to a pilot under radar control who experiences circumstances wherein his directional gyro or other stabilized compass is inoperative or inaccurate. When this occurs, he should so advise air traffic control and request a No-Gyro vector or approach. Pilots of aircraft not equipped with a directional gyro or other stabilized compass who desire radar handling may also request a No-Gyro vector or approach. Prior to commencing such vector/approach the pilot will be advised to make all turns at standard rate, and that turn instructions should be executed immediately upon receipt. For example, "TURN RIGHT," "STOP TURN." When a surveillance or precision approach is made, the pilot will be advised after his aircraft has been turned onto final approach to make turns at half standard rate.

AIR TRAFFIC CONTROL RADAR BEACON SYSTEM (ATCRBS)

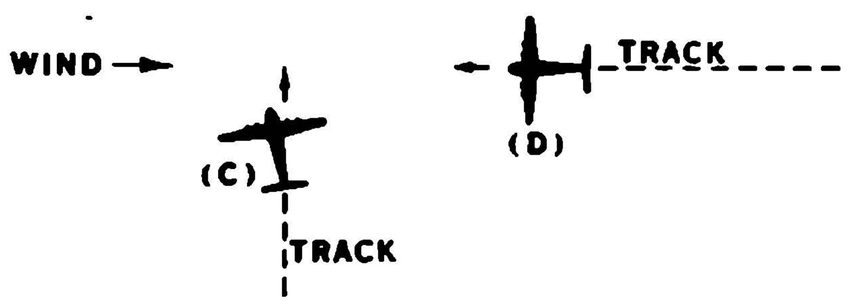
Airborne transponders and ground interrogators, making up the air traffic control radar beacon system, give controllers a positive radar return, overcoming the difficulty experienced with some aircraft that have poor reflecting characteristics. The primary functions of the radar beacon system are to provide reinforcement of radar replies, permitting the aircraft to be tracked reliably through heavy ground clutter and precipitation and a positive means of identifying aircraft to the air traffic controller. Radar beacons are frequently referred to as "secondary radars." Radar beacon procedures are published in Section II.

RADAR TRAFFIC INFORMATION

1. Radar traffic information is issued by air traffic controllers as a clock position with relation to the track of an aircraft. The examples depicted below point out the possible error in the position of this traffic when it is necessary for a pilot to apply drift correction to maintain this track. This error could also occur in the event a change in course is made at the time radar traffic information is issued.



In above example traffic information would be issued to the pilot of aircraft "A" as 12 o'clock. The actual position of the traffic as seen by the pilot of aircraft "A" would be one o'clock. Traffic information issued to aircraft "B" would also be given as 12 o'clock, but in this case, the pilot of "B" would see his traffic at 11 o'clock.



In above example traffic information would be issued to the pilot of aircraft "C" as two o'clock. The actual position of the traffic as seen by the pilot of aircraft "C" would be three o'clock. Traffic information issued to aircraft "D" would be at an 11 o'clock position. Since it is not necessary for the pilot of aircraft "D" to apply wind correction (crab) to make good his track, the actual position of the traffic issued would be correct. Since the radar controller can only observe aircraft track on his radar display, he must issue traffic advisories accordingly, and pilots should give due consideration to this fact when looking for reported traffic.

AIRPORT, AIR NAVIGATION LIGHTING AND MARKING AIDS

AERONAUTICAL (LIGHT) BEACONS

1. The aeronautical beacon is a visual navaid displaying flashes of white and/or colored light, which is used to indicate the location of airports, landmarks, and certain points of the Federal airways in mountainous terrain and to mark hazards. The principal light so used is a rotating beacon of relatively high intensity, which is often supplemented by nonrotating flashing lights of lesser intensity. (Reference FAA Technical Standard Order TSO–N7a.)
2. The color or color combination displayed by a particular beacon and/or its supplementary lights tells whether the beacon is indicating a landing place, landmark, point of the Federal airways, or hazard. Coded flashes of the supplementary lights, if employed, further identify the beacon site. •

ROTATING BEACON

1. The rotating beacon has a vertical light distribution such as to make it most effective at angles of one to three degrees above the horizontal from its site; however, it can be seen well above and below this peak spread. Rotation is in clockwise direction when viewed from above. It is always rotated at a constant speed which produces the visual effect of flashes at regular intervals. Flashes may be one or two colors alternately. The total number of flashes are:

   12 to 15 per minute for beacons marking airports, landmarks, and points on Federal airways.

   12 to 40 per minute for hazard beacons.

AUXILIARY LIGHTS

1. The auxiliary lights are of two general kinds: code beacons and course lights. The code beacon, which can be seen from all directions, is used to identify airports and landmarks and to mark hazards. The number of code beacon flashes are:
   a. **Green coded flashes** not exceeding 40 flashes or character elements per minute, or constant flashes 12 to 15 per minute, for identifying land airports.
   b. **Yellow coded flashes** not exceeding 40 flashes or character elements per minute, or constant flashes 12 to 15 per minute, for identifying water airports.
   c. **Red flashes,** constant rate, 12 to 40 flashes per minute, for marking hazards.
2. The course light, which can be seen clearly from only one direction, is used only with rotating beacons of the Federal Airway System; two course lights, back to back, direct coded flashing beams of light in either direction along the course of airway (see "Airway Beacons" below).

COLOR

1. The colors and color combinations of rotating bea and supplementary lights are basically:

White and Green ---	Lighted land airport
*Green alone -------	Lighted land airport
White and Yellow --	Lighted water airport
*Yellow alone ------	Lighted water airport
White and Red -----	Landmark or navigati point
White alone -------	Unlighted land airport (rare installation)
Red alone ----------	Hazard

*Green alone or yellow alone is used only in nection with a not far distant white-and- or white-and-yellow beacon display, respecti

LIGHTED LAND AIRPORTS (WHITE AND GREEN)

1. Alternating white and green flashes indicate the ence of a lighted land airport or intermediate at, or not very far from, the beacon site.
   a. **Alternating white and green flashes** from a r ing beacon indicate that the beacon is at, or in 2 miles of, a lighted airport or interme landing field. (This is the installation us seen).
   b. **A white and green combination** from a rot beacon flashing white only, accompanied by green flashes from directional course lights, n that the beacon is on a Federal airway and an intermediate field or airport (usually sma within 2 miles. (This installation is relat rare.)
   c. **Green flashes alone,** usually coded, from a code con used by itself, means that the code beac located at or beside a lighted airport. (Whe rotating beacon facility showing alternate and green is located more than 5000 feet the airport or landing field, the green-flashing beacon is used to show more exactly the loc of the landing area.)

LIGHTED WATER AIRPORTS (WHITE AND YELLOW)

1. White and yellow flashes indicate the presence lighted water airport at, or not very far from beacon site.
   a. **Alternating white and yellow flashes** from a r ing beacon indicate that the beacon is at, or in 2 miles of, a lighted water airport.

LIGHTED WATER AIRPORTS (Con't)

b. **Yellow flashes alone,** usually coded, from a code beacon used by itself, means that the code beacon is located at, or beside a lighted water airport—when there is a white and yellow flashing beacon within 2 miles. (When the rotating beacon showing alternate white and yellow is located more than 5000 feet from the water airport, the yellow flashing code beacon is used to show more exactly the location of the landing area.)

LANDMARKS (WHITE AND RED)

White and red flashes indicate the location of a natural or man-made landmark or a point on the Federal airways.

a. **Alternating white and red flashes** from a rotating beacon may be either a landmark or a site on the Federal airways.

b. **A white and red combination** from a rotating beacon flashing white only, accompanied by coded red flashes from directional course lights, means that the beacon marks a point on the Federal airways near which there is no landing area.

HAZARDS (RED ALONE)

Red flashes only from a rotating beacon or a code beacon mean the presence of an obstruction or obstructions to air navigation or an area on the ground used for purposes hazardous to air navigation. (Reference *"Obstruction Marking and Lighting Manual"* issued by the Federal Aviation Agency).

Steady burning red lights are employed near airports to mark obstructions and are also used to supplement flashing lights in marking en route obstructions.

MILITARY AIRPORTS

Military airport beacons flash alternately white and green, but are differentiated from civil beacons by dual-peaked (two quick) white flashes between the green flashes.

DAYLIGHT BEACON OPERATION

Operation of an airport rotating beacon during the hours of daylight, means that the ground visibility in the control zone is less than three miles and/or the ceiling is less than 1000 feet and that a traffic clearance is required for landings, take-offs, and flight in the traffic pattern.

AIRPORT IDENTIFYING CODE

Where airport identification is required, the code beacon for land or water airports may be assigned an exclusive code characteristic, which is printed on Sectional Aeronautical Charts.

AIRWAY BEACONS

Airway beacons are remnants of the "lighted" airways which antedated the present electronically equipped Federal Airway System. The lighted airways are delineated by rotating beacons spaced from 10 to 15 miles apart along the airway between airports, with an intermediate landing field at about every third beacon. Usually mounted on a tower with the rotating beacon were two directional flashing auxiliary lights, trained in either direction along the course of an airway, hence called course lights.

2. Each beacon site is numbered, and course lights when employed, flash an identifying code. Both the beacon site number and the corresponding code flash are printed on the Sectional Aeronautical Charts. The numbering bears a direct relation to the distance from the beacon to the city where the airway originates.

3. Federal airways are considered to extend from south to north and from west to east. For beacon numbering purposes, each airway is divided into ten-mile "blocks". A beacon is numbered according to block, or the distance it is located along the airway. For example, the course lights of the Number 3 beacon on the Salt Lake City-Great Falls airway, flashes a special code indicating "Site 3". This flashing code tells the pilot that he is about 30 miles north of Salt Lake City.

4. Occasionally two beacon sites fall within the same ten-mile block, in which case, they flash the same code number. This special code, numbering from 1 to 10, repeats itself along the airway. Accordingly, Sites 3, 13, 23, etc., will each flash the special code "3"; but this repetition should not be confusing because there will be 100 miles between the same code flash. Pilots should note that the block system of numbering and the decommissioning of certain beacons, often result in successive beacons not being in consecutive numerical order.

5. The special course light code, with a means of remembering it, is:

Directional Course Light Code

Beacon Number	1	2	3	4	5
Code Flashes	●▬	●●▬	●●●▬	●●●●	●▬●
International Code	When	Undertaking	Very	Hard	Routes
	6	7	8	9	10
	▬●▬	▬●●	▬●●●	▬▬●	▬▬
	Keep	Directions	By	Good	Methods

ROTATING BEACON VS CODE BEACON OR COURSE LIGHT

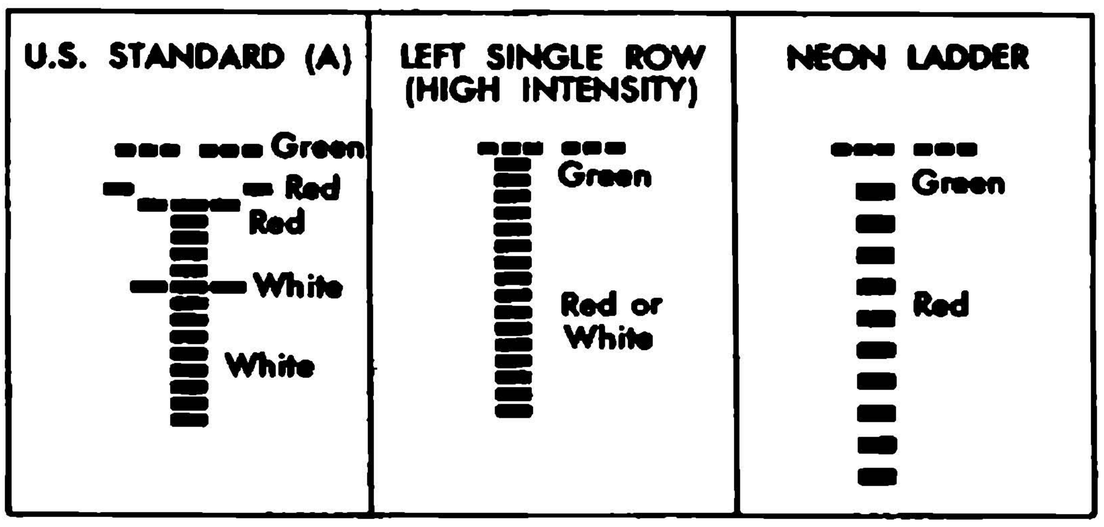
1. The flash of rotating beacons is produced by the revolving motion without change in light intensity and is therefore a sharp well-defined flash. The flash of code beacons and course lights is produced by making and breaking the electric circuit and the resulting heating and cooling of the lamp filament causes the light to rise perceptibly to a peak intensity and then fade. This provides one means for the pilot to tell them apart.

DEVIATIONS FROM STANDARDS

1. The foregoing outlines the intended installation and interpretation of aeronautical light beacons in accordance with agreed standards to which the beacons are required to conform in basic characteristics. However, pilots are alerted to the existence of occasional minor deviations from the exact installations described, and advised to make allowances for inconsistencies.

INSTRUMENT APPROACH LIGHT SYSTEMS

1. Instrument approach light systems provide the basic means for transition from instrument flight using electronic approach aids to visual flight and landing. Inadequate knowledge results in an increased probability of missed approaches during minimum weather conditions, imposing a greater burden on air traffic control facilities and delaying other aircraft.
2. Configuration "A" Centerline Approach Lighting System has been adopted as the U.S. National Standard One hundred and ninety-four of these systems have been commissioned to date with a total of 220 currently programmed. Although configuration "A" has been adopted as the U.S. Standard, the Neon Ladder and the Left Single Row configurations can still be found at a few civil airports. Approach and Landing Charts depict the approach light configuration at each airport.



3. Condenser-Discharge Sequenced Flashing Light Systems are installed at airports which have U.S. Standard "A" approach lights as a further aid to pilots making instrument approaches. The system consists of a series of brilliant blue-white bursts of light flashing in sequence along the approach lights. It gives the effect of a ball of light traveling towards the runway. An impression of the system as a pilot first observes the flashing lights when making an approach is that of large tracer shells rapidly fired from a point in space toward the runway. These light sources provide vital information to pilots approaching a runway under instrument conditions. They penetrate severe atmospheric conditions, attracting the pilot's eyes to the location of the approach lighting system.

VISUAL APPROACH SLOPE INDICATO (VASI)

1. VASI is designed to provide by visual referenc same information that the glide slope unit of an provides electronically. It provides a visual path within the approach zone, at a fixed plan clined 2½° to 4° from horizontal which an appr ing pilot can see and utilize for descent guidance ing an approach to a landing. The element of c guidance is obtained from reference to the ru lights.
2. Standard installation of the complete system co of 12 light source units arranged in light bars three units placed on each side of the runwa posite the 600-foot mark (threshold) and thr each side of the runway at the 1,300-foot mark. are the downwind and upwind bars respect The Visual Glide Slope reference point is mi between the upwind and downwind bars.
3. Provision is made for controlling the intensity lights and adjustments can be made at pilot re The VASI can normally be seen at the approx range of the outer marker (4–5 miles) and at gr distances at night. Under sunlight or snow tions the range is decreased to about 3.5 na miles.
4. The following is offered to pilots as yet unfa with the principles and operation of this systen the pilot technique required. The basic principle VASI is that of color differentiation between re white. Each light unit projects a beam of having a white color in the upper part and color in the lower part. The light units are arr so that the pilot of an aircraft during approac see the following:

(a) Above glide slope:	white white	white white
(b) On glide slope:	red white	red white
(c) Below glide slope:	red red	red red

5. When on the proper glide, the pilot is in effect shooting the bars nearer the threshold and shooting the bars farther down. Thus he wi the downwind bars as white and the upwind b red. A position below the glide path will caus bars to be red, and a high position will caus bars to be white. Impending departure from the path is indicated to the pilot by a transition in from red through pink to white or vice vers movement to the high side will cause the u bars to change from red through pink to whi descent below the glide path will change the wind bars from white through pink to red.

VISUAL APPROACH SLOPE INDICATOR (VASI) (Con't)

the pilot is below the glide path the pair of red bars visible on each side of the runway will tend to merge into one bold red signal on each side of the runway if descent continues to be excessive and takes the pilot well below the glide path.

6. In haze and dust conditions or when an approach is made into the sun, the white bars of the system may appear yellowish. This is also true at night when the VASI system is operated at a low intensity. Certain atmospheric debris may give the white lights an orange or brownish tint; however, the red lights are not affected and the principle of color differentiation is still applicable.

IN-RUNWAY LIGHTING

1. Touchdown zone lighting and runway centerline lighting are installed on some precision approach runways to facilitate landing under adverse visibility conditions. Taxiway turnoff lights may be added to expedite movement of aircraft from the runway.
   a. **Touchdown Zone Lighting**—two rows of transverse light bars disposed symmetrically about the runway centerline in the runway touchdown zone. The system generally extends from 75 to 125 feet of the landing threshold to 3000 feet down the runway.
   b. **Runway Centerline Lighting**—flush centerline lights spaced at 25-foot intervals beginning 75 feet from the landing threshold and extending to within 75 feet of the opposite end of the runway.
   c. **Taxiway turnoff lights**—flush lights spaced at 12½-foot intervals, defining the curved path of aircraft travel from the runway centerline to a point on the taxiway.

RUNWAY END IDENTIFIER LIGHTS (REIL)

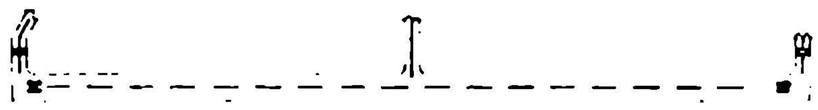
1. Runway End Identifier Lights are installed at many airfields to provide rapid and positive identification of the approach end of a particular runway. The system consists of a pair of synchronized flashing lights, one of which is located laterally on each side of the runway threshold facing the approach area. They are effective for:
   a. Identification of a runway surrounded by a preponderance of other lighting.
   b. Identification of a runway which lacks contrast with surrounding terrain.
   c. Identification of a runway during reduced visibility.

MARKING

1. In the interest of safety, regularity, or efficiency of aircraft operations, the FAA has recommended for the guidance of the public the following airport marking.
   Runway numbers and letters are determined from the approach direction. The number is the whole number nearest one-tenth the magnetic azimuth of the centerline of the runway, measured clockwise from the magnetic north.) The letter or letters differentiate between parallel runways:

   For two parallel runways "L" "R"
   For three parallel runways "L" "C" "R"

   a. **Basic Runway Marking**—markings used for operations under Visual Flight Rules: centerline marking and runway direction numbers.

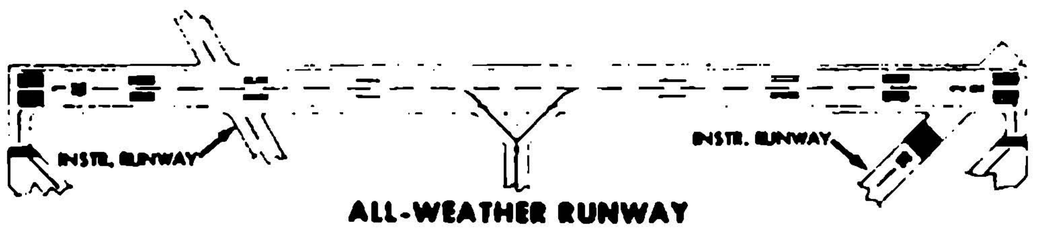


BASIC RUNWAY

   b. **Instrument Runway Marking**—markings on runways served by a nonvisual navigation aid and intended for landings under instrument weather conditions: basic runway markings plus threshold marking.

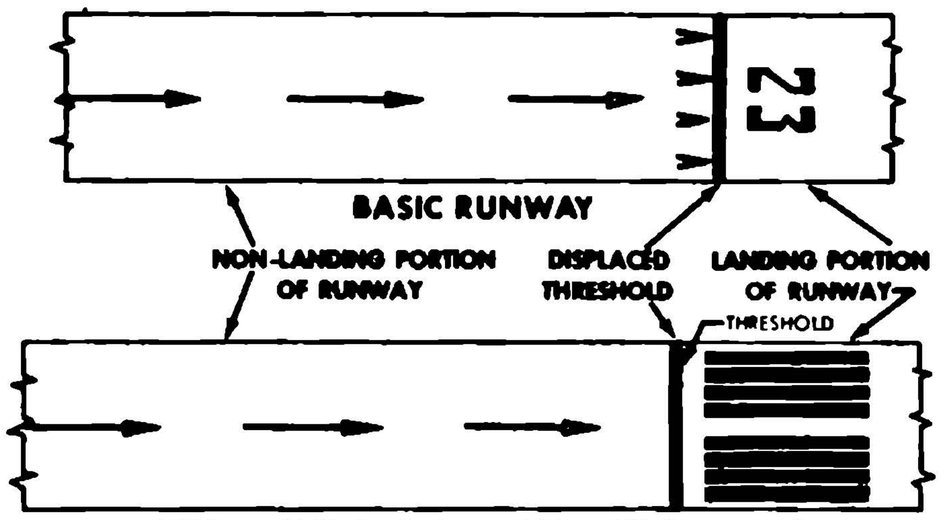
INSTRUMENT RUNWAY

   c. **All-Weather Runway Marking**—markings on runways served by non-visual precision approach aids and on runways having special operational requirements: instrument runway marking, landing zone marking, plus side stripes.



ALL-WEATHER RUNWAY

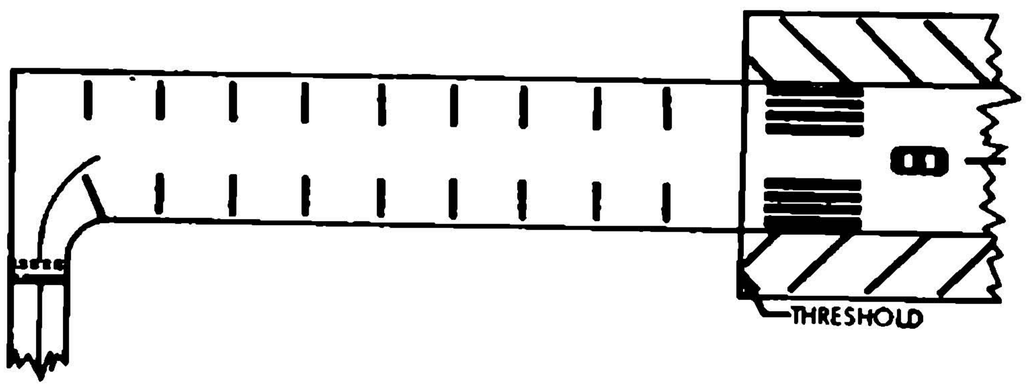
   d. **Threshold**—A line perpendicular to the runway centerline designating the beginning of that portion of a runway usable for landing.
   e. **Displaced Threshold**—A threshold that is not at the beginning of the full strength runway pavement.



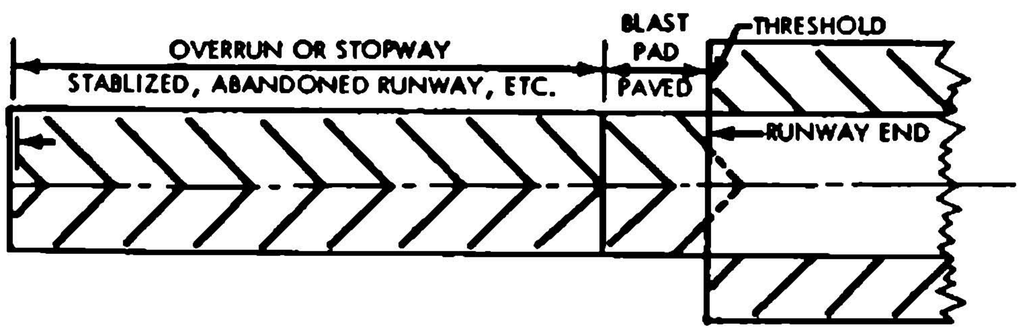
INSTRUMENT AND ALL-WEATHER RUNWAY

MARKING (Con't)

f. **Deceptive Area**—Any surface or area which appears usable but which, due to the nature of its structure, is not intended for normal operational use by aircraft.



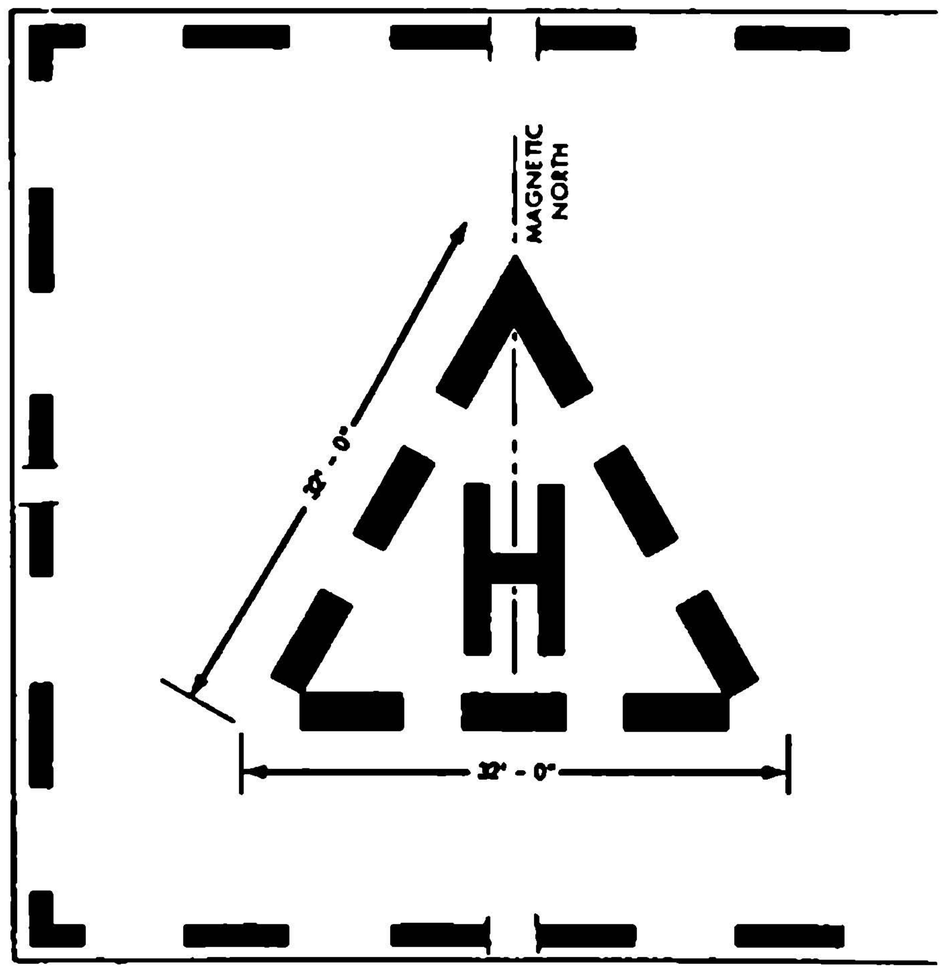
g. **Overrun/Stopway Area Marking**—A surface extending beyond the runway, used for decelerating an airplane during an aborted takeoff.



h. **Closed Runway or Taxiway.**

i. **Detailed Airport Marking information is published FAA Advisory Circulars 150/5340–1 "Marking of Serv able Runways and Taxiways" and 150/5340–7 "M ing of Deceptive, Closed, and Hazardous Areas on . ports.**

HELICOPTER LANDING AREA



RADIOTELEPHONE PHRASEOLOGY AND TECHNIQUES

AIRCRAFT CALL SIGNS

1. During the initial contact with a ground station, the complete aircraft call sign is used. Civil itinerant aircraft pilots should use the make or type name of their aircraft, followed by the complete certification number.

   Example:

   "CESSNA ONE THREE FIVE SIX TWO YANKEE."

2. Air carrier aircraft pilots may utilize their company name or abbreviated name, followed by their trip number in group form.

   Example:

   "UNITED TWENTY-FIVE."

3. Military aircraft pilots may use whichever of the following is applicable:

   a. The service name or designated prefix followed by the last 5 digits of the serial number.

   Example:

   "AIR FORCE ('JET' when appropriate) FOUR FOUR NINER THREE TWO" or "MATS FOUR FOUR NINER THREE TWO."

   b. The service name or designation followed by the word "RESCUE" and the 5 digits of the serial number.

   c. Assigned voice call signs consisting of a selected authorized code word followed by a two-digit flight number.

   Example:

   "ANDY TWO ZERO."

   d. Assigned double-letter, two-digit flight numbers.

   Example:

   "ALPHA KILO ONE FIVE."

4. After radio contact has been established, and when conditions warrant, the call signs of itinerants may be reduced to the prefix followed by not less than the last three digits or letters of the full call sign.

   Example:

   "CESSNA SIX TWO YANKEE."

GROUND STATION CALL SIGNS

1. Ground station call signs shall comprise the name of the location or airport, followed by the appropriate indication of the type of station:

   OAKLAND TOWER (airport traffic control tower);
   MIAMI GROUND CONTROL (ground control position in tower);
   DALLAS CLEARANCE DELIVERY (IFR clearance delivery position);
   IDLEWILD APPROACH CONTROL (tower radar or nonradar approach control position);
   ST. LOUIS DEPARTURE CONTROL (tower radar departure control position);
   WASHINGTON RADIO (FAA Flight Service Station);
   NEW YORK CENTER (FAA Air Route Traffic Control center).

CONTACT PROCEDURE

1. Each contact generally comprises four parts as follows:

   a. **The Call-up,** consisting of the call sign of the station being called, the words "THIS IS", the call sign of the caller, and the word "OVER."

   b. **The Reply,** consisting of the call sign of the station being replied to, the words "THIS IS", the call sign of the replying station, and the word "OVER."

   c. **The Message,** is that portion of the contact which conveys information or requests same.

   d. **The Acknowledgement and Ending,** consisting of the aircraft call sign (regardless of whether the acknowledgment is being made by an aircraft or ground station) the word "ROGER" and, if the contact is to be closed, the word "OUT."

2. Radiotelephone contacts may be abbreviated by omitting the words "THIS IS", "OVER" and "OUT" during periods of high radio activity and when no confusion or misunderstanding is liable to occur. When a message is short or when it is probable that the call-up will be heard without difficulty, the message may be transmitted following the call-up without waiting for a reply or invitation to go ahead.

3. In the folowing example the words which may be omitted under abbreviated procedures are enclosed within parentheses:

   Aircraft—CLEVELAND TOWER (THIS IS) BEECHCRAFT ONE EIGHT FOUR ONE, OVER.

   Tower—BEECHCRAFT ONE EIGHT FOUR ONE (THIS IS) CLEVELAND TOWER, (OVER).

   Aircraft—(CLEVELAND TOWER) (THIS IS) BEECHCRAFT (ONE) EIGHT FOUR ONE, FOUR MILES SOUTH (AT) ONE THOUSAND, LANDING AT CLEVELAND, OVER.

   Tower—BEECHCRAFT EIGHT FOUR ONE, FOUR MILES SOUTH (AT) ONE THOUSAND (CLEARED TO ENTER TRAFFIC PATTERN) RUNWAY ONE EIGHT, WIND SOUTH ONE TWO, OVER.

CONTACT PROCEDURE (Con't)

Aircraft—BEECHCRAFT EIGHT FOUR ONE (ROGER) (OUT).

Tower—(CLEVELAND TOWER, OUT).

4. After contact has been definitely established, it may be continued without further call-up or identification.

MICROPHONE TECHNIQUE

1. Proper microphone technique is important in radiotelephone communications. Transmissions should be concise and in a normal conversational tone.

NOTE.—Identification of Aircraft—Pilots are requested to exercise care that the identification of their aircraft is clearly transmitted in each contact with an ATC facility. Also pilots should be certain that their aircraft are clearly identified in ATC transmissions before taking action on an ATC clearance. Garbled aircraft identifications in radiotelephone transmissions should never be taken for granted but should always be checked.

2. When originating a radiotelephone call-up to any air-ground facility, indicate the channel on which reply is expected, if other than normal.
3. Keep your contacts as brief as possible. Pilots should not read back altimeter setting, taxi instructions, wind and runway information to towers except for verification or clarification of instructions. Other pilots are waiting to use the channel.
4. Contact the nearest Flight Service Station. Don't continually attempt to see how far your transmitter will reach.
5. Avoid calling stations at 15 and 45 minutes past the hour, because of interference with scheduled weather broadcasts.
6. When making a position report, pilots should in all cases state the name of the reporting point over which, or in relation to which, they are reporting. The phrase "OVER YOUR STATION" should not be used.

PROCEDURE WORDS AND PHRASES

1. The following words and phrases should be used where practicable in radiophone communications:

Word or Phrase	Meaning
ACKNOWLEDGE	"Let me know that you have received and understood this message."
AFFIRMATIVE	"Yes."
CORRECTION	"An error has been made in this transmission. The correct version is . . ."
GO AHEAD	"Proceed with your message."
HOW DO YOU HEAR ME?	Self-explanatory.
I SAY AGAIN	Self-explanatory.
NEGATIVE	"That is not correct."
OUT	"This conversation is ended ar no response is expected."
OVER	"My transmission is ended ar I expect a response from you
READ BACK	"Repeat all of this message ba to me."
ROGER	"I have received all of your la transmission." (To acknov edge receipt, shall not be us for other purposes.)
SAY AGAIN	Self-explanatory.
SPEAK SLOWER	Self-explanatory.
STAND BY	"If used by itself means 'I mu pause for a few seconds.' the pause is longer than a fe seconds, or if 'STAND BY' used to prevent another st tion from transmitting, must be followed by the en ing 'OUT'."
THAT IS CORRECT	Self-explanatory.
VERIFY	"Check with originator."
WORDS TWICE	(a) As a request: "Communic tion is difficult. Please s every phrase twice." (b) As information: "Since co munication is difficult, eve phrase in this message will spoken twice."

TIME

1. The Federal Aviation Agency utilizes Greenwi Mean Time (GMT or "Z") for all operational pu poses. Pilots are encouraged also to use GMT i aeronautical operational purposes; however, FA facilities will accept local time if the pilot so desir

To Convert From:	To Greenwich Mean Time:
Eastern Standard Time	Add 5 hours
Eastern Daylight Time	Add 4 hours
Central Standard Time	Add 6 hours
Central Daylight Time	Add 5 hours
Mountain Standard Time	Add 7 hours
Mountain Daylight Time	Add 6 hours
Pacific Standard Time	Add 8 hours
Pacific Daylight Time	Add 7 hours

2. The 24-hour clock system is used in radiotelepho transmissions. The hour is indicated by the first t figures and the minutes by the last two figures.

Examples:

0000 ZERO ZERO ZERO ZE
0920 ZERO NINER TWO ZE

3. Time may be stated in minutes only (two figures) radio telephone communications when no misund standing is likely to occur.

TIME (Con't)

4. Current time in use at a station is stated in the nearest quarter minute in order that pilots may use this information for time checks. Fractions of a quarter minute less than eight seconds are stated as the preceding quarter minute; fractions of a quarter minute of eight seconds or more are stated as the succeeding quarter minute.

Examples:

Time	
0929:05	____TIME, ZERO NINER TWO NINER
0929:10	____TIME, ZERO NINER TWO NINER AND ONE-QUARTER
0929:28	____TIME, ZERO NINER TWO NINER AND ONE-HALF

FIGURES

1. Figures indicating hundreds and thousands in round numbers, as for ceiling heights, and upper wind levels up to 9900 shall be spoken in accordance with the following examples:

500	_____FIVE HUNDRED
1300	_____ONE THOUSAND THREE HUNDRED
4500	_____FOUR THOUSAND FIVE HUNDRED
9900	_____NINER THOUSAND NINER HUNDRED

2. Numbers above 9900 shall be spoken by separating the digits preceding the word "thousand." Examples:

10000	_____ONE ZERO THOUSAND
13000	_____ONE THREE THOUSAND
18500	__ONE EIGHT THOUSAND FIVE HUNDRED
27000	_____TWO SEVEN THOUSAND

3. All other numbers shall be transmitted by pronouncing each digit.

Examples:

10	_____ONE ZERO
75	_____SEVEN FIVE
583	_____FIVE EIGHT THREE
1850	_____ONE EIGHT FIVE ZERO
18143	_____ONE EIGHT ONE FOUR THREE
26075	_____TWO SIX ZERO SEVEN FIVE

The digit "9" shall be spoken "NINER".

4. When a radio frequency contains a decimal point, the decimal point is spoken as "POINT."

Examples:

122.1	_____ONE TWO TWO POINT ONE
126.7	_____ONE TWO SIX POINT SEVEN

(ICAO Procedures require the decimal point be spoken as "DECIMAL" and FAA will honor such usage by military aircraft and all other aircraft required to use ICAO Procedures.)

FLIGHT ALTITUDES

1. Up to but not including 18,000′ MSL—by stating the separate rate digits of the thousands, plus the hundreds, if appropriate.

Examples:

12,000	_____ONE TWO THOUSAND
12,500	___ONE TWO THOUSAND FIVE HUNDRED

2. At and above 18,000′ MSL (FL 180) by stating the words "flight level" followed by the separate digits of the flight level.

Examples:

190	_____FLIGHT LEVEL ONE NINER ZERO
275	_____FLIGHT LEVEL TWO SEVEN FIVE

PHONETIC ALPHABET

1. Phonetic letter equivalents are communications safety tools to be used only when receiving conditions are such that the information cannot be readily received without their use. Under such adverse communications, phonetic equivalents are employed for single letters, or to spell out groups of letters or difficult words.

2. The International Civil Aviation Organization (ICAO) phonetic alphabet is normally used by FAA personnel. However, different phonetic equivalents may be used by pilots, or, upon the pilot's request may be used by FAA during communciations with such pilots.

A	●▬	Alfa	(AL-FAH)
B	▬●●●	Bravo	(BRAH-VOH)
C	▬●▬●	Charlie	(CHAR-LEE) (or SHAR LEE)
D	▬●●	Delta	(DELL-TAH)
E	●	Echo	(ECK-OH)
F	●●▬●	Foxtrot	(FOKS-TROT)
G	▬▬●	Golf	(GOLF)
H	●●●●	Hotel	(HOH-TEL)
I	●●	India	(IN-DEE-AH)
J	●▬▬▬	Juliett	(JEW-LEE-ETT)
K	▬●▬	Kilo	(KEY-LOH)
L	●▬●●	Lima	(LEE-MAH)
M	▬▬	Mike	(MIKE)
N	▬●	November	(NO-VEM-BER)
O	▬▬▬	Oscar	(OSS-CAH)
P	●▬▬●	Papa	(PAH-PAH)
Q	▬▬●▬	Quebec	(KEH-BECK)
R	●▬●	Romeo	(ROW-ME-OH)
S	●●●	Sierra	(SEE-AIR-RAH)
T	▬	Tango	(TANG-GO)
U	●●▬	Uniform	(YOU-NEE-FORM) (or OO-NEE-FORM)
V	●●●▬	Victor	(VIK-TAH)
W	●▬▬	Whiskey	(WISS-KEY)
X	▬●●▬	Xray	(ECKS-RAY)
Y	▬●▬▬	Yankee	(YANG-KEY)
Z	▬▬●●	Zulu	(ZOO-LOO)
1	●▬▬▬▬	Wun	
2	●●▬▬▬	Too	
3	●●●▬▬	Tree	
4	●●●●▬	Fow-er	
5	●●●●●	Fife	
6	▬●●●●	Six	
7	▬▬●●●	Sev-en	
8	▬▬▬●●	Ait	
9	▬▬▬▬●	Nin-er	
0	▬▬▬▬▬	Zero	

ALTIMETRY

GENERAL

1. The accuracy of aircraft altimeters is subject to the following factors: (a) nonstandard temperature of the atmosphere; (b) aircraft static pressure systems (position error); and (c) instrument error. Pilots should disregard the effect of nonstandard atmospheric temperatures except that low temperatures need to be considered for terrain clearance purposes.

NOTE.—Standard temperature at sea level is 15° C. (59° F.). The temperature gradient from sea level is 2° C. (3.5° F.) per 1000 feet. Pilots should apply corrections for static pressure systems and/or instruments, if appreciable errors exist.

2. Experience gained with the present volume of jet operations has led to the adoption of a standard altimeter setting for flights operating in the higher altitudes. A standard setting eliminates altitude conflicts caused by altimeter settings derived from different geographical sources. In addition, it eliminates station barometer errors and some of the altimeter instrument errors. The following outlines the current procedures in effect:

a. The cruising altitude or flight level of aircraft shall be maintained by reference to an altimeter which shall be set, when operating:

(1) **Below 18,000 feet MSL**—to the current reported altimeter setting of a station along the route and within 100 nautical miles of the aircraft; or, if there is no station within this area, to the current reported altimeter setting of an appropriate available station. In the case of an aircraft not equipped with a radio, set to the elevation of the departure airport or use an appropriate altimeter setting available prior to departure.

(2) **At or above 18,000 feet MSL (FL 180)**—to 29.92" Hg (standard setting).

NOTE.—The lowest usable flight level is determined by the atmospheric pressure in the area of operation, as shown in the following table:

Altimeter Setting (Current Reported)	Lowest usable flight level
29.92 or higher	180
29.91 to 29.42	185
29.41 to 28.92	190
28.91 to 28.42	195
28.41 to 27.92	200

(3) Where the minimum altitude, as prescribed in FAR Parts 91.79 and 91.119, is above 18,000 feet M.S.L. the lowest usable flight level shall be the flight level equivalent of the minimum altitude plus the number of feet specified the following table:

Altimeter Setting	Correction Factor
29.92 or higher	None
29.91 to 29.42	500 feet
29.41 to 28.92	1000 feet
28.91 to 28.42	1500 feet
28.41 to 27.92	2000 feet
27.91 to 27.42	2500 feet

NOTE.—For example, the minimum safe altitude of route is 19,000 feet MSL and the altitmeter setting is reported between 29.92 and 20.42 Hg., the lowest usal flight level will be 195, which is the flight level equivale of 19,500 feet M.S.L. (minimum altitude plus 500 feet).

ALTIMETER SETTING SERVICE

1. Aircraft on an IFR flight plan and in direct commun cation with the Air Route Traffic Control Cent (ARTCC) will be issued altimeter settings by t ARTCC as follows:

a. En route aircraft will be given the altimeter se ting for the weather reporting station associat with a navigational aid designated as a compu sory reporting point within the appropriate ce ter's area of jurisdiction, at the time the positi report is acknowledged.

b. Aircraft departing a terminal area are normal provided an altimeter setting prior to departu However, if such aircraft are required to rema in direct communication with a Center, they w be given altimeter settings in accordance wi paragraph a. above, when they are beyond 50 na tical miles of the point of departure.

c. Aircraft destined for a terminal within a Cente control area will be given the destination termin altimeter setting, if available, when approximate 50 nautical miles from destination. Thereaft additional altimeter setting service in accordan with paragraph a. above, normally will not be pr vided.

d. Pilots of aircraft operating below Flight Level 1 who have been advised to omit position repor will be furnished the appropriate altimeter setti when passing compulsory reporting points as o served by radar.

e. Available altimeter settings will be furnished f any other weather reporting stations within a Ce ter's control area if requested by a pilot. R quests for altimeter settings of stations outside a Center's control area will normally be referred the appropriate communications facility.

ALTIMETER SETTING SERVICE (Con't)

f. When providing altimeter setting service, Centers will use the following phraseology:

"THE (Time) (Station Location) ALTIMETER (Setting)"

Example:

"THE ONE FOUR ONE FIVE COLUMBUS ALTIMETER THREE ZERO ZERO ZERO."

g. Altimeter settings will not be furnished aircraft that are maintaining flight levels except:

(1) When requested by the pilot.

(2) When a descent clearance is issued from flight level to cruising altitude.

2. Airport traffic control towers provide current altimeter settings:

a. To departing aircraft (IFR or VFR) unless the pilot has other preferred means of securing the setting.

b. To all arriving aircraft operating on IFR flight plans (except non-approach control towers when the approach clearance has been issued through another source);

c. Upon specific request of pilots.

3. Flight Service Stations issue current altimeter settings:

a. In scheduled weather broadcasts (15 and 45 minutes past the hour);

b. In terminating communications with aircraft operating below 18,000'.

c. Upon specific request.

WEATHER

GENERAL

1. The U.S. Weather Bureau maintains a comprehensive surface and upper air weather observing program and a nation-wide aviation weather forecasting and pilot briefing service.
2. Weather observations are made each hour or more often at over 600 locations in the United States. These observations may be used to determine the present weather conditions for flight planning purposes.
3. Every six hours the Weather Bureau's Aviation Forecasting Centers prepare detailed flying weather forecasts for 12-hour periods for about 385 air terminals in the United States including Alaska and Hawaii. In addition, 24-hour terminal forecasts are provided for about 120 major airports throughout the country. Every six hours a detailed 12-hour area forecast is prepared for each of the 29 areas into which the continental United States has been divided for forecasting purposes. In Hawaii, forecasts are issued for the main traveled air routes instead of areas. Winds aloft forecasts are provided for about 150 locations in the United States including Alaska and Hawaii for flight operational purposes. All of the above flying weather forecasts are given wide distribution via teletypewriter circuits.
4. Available aviation weather reports and forecasts are displayed at each Weather Bureau Station and FAA Flight Service Station. Pilots should feel free to help themselves to this information or to ask the assistance of the duty employee.
5. When telephoning for information, use the following procedures:
   a. Identify yourself as a pilot and give aircraft identification if known. (Many persons calling WB stations want information for purposes other than flying.)
   b. State your intended route, destination, proposed departure time, and estimated time en route.
   c. Advise if prepared to fly IFR.
6. Direct pilot-to-weather briefer service is available by radio contact with any Flight Service Station operated by the FAA. Flight Service Specialists are qualified and certificated by the USWB as Pilot Weather Briefers. They are not authorized to make original forecasts but are authorized to adapt, translate and interpret available forecasts and reports directly into terms of the weather conditions which you can expect along your flight route and at destination. They also will assist you in selecting an altern course of action in the event adverse weather is countered. It is not necessary to be thoroughly miliar with the standard phraseologies and procedu for air/ground communications. A brief call stat your message in your own words will receive mediate attention.

TRANSCRIBED WEATHER BROADCASTS

1. Equipment is provided at selected FAA FSSs which meteorological and Notice to Airmen dat recorded on tapes and broadcast continuously o the low-frequency (200–400 kc) navigational (L/MF range or H facility).
2. Broadcasts are made from a series of individual t recordings. The first three tapes identify the stat give general weather forecast conditions in the a pilot reports (PIREP), radar reports when availa and winds aloft data. The remaining tapes cont weather at selected locations within a 400-mile rad of the central point. Changes, as they occur transcribed onto the tapes.

SCHEDULED WEATHER BROADCASTS

1. All Flight Service Stations having voice facilities continuously operated radio ranges or radio beac broadcast weather reports and other airway infor tion at 15 and 45-minutes past each hour. The minute past the hour broadcast is an "airway" bro cast consisting of weather reports from import terminals located on airways within approxima 400 miles of the broadcasting station. The 15-min past the hour broadcast is an "area" broadcast c sisting of weather reports from the stations wit approximately 150 miles of the broadcasting statio
2. At each station, the material broadcast on sched and the order in which it is broadcast follows:
   a. Alert notice announcement.
   b. SIGMET (Significant Meterology) or Advis for Light Aircraft (if available).
   c. Pilot report/s when available.
   d. Radar report/s if available.
   e. Aviation weather.
   f. Flight information—any non-meteorological in mation not a part of a weather report but wh requires broadcast.
   g. Additional special weather reports and some tice to Airmen data are broadcast off-sched upon receipt.

   NOTE.—Winds aloft forecast will be transmitted only pilot's request.

SCHEDULED WEATHER BROADCASTS (Con't)

3. The time of observation of weather reports included in a scheduled broadcast normally is 58 minutes past the hour preceding the broadcast. When the time of observation is otherwise, the observation time is given.

WEATHER BROADCAST FORMAT

1. SCHEDULED WEATHER BROADCASTS

a. Scheduled Weather Broadcast (15 and 45 minutes past each hour): Each broadcast begins with the announcement of the station name, the time the broadcast is started, spoken in two digits or two digits and a fraction, and the title "Aviation Weather."

Example:

This is (station name), time one five (or one five and one quarter; one five and one half, etc.), aviation weather.

b. The reporting location name is spoken twice; except in transcribed weather broadcasts the location name of selected weather reports is announced only once on recording tapes.

2. UNSCHEDULED BROADCASTS

a. The data being broadcast is identified immediately following the station name. The time is announced as specified above for scheduled broadcasts. The reporting location name is spoken twice, followed by the time of observation of special (SPL) weather reports stated in two digits indicating minutes only.

Examples:

This is (station name) time three niner, Special Weather Report (location name, spoken twice) three seven observation.

This is (station name) time two niner, Notice to Airmen (location name spoken twice).

IN-FLIGHT WEATHER SAFETY ADVISORIES

1. The Weather Bureau issues in-flight safety advisories in two categories—SIGMET (Significant Meteorology) and ADVISORY FOR LIGHT AIRCRAFT. The SIGMET category applies specifically (but not exclusively) to transport and military aircraft—the other is self-evident.

2. These safety advisories are issued in the 48 contiguous States.

3. The SIGMET category includes weather phenomena of particular significance to the safety of transport (multi-engine aircraft over 12,500 pounds gross) and other aircraft. The ADVISORY FOR LIGHT AIRCRAFT category includes weather phenomena of less severity than that covered by SIGMET but is important to the safety of light aircraft (single and twin-engine aircraft of 12,500 pounds gross and less). It is important to note that both SIGMET and ADVISORY FOR LIGHT AIRCRAFT messages apply to the operation of light aircraft.

4. SIGMET advisories cover:
   a. Tornadoes.
   b. Lines of thunderstorms (squall lines).
   c. Hail ¾" or more.
   d. Severe and extreme turbulence.
   e. Heavy icing.
   f. Widespread duststorms/sandstorms, lowering visibilities of less than two miles.

5. ADVISORIES FOR LIGHT AIRCRAFT cover
   a. Moderate icing.
   b. Moderate turbulence.
   c. The initial onset of phenomena producing extensive areas of visibilities less than two miles or ceilings less than 1000 feet, including mountain ridges and passes, and winds of 40 knots or more within 2000 feet of the surface.

6. The following are samples of the two types of advisories:
   a. CHICAGO SIGMET NO. 3. WISCONSIN SOUTH OF LINE FROM LA CROSSE TO GREEN BAY HEAVY ICING IN CLOUDS 4000 to 8000 FEET MSL. MEMPHIS ADVISORY FOR LIGHT AIRCRAFT NO. 1. TENNESSEE SOUTH OF LINE FROM DYERSBURG TO CROSSVILLE CONDITIONS LOWERING RAPIDLY IN RAIN AND FOG TO BELOW 800 FEET AND 2 MILES BY 1200C. HIGHER TERRAIN OBSCURED.
   b. KANSAS CITY SIGMET NO. 2. SOLID LINE THUNDERSTORMS 50 MILES WIDE FROM GRAND ISLAND TO HILL CITY TO GARDEN CITY AT 1400C MOVING EAST 35 KNOTS REACHING LINCOLN-SALINA-HUTCHINSON LINE BY 1800C. THUNDERSTORMS LOCALLY SEVERE WITH ¾-INCH HAIL AND SEVERE TO EXTREME TURBULENCE.
   c. WASHINGTON SIGMET NO. 1 SEVERE CLEAR AIR TURBULENCE EXTENDING FROM SOUTH CENTRAL VIRGINIA THROUGH DELAWARE AT 14,000 TO 24,000 FEET. ADDITIONAL ADVISORY FOR LIGHT AIRCRAFT. OVER EASTERN VIRGINIA, EASTERN MARYLAND, AND DELAWARE MODERATE ICING IN CLOUDS 2000 TO 8000 FEET DECREASING BUT WITH WINDS LOWER LEVELS BECOMING 40 TO 50 KNOTS SOON AFTER 0800E ACCOMPANIED BY MODERATE TURBULENCE.

7. FAA Flight Service Stations (FSS) broadcast SIGMETs and ADVISORIES FOR LIGHT AIRCRAFT, when they pertain to the area within 150 NM of the FSS, as follows:
   a. SIGMETs—At 15 minute intervals at H+00, H+15, H+30 and H+45; ADVISORIES FOR LIGHT AIRCRAFT—At half hourly intervals at H+15 and H+45. SIGMETs and ADVISORIES FOR LIGHT AIRCRAFT are broadcast during the valid period and are included in the regular scheduled broadcasts at H+15 and H+45.

8. When a SIGMET is issued, the ARTCC within whose area it applies, the en route control towers within

IN-FLIGHT WEATHER SAFETY ADVISORIES (Con't)

the area, and selected FSSs make the following announcement on en route air-ground channels:

a. FOR (name issuing Flight Advisory Weather Service) SIGMET (number of SIGMET) MONITOR VOR VOICE

9. Pilots hearing this announcement must not interrupt their guard of ATC channels (without prior permission of the ATC facility) but should use the audio of their VOR voice channel until SIGMET broadcast is intercepted.

10. The purpose of the SIGMET service is to make available to any aircraft in flight, information on weather which may be hazardous to the flight. Whether or not the weather condition described is potentially hazardous to a particular flight is for the pilot himself to evaluate on the basis of his own experience and qualifications and the operational limits of his aircraft.

PILOT WEATHER REPORTS (PIREPS)

1. Whenever ceilings at or below 5,000 feet, visibilities at or below five miles, or thunderstorms are reported or forecast, FAA Stations are required to solicit and collect PIREPS which describe conditions aloft. Pilots are urged to cooperate and volunteer reports of cloud tops, upper cloud layers, thunderstorms, ice, turbulence, strong winds, and other significant flight condition information. Such conditions observed between weather reporting stations are vitally needed. The PIREPS should be given to the FAA ground facility with which communication is established, i.e., FSS or Air Route Traffic Control Center. In addition to complete PIREPS, pilots can materially help round out the in-flight weather picture by adding to routine position reports, both VFR and IFR, the following phrases as appropriate:

ON TOP
BELOW OVERCAST
WEATHER CLEAR
MODERATE (or HEAVY) ICING
MODERATE, SEVERE, EXTREME TURBULENCE
FREEZING RAIN (or DRIZZLE)
THUNDERSTORM (location)
BETWEEN LAYERS
ON INSTRUMENTS
ON AND OFF INSTRUMENTS

2. If pilots are not able to make PIREPS by radio, reporting upon landing of the in-flight conditions encountered to the nearest Flight Service Station or Weather Bureau Airport Station will be helpful. Some of the uses made of the reports are:

a. The airport traffic control tower uses the reports to expedite the flow of air traffic in the vicinity of the field and also forwards reports to other interested offices.

b. The Flight Service Station uses the reports to brief other pilots.

c. The local Weather Bureau Office uses the rep in briefing other pilots and in forecasting.

d. The Air Route Traffic Control Center uses the ports to expedite the flow of en route traffic determine most favorable altitudes.

e. The Weather Bureau Flight Advisory Weat Service finds pilot reports very helpful in issu advisories of hazardous weather conditions. T office also uses the reports to brief other pil and in forecasting.

REPORTING OF CLOUD HEIGHTS

1. Ceiling, by definition in Part I Federal Aviation Re lations, and as used in Aviation Weather Reports Forecasts, is the height *above ground* (*or wat level* of the lowest layer of clouds or obscur phenomenon that is reported as "broken", "overca or "obscuration" and not classified as "thin" "partial". For example, a forecast which re "CIGS WILL BE GENLY 1 TO 2 THSD FE refers to heights *above ground level* (AGL). On other hand, a forecast which reads "BRKN TO O LYRS AT 8 TO 12 THSD MSL" states that height is *above mean sea level* (MSL).

2. Pilots usually report height values above mean level, since they determine heights by the altimet This is taken in account when disseminating a otherwise applying information received from pilo ("Ceilings" are always heights above ground leve In reports disseminated as PIREPS, height referen are given the same as received from pilots, that above mean sea level (MSL or ASL). In the follo ing example, however, a pilot report of the heig of the bases and tops of an overcast layer in t terminal area is used in two ways in a surface av tion weather report:

A12⊕2FK 132/49/47/0000/ØØ2/⊕23

3. In this example the weather station has convert the pilot's report of the height of base of the ov cast from the height (MSL) indicated on the pilo altimeter to height above ground and has shown the prefix "A" that the ceiling height was determi by an aircraft. The height of cloud tops shown remarks (⊕23) is *above mean sea level* (ASL MSL) as initially reported by the pilot.

4. In aerial forecasts (Regional, Area, or In-fli Advisories), ceilings are denoted by the prefix " when used with sky cover symbols as in "LWRG C5⊕1TRW", or by the contraction "CIG" before, the contraction "AGL" after, the forecast cloud hei value. When the cloud base is given in height ab mean sea level, it is so indicated by the contract "MSL" or "ASL" following the height value. T heights of cloud tops, freezing level, icing and t bulence are always given in heights above mean s level (ASL or MSL).

5. Attention is invited to the Weather Bureau publi tion "Key to Aviation Weather Reports and Fo casts." This is an easy-reference card which expla

REPORTING OF CLOUD HEIGHTS (Con't)

how to read aviation weather reports and forecasts and how ceiling and cloud heights are identified. This card can be obtained from the nearest USWB office or from the USWB, Washington, D.C. (See sample card on page I-30.)

VISIBILITY OBSERVATIONS

1. Recent advances in meteorological measuring and reporting techniques have resulted in the use of new terminology in presenting visibility. In an attempt to clarify the differences between the various terms currently in use, a brief synopsis of each is presented below.

   a. **Prevailing Visibility** is the greatest horizontal distance at which targets of known distance are visible over at least half of the horizon. It is normally determined by an observer on or close to the ground viewing buildings or other similar objects during the day and ordinary city lights at night. Under low visibility conditions the observations are usually made at the control tower. Visibility is reported in miles and fractions of miles in the Aviation Weather Report. If a single value does not adequately describe the visibility, additional information is reported in the "Remarks" section of the report.

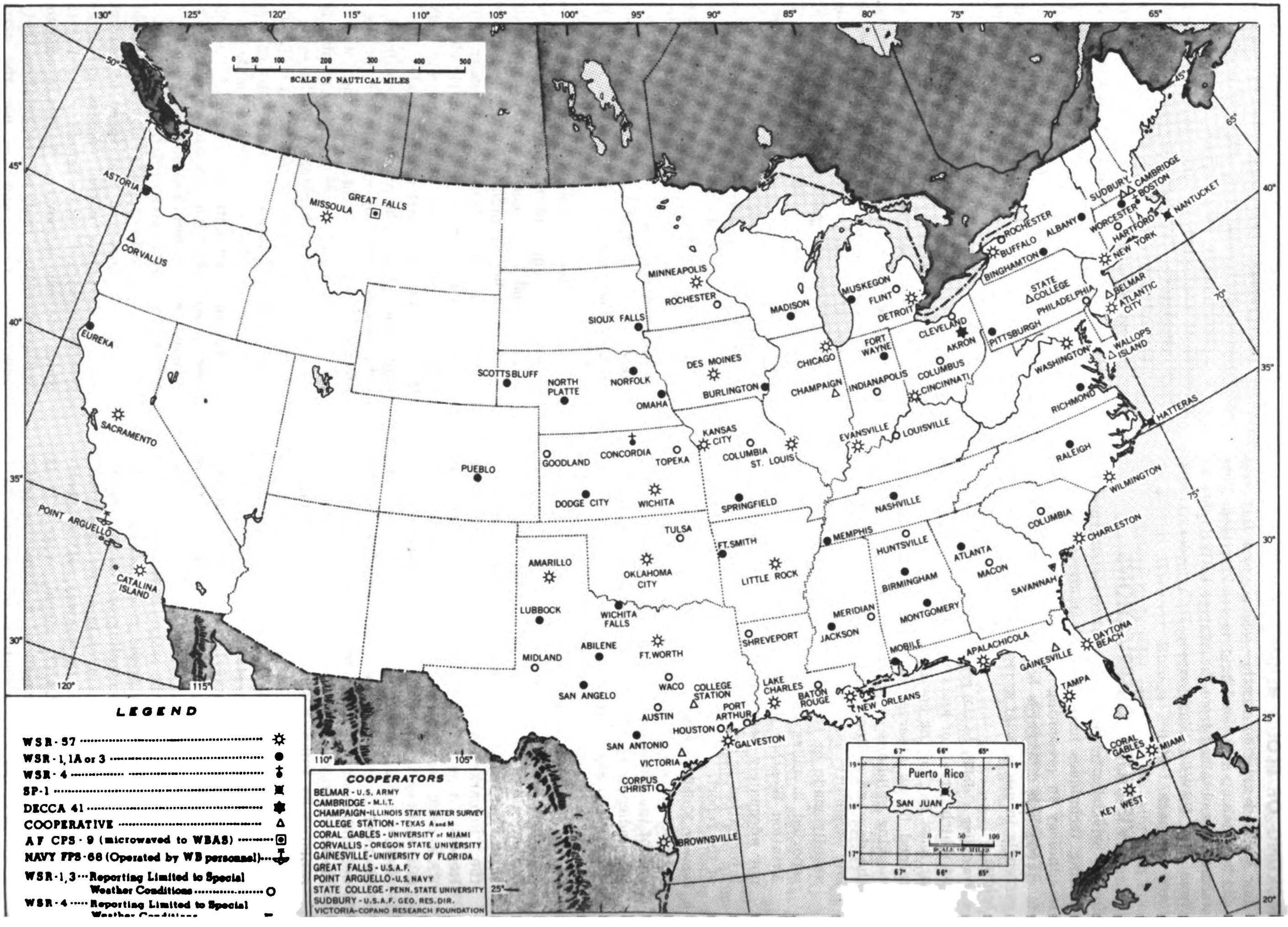
   b. **Runway Visibility (RVV)** is defined as the horizontal distance at which a stationary observer near the end of the runway can see an ordinary light (about 25 candlepower) at night or a dark object against the horizon sky in the day time. In practice the human observer is used very little for this observation. Instead runway visibility is normally determined by a transmissometer (a photoelectric device calibrated in terms of a human observer). It is reported in miles and fractions of miles in the "Remarks" section of the Aviation Weather Report. A meter in the control tower gives the FAA traffic controller a continuous indication of the runway visibility at transmissometer locations. Runway visibility, where available, may be used in place of prevailing visibility for the determination of minimums on the transmissometer runway. This program is gradually being replaced by Runway Visual Range at transmissometer locations.

   c. **Runway Visual Range** (RVR) is an instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end; it is based on the sighting of either high intensity runway lights or on the visual contrast of other targets—whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal, AND NOT SLANT, visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is reported in hundreds of feet. At the present time, RVR observations are automatically furnished to FAA tower controllers at approximately 40 locations from read-out equipment connected to the remote transmissometer installation. RVR provides an additional operating minimum at fields equipped with specified navigational aids. For example, at the present time the RVR minimum at Newark is 2000 feet (in combination with a minimum descent altitude of 218' MSL) for both takeoffs and landings regardless of the reported ceilings and visibility. Detailed explanatory information on runway visibility and runway visual range is published in FAA Advisory Circular AC 00-13.

WEATHER RADAR

1. The U.S. Weather Bureau operates a 97-station net work (see chart on page I-28) of weather radars which are operated continuously if any precipitation capable of being detected is present or expected. These stations are generally spaced in such a manner as to enable them to detect and identify the type (snow, rain) of most of the precipitation east of the Continental Divide.
2. If any weather is detected, a scheduled radar observation is taken at 45 minutes past each hour—more often if the characteristics (speed, intensity, etc.) of the detected echoes are changing rapidly, except as noted in the legend of the chart. These observations are transmitted to many Weather Bureau and FAA stations and are available for use in pre-flight and in-flight planning. In addition, an hourly plain language radar summary and a three-hourly radar summary facsimile chart are prepared by the Radar Analyses and Development Unit in Kansas City, Missouri. The hourly radar summary is transmitted on Service A teletypewriter to all Weather Bureau and Flight Service Stations, and the radar chart is available to all subscribers to the facsimile network.
3. Briefly, these observations are encoded in a self-evident code. The echo coverage (scattered, broken, etc.) is determined by a comparison of the relative amount of echo as compared to the total area outlined by the position groups. The number of tenths of coverage for each category is the same as those contained in Circular N for sky condition symbols (e.g., scattered means 1/10 to 5/10 coverage). Intensity of an echo is determined on the basis of returned signal strength and range of the echo. The more intense the echo, the more likely it is to be associated with severe weather. Location of salient points of echoes is given relative to the station. The azimuth is in degrees true, and the distance in nautical miles. Direction and speed of movement are given to 16 points of the compass and in knots, respectively, with direction referring the direction from which the echo is moving. Values of echo tops refer to the uppermost limit of precipitation that may be detected by radar and are not the actual tops

RADAR REPORTING NETWORK



WEATHER RADAR (Con't)

of visible clouds. "Hook" echoes are usually associated with tornadoes and "spiral bands" with hurricanes.

4. Many of the stations equipped with radar have a radar repeaterscope near the briefing display that is available for viewing. As a radar can provide a comprehensive area picture of the weather within its range, viewing this scope can help your flight planning. It can show the exact location and extent of storms and the briefer can give you the direction and speed of movement, as well as height and intensity of these echoes. Technical considerations prevent dependable determinations of echo intensity beyond 100 nautical miles although storms of considerable height and intensity can be seen at ranges greater than 100 nautical miles. In order to obtain optimum benefit from radar data, it is suggested that an interpretation of the radarscope be obtained from Weather Bureau personnel who are trained in radar operation and scope interpretation.

THUNDERSTORMS

1. Every thunderstorm has turbulence, sustained updrafts and downdrafts, precipitation and lightning. Icing conditions and hail can frequently be expected.
2. The chances of severe or extreme turbulence within thunderstorms are greater at higher altitudes. Most cases of severe turbulence are encountered between 8,000 and 15,000 feet above the terrain. Usually the least turbulence is found in flying at or just below the base of the main thunderstorm cloud.
3. The heaviest turbulence is found to be closely associated with the areas of highest liquid water content of the storm. This makes it possible for airborne radar to pick out areas of maximum turbulence.
4. The probability of lightning strikes occuring is greatest near or slightly above the freezing level.
5. Quite obviously, to avoid these hazards you avoid flying into the center of active thunderstorms. Some of these phenomena, however, exist beyond the confines of the cell itself and the pilot electing to circumnavigate thunderstorm activity should keep them in mind.
6. Turbulence, while not usually as severe as in the cell itself, can exist in the clear air around the buildup, as can rain and hail. Lightning can also strike an aircraft in the clear in the vicinity of a thunderstorm.

DETOURING THUNDERSTORMS

1. Whenever it becomes necessary for a pilot on an Instrument Flight Rules flight plan to deviate from his approved route or altitude/flight level, a problem immediately presents itself to the air traffic controller. The affected area must be studied and an attempt made to accommodate the aircraft for the proposed route of flight. Revision to estimates must be made and adjacent or converging airways or areas must be considered.
2. Therefore, it is important that the request for deviation from route be forwarded to Air Traffic Control as far in advance as possible. Delay in submitting the request, or inability to do so, may delay or even preclude ATC approval of the request, or require that additional restrictions be placed on the clearance.
3. A pilot on an Instrument Flight Rules flight plan must not deviate from route without proper clearance as this may place him in conflict with other air traffic. Strict adherence to traffic clearance is necessary to assure an adequate level of safety. In those instances where thunderstorm conditions encountered are of such severity that an immediate deviation from course is determined to be necessary and time will not permit approval by ATC, the pilot's emergency authority may be exercised.
4. Insofar as possible, the following information should be furnished to ATC when requesting clearance to detour around thunderstorm activity:
   a. Proposed point at which detour will commence.
   b. Proposed route and extent of detour (direction and distance)
   c. Altitude/s
   d. Point and estimated time where original route will be resumed.
   e. Flight conditions (IFR or VFR).
   f. Any further deviation that may become necessary as the flight progresses.
   g. Advise if the aircraft is equipped with functioning airborne radar.
5. When flying within the Continental Control Area, the proposed detour should be defined by appropriate navigational aids (however, not necessarily over or directly between such aids). When this is not possible and traffic exists at the desired altitude, ATC will be unable to approve the detour. In such cases, ATC may offer a clearance via the detour route at a different altitude. When an alternate altitude is not available, the pilot may elect to detour under his emergency authority.

KEY TO AVIATION WEATHER REPORTS

LOCATION IDENTIFIERS	SPECIAL REPORT	SKY AND CEILING	VISIBILITY WEATHER AND OBSTRUCTION TO VISION	SEA-LEVEL PRESSURE	TEMPERATURE AND DEW POINT	WIND	ALTIMETER SETTING	RUNWAY VISUAL RANGE	CODED PIREPS	REMARKS
MKC	S	15⊖M25⊕	4R-K	132	/58/56	/1807	/993/	VR32	/⊕55	RB05 ⊕V⊖

SKY AND CEILING

Sky cover symbols are in ascending order. Figures preceding symbols are heights in hundreds of feet above station.

Sky cover Symbols are:

○-Clear: Less than 0.1 sky cover.
⊖-Scattered: 0.1 to less than 0.6 sky cover.
⊜-Broken: 0.6 to 0.9 sky cover.
⊕-Overcast: More than 0.9 sky cover.
—-Thin (When prefixed to the above symbols.)
⊗-Partial Obscuration: 0.1 to less than 1.0 sky hidden by precipitation or obstruction to vision (bases at surface).
X-Obscuration: 1.0 sky hidden by precipitation or obstruction to vision (bases at surface).

Letter preceding height of layer identifies ceiling layer and indicates how ceiling height was obtained. Thus:

A Aircraft	E Estimated heights of convective clouds	/ Height of obscure ceiling layer unknown
B Balloon (Pilot or ceiling)	M Measured	"V" immediately following numerical value indicates a varying ceiling.
D Estimated height of obscure clouds on basis of pyrotechnics.	R Radiosonde balloon or Radar	
	W Indefinite	
	U Height of obscure ceiling layer unknown	

VISIBILITY

Reported in Statute Miles and Fractions. (V - Variable)

WEATHER SYMBOLS

A - Hail	L - Drizzle	SP - Snow Pellets
AP - Small Hail	R - Rain	SW - Snow Showers
E - Sleet	RW - Rain Showers	T - Thunderstorm
EW - Sleet Showers	S - Snow	ZL - Freezing Drizzle
IC - Ice Crystals	SG - Snow Grains	ZR - Freezing Rain

INTENSITIES are indicated thus:
-- Very Light — Light (no sign) Moderate + Heavy

OBSTRUCTION TO VISION SYMBOLS

D - Dust	H - Haze	BD - Blowing Dust
F - Fog	IF - Ice Fog	BN - Blowing Sand
GF - Ground Fog	K - Smoke	BS - Blowing Snow

WIND

Direction in tens of degrees from true north, speed in knots. 0000 indicates calm. G indicates gusty. Peak speed of gusts follows G or Q when equal is reported. The contraction SHIFT followed by local time group or remarks indicates wind shift and its time of occurrence.

EXAMPLES: 1877 180 Degrees, 77 Knots,
8127 810 Degrees, 77 Knots,
1077 100 Degrees, 77 Knots,
3577G49 350 Degrees, 77 Knots Peak speed in gusts 49 Knots

ALTIMETER SETTING

The first figure of the actual altimeter setting is always omitted from the report

RUNWAY VISUAL RANGE (RVR)

RVR is reported only from selected stations. The value reported is a 10-minute mean of the visual range in hundreds of feet.

CODED PIREPS

Pilot reports of clouds not available from ground are coded with height, height data preceding and or following sky cover symbol to indicate cloud bases and or tops, respectively

DECODED REPORT

Kansas City Special observation, 1200 feet measured clouds, measured ceiling 2500 feet overcast, visibility 4 miles, light rain, smoke, sea level pressure 1011 millibars, temperature 58°F, dewpoint 56°F, wind 180°, 7 knots, altimeter setting 29.93 inches, Runway Visual Range 1200 feet, pilot reports top of overcast 5500 - rain began 5 minutes past the hour, overcast variable broken.

+S indicates that report contains important change

SAFETY OF FLIGHT

WAKE TURBULENCE

1. For years turbulence generated by aircraft was attributed to "prop wash." Pilots, in making maneuvers such as steep 360° and 720° turns, would occasionally get caught in their own "prop wash." The "prop wash" behind other aircraft caused some pretty rough rides, "go-arounds", and accidents. With the advent of the large jet transport and helicopters, the so-called "prop wash" problems enlarged to include "jet wash" and helicopter "down wash" turbulence. By this time, however, the problems associated with aircraft wake turbulence had been broken down into two categories—"thrust stream turbulence" and "wing tip vortices."

2. What was once thought to be prop wash was in fact vortex turbulence. "Prop/jet wash," i.e., thrust stream turbulence, can be a hazard to aircraft operating on the ground and pilots should take normal precautions to avoid taxiing close behind larger aircraft making an engine runup or running up when other smaller aircraft are close behind them, as the case may be. At distances of 400–500 feet "prop" or "jet wash" normally will not constitute a serious hazard to other aircraft operating on the ground. Also, it should not be a hazard to aircraft in flight except possibly in the case of a take-off or landing in the immediate area of an aircraft making a ground runup. "Jet wash" velocity patterns will, of course, vary in shape and velocities with different aircraft and power settings, and will change when subjected to surface winds of differing relative directions and velocities.

3. VORTICES

A vortex core is the center of a trailing mass of disturbed air created by the wing of an aircraft as it produces lift. An aircraft creates two such vortices with rotational air movement. As a lift-producing air foil passes through the air it leaves a continuous sheet of unstable air behind the trailing edge. Due to spillage about the wing tips, the air rolls into two distinct vortices, one trailing behind each wing tip. The roll up process is normally complete at a distance equal to about two to four times the wing or rotor span of the aircraft. Thus, formation of vortices behind present commercial jet transport aircraft would be essentially complete at distances of approximately 200 to 600 feet, and, if visible would appear as shown in Figure 1. Vortices generated by the rotors of a helicopter are shed and trail along the

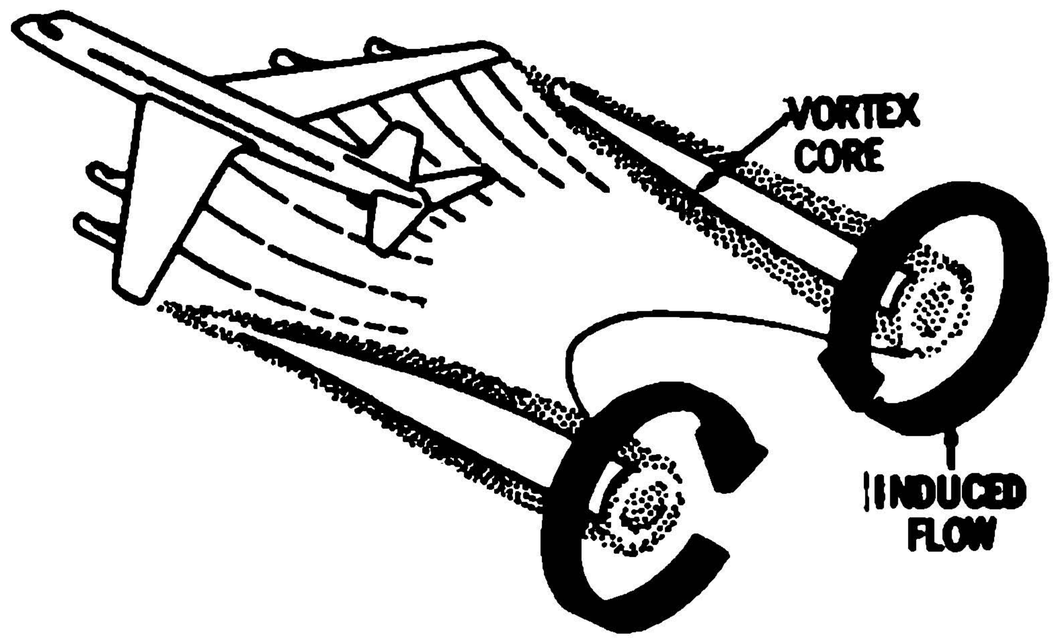


FIGURE 1. Trailing Vortex Sheet and Cores.

track behind the aircraft in the same manner as those generated by a fixed wing aircraft. These vortices have the same internal air circulation as those generated by fixed wing aircraft and have the same effect upon other aircraft.

4. VORTEX INTENSITY

When an air foil passes through a mass of air and creates lift, energy proportional to the weight being lifted is transmitted to the mass of air. Generally, the greater the lift, the greater the energy transmitted to the air mass in the form of turbulence. The turbulence is directly related to the weight, wing span and speed of the aircraft. Its intensity is directly proportional to the weight and inversely proportional to the wing span and speed of the aircraft. The heavier and slower the aircraft, the greater the intensity of the air circulation in the vortex cores. Thus, it can be seen that modern large transport aircraft will create vortices having maximum rotational velocities during take-off and landing at or near maximum gross weights.

5. VORTEX PERSISTENCY

There is no current practical knowledge that can be used as a yardstick to accurately measure the period of time vortices will be a hazard to other aircraft. Studies have been conducted and measurements made of the size of vortices and velocity of the air within them up to nearly three minutes after passage of large aircraft. Pilots have reported what they believed to be vortex turbulence five minutes and more after passage of another aircraft. No practical rule

WAKE TURBULENCE (Con't)

involving a time interval for one aircraft behind another will assure avoidance of the vortices generated by the first. However, other methods of avoiding the hazards associated with aircraft vortices are known and can be applied by pilots.

6. VORTEX DANGERS

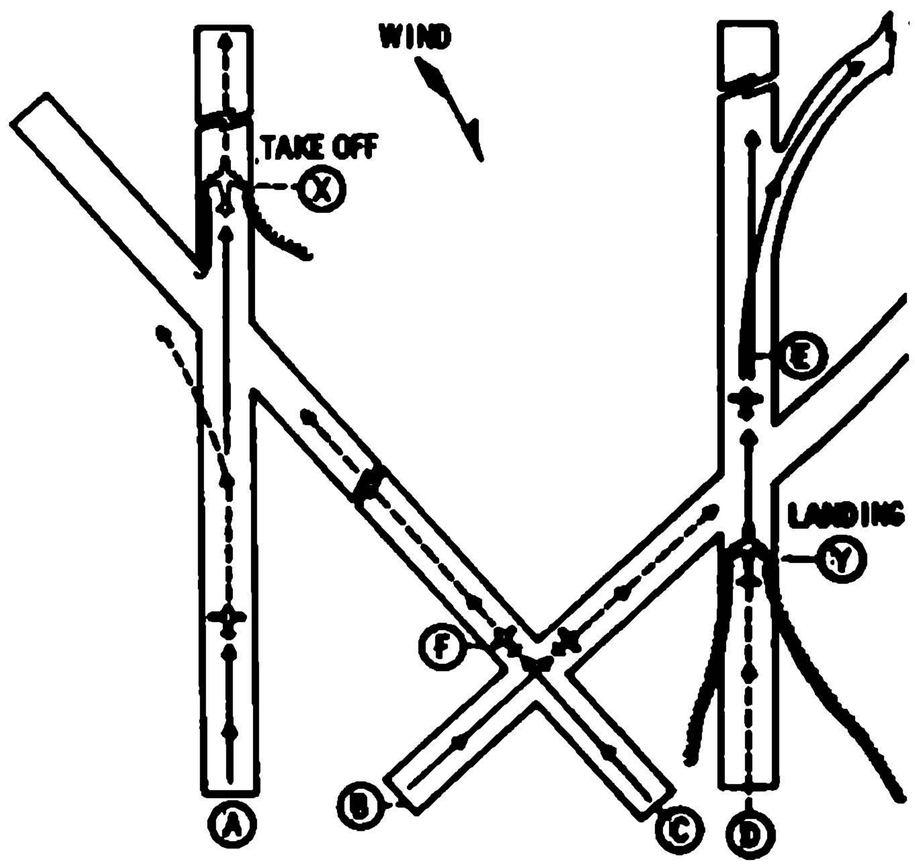
"Why should I avoid flying in or through the vortex turbulence behind large aircraft?" is a question that a pilot might ask if accustomed only to the turbulence created by light single and twin engine aircraft. Perhaps the best answer, and the most impressive one is that the aerodynamic forces applied upon the light aircraft by the circulation of air in the vortices and the pilot's attempt to counteract it could result in the airframe design limits being exceeded and possibly structural failure. And then there is the pilot who has always been able to control his aircraft through any "prop wash" he has encountered. His excellent ability may mean nothing because the forces he encounters behind a heavily loaded large aircraft could exceed the control capability of his aircraft. A roll, descent, or combination of the two could continue even though full control travel or power is applied. The forces of the air in wing tip vortices can well exceed the aileron control capability or the climb rate of some aircraft. For those who want figures, the air in a vortex core can produce a roll rate of about 80 degrees per second which is about twice the roll rate capability of some light aircraft when using full aileron deflection. If the light aircraft stayed directly between the center of the vortex cores from a heavy jet transport it could encounter a downward flow of air of about 1,500 feet per minute. A light aircraft with a continued climb capability of 1,000 to 1,200 feet per minute could go only in one direction—*down*. Caught in such a position the pilot who altered his course could get caught by the roll forces or a combination of downward and roll forces. These forces have been sufficient to cause aircraft to do one or more complete rolls, to force them into the ground and in some instances a combination of the two actions.

7. VORTEX LOCATION

The best way of avoiding the vortices hazards is to know where they are most likely to be encountered and act accordingly. Since vortices are not formed until lift is produced they will not be generated by an aircraft taking off until just before lift off—at the point where rotation is made. Vortices cease to be generated by a landing aircraft when its wing ceases to produce lift—when it has actually landed. However, remember that a large aircraft could have taken off and be out of sight, or landed and be on the ramp and the vortices turbulence could still be present near the runway. Another factor to remember is the vertical and lateral movements of vortices. Vortices generated more than 400 or 500 feet above the surface will drop nearly vertically in a no-wind condition until reaching a height equal to approximately one-half the wing span of the generating aircraft. At that point they start to curve outward and spread laterally away from the track of the aircraf There is one other thing that must be remembere that is—both the vertical and lateral movement the vortex cores, will be affected by and move wit the encompassing air mass. A cross wind will di place the vortices from the vertical in their dow ward travel and affect the lateral rate of trave A cross wind component of approximately four six knots, depending upon the lateral rate of vorte travel, is sufficient to cause one core to remain late ally stationary over a line on the surface while t opposite core will travel at its own lateral rate pl that of the effective cross wind.

8. SUGGESTED PILOT ACTION

Unfortunately, the best advice is not always the mo practical. In the case of vortex turbulence hazar avoidance, to insure 100% success would requi pilots, particularly those flying relatively small



→ — → — FLIGHT PATH
→ — → — GROUND PATH

Large Aircraft	*Small Aircraft* *Take-off**	*Small Aircraft* *Landing**
TAKE-OFF at X	B, D, C, A	D, C, B, A
LAND at Y	A, C, E, B	A, B, E, F

*Take-off and landing points listed in order of proba preference with regard to turbulence from take-off a landing of large aircraft.

FIGURE 2. Example Take-off/Landing Alternative courses of action.

WAKE TURBULENCE (Con't)

aircraft, to refrain from operating in areas where the very large and heavy aircraft regularly operate. It would produce the desired result but would not be practical. What can you as a pilot do?

a. General Rule. When it is necessary to operate behind a large heavy aircraft try to remain above the flight path of that aircraft. Remember that vortices settle toward the surface and also that they are affected by the wind and move with the air mass down to within one hundred or so feet from the ground before spreading laterally away from each other and that the wind will continue to effect the vortex cores until dissipation occurs. Because of the infiinite number of different circumstances that can exist, it is not practical to establish a set of inflexible rules. Therefore, we have outlined several possible courses of action and included their depiction in preceding Figure 2, which, depending upon existing conditions, pilots may wish to consider.

b. Take-off/Take-off.

(1) *Same or parallel runway.* Start the take-off roll at the end of the runway so that your take-off will be before the point where the previous aircraft's take-off was made. Make a normal performance take-off and climb and you should be behind and above the settling vortices of the preceding aircraft. If possible, make a turn away from the runway heading and if there is any cross wind make that turn into the wind. Don't depend upon the wind to dissipate the vortex core circulation appreciably unless it is 10–15 knots or higher and even then it could take several minutes. Also, remember that the lateral movement of vortices, even in a no wind condition, may place a vortex core over a parallel runway. With a light cross wind one vortex can remain stationary over the ground for some time or even move upwind before dissipating to any significant degree.

(2) *Intersecting runways.* If the large aircraft was still on the ground until well past the intersection and your take-off will permit climb to approximately 100 feet or more before you pass the intersection you should not encountered either the vortices or any appreciable thrust stream turbulence. Remember the general rule and make certain that you cross above the flight path of larger aircraft. Also remember that the larger aircraft will probably have a high gross weight at take-off and thus will generate vortices of maximum intensity. Also, consider the lateral movement of vortices and the possible effect the wind wil lhave upon the movement.

c. Take-off/Landing.

(1) *Same or parallel runway.* When taking off after another aircraft has just landed, keep it on the ground until past the point where the other aircraft landed. Remember, while starting take-off from an intersection may keep you out of the vortices of an aircraft that has just landed, it could place you in the vortices shed by one that took off several minutes before on the same or a parallel runway.

(2) *Intersecting runways.* The precautions to heed when taking off after another aircraft has just landed on an intersecting runway are the same as those for a single or parallel runway. But don't forget the "heavy" that may have taken off from either your runway or the other one within the past several minutes.

d. Traffic Pattern. Don't fly below and behind a large aircraft in the traffic pattern. If practicable, plan your pattern to stay laterally separated from large aircraft by at least several hundred feet. When on the final approach, an above and behind position should keep you clear of the turbulence created by the preceding aircraft.

e. Landing/Landing. From the above and behind position on a final approach, the light aircraft pilot is in a good position to touch down beyond the point where a preceding large aircraft landed. If you are using ILS, remain on or slightly above the glide slope. If the runway has a visual approach slope indicator (VASI) system, a flight path in the "red and white" or with the top bar appearing a bit pink will keep you on or slightly above a normal glide slope and put you in a good position to touch down beyond the point where the previous aircraft was on the runway. A complete description of the VASI system which appears on page I-16.

f. Landing/Take-off. When landing after the take-off of a large aircraft, make a normal landing near the approach end of the runway and be solidly on the ground before reaching the point where the large aircraft took off. Although vortices from the departing aircraft will not be formed until the point of rotation, remember that the wind can cause the turbulence to move down the runway toward you.

9. SUMMARY

Thrust stream turbulence (prop/jet wash) should not be a hazard to aircraft in the air except in one possible instance. Take normal precautions when landing if a large aircraft is making a run-up near the approach end of the runway. Avoid flying close behind and below large aircraft—remain at least level or slightly above and, when practicable, laterally separated from the flight path of the large ones.

WAKE TURBULENCE (Con't)

When landing behind a big one that has just touched down—stay high and touch down beyond the point where he landed—if the length of the runway will permit. When landing behind a departing "heavy"—land before reaching the take-off point of the large aircraft. When making a take-off behind a large aircraft that has just departed—make it normal with a normal climb and stay above or deviate from the flight path of the other aircraft. Avoid an intersection take-off on the same runway behind a "heavy"—take-off from the approach end of the runway. Also, avoid taking off from a runway that crosses another from which a large aircraft has just taken off unless you can be well in the air at the intersection and the large aircraft was still on the runway at that point. When the tower controller advises you "caution wake turbulence," etc., he is merely warning you that it may exist because of an aircraft that has recently made a take-off or landing. When you receive such an advisory, don't hesitate to request further information that you believe will assist in analyzing the situation and determining the course of action you wish to take. Remember, even though a clearance for take-off or landing has been issued, it is only an authorization and the pilot may choose to wait, ask to use a different runway or in some other way delay his intended operation. Sometimes ,air traffic clearances include use of the word "immediately." For example, "CLEARED FOR IMMEDIATE TAKE-OFF." In such cases, the word is used for purposes of air traffic separation. The clearance may be refused if the pilot believes an alternate course of action would be better suited to his intended operation. The controller's primary job is to aid in the prevention of collisions between aircraft however, he will assist the pilot in any way he can while accomplishing his job.

NEAR MIDAIR COLLISION REPORTING

1. The agency is vitally interested in all near midai collision incidents. Each reported incident is thoroughly investigated by the Agency as soon as receive in accordance with the established procedures. I order to ensure expeditious handling, all airmen ai urged to report each incident immediately to.
   a. Nearest FAA Air Traffic Control facility or Fligl Service Station by radio.
   b. Telephone report at next point of landing to nea est FAA Air Traffic Control facility or Fligi Service Station.
   c. Written in lieu of a and b above to the nearest A Carrier District Office or General Aviation Distri Office.
2. The following information should be reported if ava able:
   a. Date and time (GMT) of incident.
   b. Location of incident and altitude.
   c. Identification and type of reporting aircraft; a crew destination; name and home base of pil
   d. Identification and type of other aircraft; aircre destination; name and home base of pilot.
   e. Type of flight plans; station altimeter setting use
   f. Detailed weather conditions at flight altitud level.
   g. Approximate courses of both aircraft; indicate one or both aircraft were climbing/descendir
   h. Reported separation in distance at first sightin proximity at closest point horizontally and ver cally; length of time in sight prior to evasi action.
   i. Degree of evasive action taken, if any (from bo aircraft, if possible); injuries, if any.
3. Any inquiry pertaining to the incident should be ma to the FAA General Aviation District Office where the incident occurred.

MEDICAL FACTS FOR PILOTS

GENERAL

Just as your aircraft is required to undergo regular hecks and maintenance, you are also required to under- o regular medical examinations to ensure your fitness to y. The physical standards you are required to meet re minimum standards. You do not have to be a super- an to fly. Many defects can be compensated for, as, r example, wearing glasses for visual defects. You ay be required to demonstrate by a medical flight test at you can compensate for any other defects of poten- al significance to flight safety.

Student pilots should visit a Designated Aviation fedical Examiner and determine if they meet the stand- rds before spending much money taking flying instruc- ions.

It should be recalled that humans are essentially arthbound creatures. However if we are aware of rtain aeromedical factors, and pay attention to these, e can leave the earth and fly safely. What follows ill not be one hard comprehensive lesson in aviation edicine. It will point out the more important factors ith which you should be familiar prior to flying.

Modern industry's record in providing reliable equip- ent is very good. When the pilot enters the aircraft, e becomes an integral part of the man-machine system. le is just as essential to a successful flight as the con- ol surfaces. To ignore the pilot in preflight planning ould be as senseless as failing to inspect the integrity the control surfaces or any other vital part of the achine. The pilot himself has the sole responsibility r determining his reliability prior to entering the ckpit for flight.

While piloting an aircraft, an individual should be ee of conditions which are harmful to alertness, ability make correct decisions, and rapid reaction times. Per- ns with conditions which are apt to produce sudden capacitation, such as epilepsy, serious heart trouble, ncontrolled diabetes mellitus or diabetes mellitus re- iring hypoglycemic agents, and certain other conditions azardous to flight, cannot be medically certified ac- rding to the Federal Aviation Regulations. Conditions ch as acute infections, anemias, and peptic ulcers, are mporarily disqualifying. Consult your Aviation Med- al Examiner when in doubt about any aspect of your alth status, just as you would consult a licensed viation mechanic when in doubt about the engine status. pecific aeromedical factors are herein explained. For dditional information on these or other aeromedical flight factors, write to : The Federal Air Surgeon, Federal Aviation Agency, Washington, D.C. 20553.

FATIGUE

Fatigue generally slows reaction times and causes foolish errors due to inattention. In addition to the most common cause of fatigue, insufficient rest and loss of sleep, the pressures of buiness, financial worries and family problems, can be important contributing factors. If your fatigue is marked prior to a given flight, don't fly. To prevent fatigue effects during long flights, keep active with respect to making ground checks, radio-navigation position plotting, and remaining mentally active.

HYPOXIA

Hypoxia in simple terms is a lack of sufficient oxygen to keep the brain and other body tissues functioning properly. Wide individual variation occurs with respect to susceptibility to hypoxia. In addition to progressively insufficient oxygen at higher altitudes, anything interfering with the blood's ability to carry oxygen can contribute to hypoxia (anemias, carbon monoxide, and certain drugs). Also, alcohol and various drugs decrease the brain's tolerance to hypoxia.

Your body has no built in alarm system to let you know when you are not getting enough oxygen. It is impossible to predict when or where hypoxia will occur during a given flight, or how it will manifest itself.

A major early symptom of hypoxia is an increased sense of well-being (referred to as euphoria). This progresses to slow reactions, impaired thinking ability, unusual fatigue, and dull headache feeling.

The symptoms are slow but progressive, insidious in onset, and are most marked at altitudes starting above ten thousand feet. Night vision, however, can be impaired starting at altitudes lower than ten thousand feet. Heavy smokers may also experience early symptoms of hypoxia at altitudes lower than is so with non-smokers.

If you observe the general rule of not flying above ten thousand feet without supplemental oxygen, you will not get into trouble.

ALCOHOL

Do not fly while under the influence of alcohol. An excellent rule is to allow twenty-four hours between the last drink and takeoff time. Even small amounts of alcohol in the system can adversely affect judgement and decision-making abilities.

ALCOHOL (Con't)

Remember that your body metabolizes alcohol at a fixed rate, and no amount of coffee or medication will alter this rate.

By all means, do not fly with a hangover, or a "masked hangover" (symptoms suppressed by aspirin or other medication).

DRUGS

Self-medication or taking medicine in any form when you are flying can be extremely hazardous. Even simple home or over-the-counter remedies and drugs such as aspirin, antihistamines, cold tablets, cough mixtures laxatives, tranquilizers and appetite suppressors, may seriously impair the judgment and coordination needed while flying. The safest rule is to take no medicine while flying, except on the advice of your Aviation Medical Examiner. It should also be remembered that the condition for which the drug is required, may of itself be very hazardous to flying, even when the symptoms are suppressed by the drug.

Certain specific drugs which have been associated with aircraft accidents in the recent past are: *Antihistamines* (widely prescribed for hay fever and other allergies); *Tranquillizers* (prescribed for nervous conditions, hypertension, and other conditions); *Reducing Drugs* (amphetamines and other appetite suppressing drugs can produce sensations of well-being which have an adverse affect on judgement); *Barbiturates, Nerve tonics or pills* (prescribed for digestive and other disorders, barbiturates produce a marked suppression on mental alertness).

VERTIGO

The word itself is hard to define. To earthbound individuals it usually means dizziness or swimming of the head. To a pilot it means, in simple terms, that he doesn't know which end is up. In fact, vertigo during flight can have very fatal consequences.

On the ground we know which way is up by the combined use of three senses:

1. **Vision**—We can *see* where we are in relation to fixed objects.
2. **Pressure**—Gravitational pull on muscles and joints tells us which way is down.
3. **Special Parts In Our Inner Ear**—The otoliths tells us which way is down by gravitational pull. It should be noted that accelerations of the body are detected by the fluid in the semi-circular canals of the inner ear, and this tells us when we change position. However, in the absence of a visual reference, such as flying into a cloud or overcast, the accelerations can be confusing, especially since their forces can be misinterpreted as gravitational pulls on the muscles and otoliths. The result is often disorientation and vertigo (or dizziness).

All pilots should have an instructor pilot produce maneuvers which will produce the sensation of vertigo. Once experienced, later unanticipated incidents of vertigo can be overcome. Closing the eyes for a second or two may help, as will watching the flight instrumer believing them, and controlling the airplane in acco ance with the information presented on the instrumer All pilots should obtain the minimum training rec mended by the FAA for attitude control of aircr solely by reference to the gyroscopic instruments.

Pilots are susceptible to experiencing vertigo at ni and in any flight condition when outside visibility reduced to the point that the horizon is obscured. additional type of vertigo is known as *flicker vert* Light, flickering at certain frequencies, from four twenty times per second, can produce unpleasant dangerous reactions in some persons. These reacti may include nausea, dizziness, unconsciousness, or e reactions similar to an epileptic fit. In a single en propeller airplane, heading into the sun, the prope may cut the sun to give this flashing effect, particul during landings when the engine is throttled back. Tl undesirable effects may be avoided by not staring rectly through the prop for more than a moment, by making frequent but small changes in RPM. flickering light traversing helicopter blades has known to cause this difficulty, as has the bounce-l from rotating beacons on aircraft which have penetr clouds. If the beacon is bothersome, shut it off dui these periods.

CARBON MONOXIDE

Carbon monoxide is a colorless, odorless, taste product of an internal combustion engine and is alw present in exhaust fumes. Even minute quantities carbon monoxide breathed over a long period of t may lead to dire consequences.

For biochemical reasons, carbon monoxide ha greater ability to combine with the hemoglobin of blood than oxygen. Furthermore, once carbon mono is absorbed in the blood, it sticks "like glue" to hemoglobin and actually prevents the oxygen from taching to the hemoglobin.

Most heaters in light aircraft work by air flo over the manifold. So if you have to use the heate wary if you smell exhaust fumes. The onset of s toms is insidious, with "blurred thinking", a pos feeling of uneasiness, and subsequent dizziness. I headache occurs. Immediately shut off the heater, the air ventilators, descend to lower altitudes, and at the nearest airfield. Consult an Aviation Me Examiner. It may take several days to fully rec and clear the body of the carbon monoxide.

VISION

On the ground, reduced or impaired vision can s times be dangerous depending on where you are and you are doing. In flying it is always dangerous.

On the ground or in the air, a number of factors as hypoxia, carbon monoxide, alcohol, drugs, fatigu even bright sunlight can affect your vision. In the these effects are critical.

Some good specific rules are: make use of sungl on bright days to avoid eye fatague; during night fl use red covers on the flashlights to avoid destroying

VISION (Con't)

lark adaptation; remember that drugs, alcohol, heavy smoking and the other factors mentioned above, have early effects on visual acuity.

MIDDLE EAR DISCOMFORT OR PAIN

Certain persons (whether pilots or passengers) have difficulty balancing the air loads on the ear drum while descending. This is particularly troublesome if a head cold or throat inflammation keeps the eustacian tube from opening properly. If this trouble occurs during descent, try swallowing, yawning, or holding the nose and mouth shut and forcibly exhaling. If no relief occurs, climb back up a few thousand feet to relieve the pressure on the outer drum. Then descend again, using these measures. A more gradual descent may be tried, and it may be necessary to go through several climbs and descents to "stair step" down. If a nasal inhaler is available, it may afford relief. If trouble persists several hours after landing, consult your Aviation Medical Examiner.

NOTE.—If you find yourself airborne with a head cold, you may possibly avoid trouble by using an inhaler kept as part of the flight kit.

PANIC

The development of panic in inexperienced pilots is a process which can get into a vicious circle with itself and lead to unwise and precipitous actions. If lost, or in some other predicament, forcibly take stock of yourself, and do not allow panic to mushroom. Panic can be controlled. Remember, *Prevent Panic to Think Straight.* Fear is a normal protective reaction, and occurs in normal individuals. Fear progression to panic is an abnormal development.

SCUBA DIVING

You may use your plane to fly to a sea resort or lake for a day's SCUBA diving, and then fly home, all within a few hours' time. This can be dangerous, particularly if you have been diving to depths for any length of time.

Under the increased pressure of the water, excess nitrogen is absorbed into your system. If sufficient time has not elapsed prior to takeoff for your system to rid itself of this excess gas, you may experience the bends at altitudes under 10,000 feet where most light planes fly.

AERONAUTICAL PUBLICATIONS

A list of publications of general operational interest to pilots is provided for your convenience. All are available from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, except those indicated by asterisks, which can be procured from the Director, U.S. Coast and Geodetic Survey, Washington, D.C.

Airline Transport Pilot (Airplane) Examination Guide (35¢)

Airline Transport Pilot (Helicopter) Written Examination Guide 1962 (30¢)

Airplane Flight Instructor Examination Guide 1962 (40¢)

Alaskan Airman's Guide and Chart Supplement (No charge to pilots operating in Alaska)

All Weather Flight Manual 1957 ($3.50) Revised pages 1961 ($1.75)

Basic Glider Criteria Handbook 1962 (75¢)

Commercial Pilot Examination Guide 1962 (65¢)

Commercial Pilot—Airplane, Single-Engine (15¢)

Facts of Flight 1963 (50¢)

**Flight Information Publication (FLIP) Planning, Sections I & II—USAF/USN* ($10.55)

**Flight Information Publication (FLIP) Planning, Section I-A—Low Altitude High Speed Training Route Chart—USAF/USN* ($6.50)

**Flight Information Publication (FLIP) Planning, Section III, International Rules and Procedures—USAF/USN* ($3.95)

Flight Test Guides (15¢)

Glider—Private and Commercial Pilot (15¢)

Gyroplane—Private Pilot (15¢)

Gyroplane—Commercial Pilot (15¢)

Glossary of Air Traffic Control Terms (Free)

Helicopter—Private and Commercial Pilot (15¢)

Instrument Flight Instructor Examination Guide 1 (35¢)

Instrument Pilot Examination Guide 1961 (30¢)

Instrument Pilot—Airplane (15¢)

International Flight Information Manual ($1.00)

International NOTAMS ($3.00 Domestic) ($5.00 F eign)

Pacific Airman's Guide and Chart Supplement (charge to pilots operating in the Pacific ar

Path of Flight 1963 (70¢)

Pilots Radio Handbook 1962 (75¢)

Plane Sense (Free)

Private Pilot—Airplane, Single-Engine (15¢)

Private Pilot (Airplane) Flight Training Guide 1 ($1.00)

Private Pilot's Handbook of Aeronautical Knowle 1963 ($2.50)

Realm of Flight 1963 (75¢)

Rules of Flight 1962 (55¢)

Terrain Flying 1960 (40¢)

Various Rules, Regulations, Orders, Technical St ard Orders (TSO), and Notices

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION II

ATC OPERATIONS AND PROCEDURES

DECEMBER 1964

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INTRODUCTION

Section II—ATC OPERATIONS AND PROCEDURES

Section II, ATC Operations and Procedures, is designed to serve as an official means of disseminating pertinent air traffic control information of interest to pilots of varied experience levels. The material is presented in layman's language to lessen the ambiguity which sometimes results from individual interpretation of rules, regulations and proceedings.

The information published, governing flight operations, air traffic services and procedures with the conterminous United States is arranged and sequenced in accordance with that of a typical flight operation; i.e., preflight, departure, enroute, arrival and landing.

Supplemental to the sequenced flight operations, are supporting general and emergency information and procedures such as U.S. Entry and Departure Requirements, Air Defense Identification Zone (ADIZ) and SCATER procedures.

The Section concludes with Emergency Procedures. These procedures have been consolidated and placed last in the Section for quick and ready reference.

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PREFLIGHT

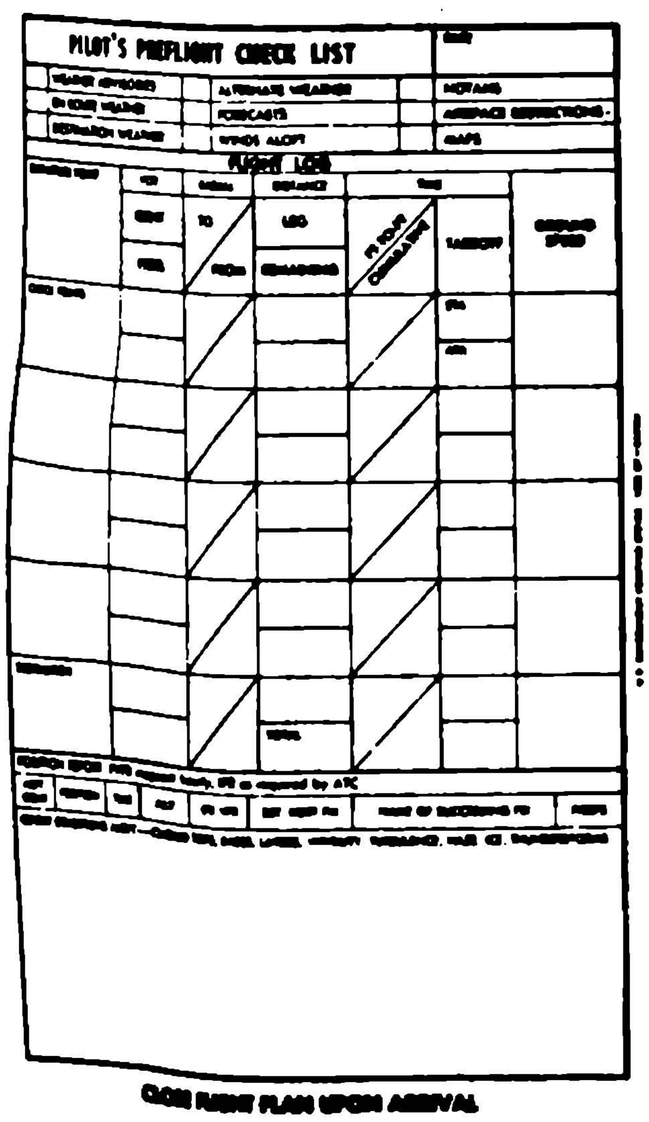
GENERAL

1. Every pilot is urged to receive a preflight briefing and to file a flight plan. This briefing would consist of weather, airport, and enroute navaid information. Briefing service may be obtained from a flight service station either by telephone/interphone, by radio when airborne, or by a personal visit to the Station.

WEATHER BRIEFING

1. Consult your local FAA Flight Service Station (FSS) or Weather Bureau Airport Station (WBAS) for preflight weather briefings.

2. When telephoning for information, use the following procedure:
   a. Identify yourself as a pilot. (Many persons calling WB stations want information for purposes other than flying.)
   b. State your intended route, destination, proposed departure time and estimated time en route.
   c. Advise if you intend to fly only VFR.
   d. When talking to an FSS, you will be asked your aircraft identification for activity record purposes.



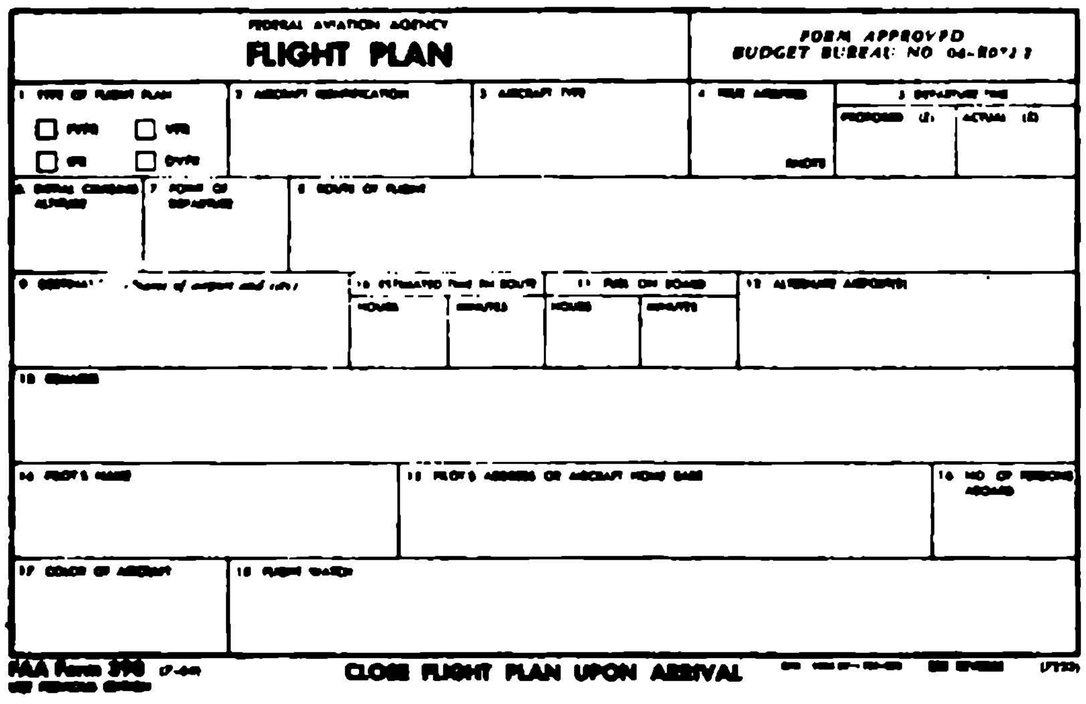
3. You are urged to use the Pilot's Preflight Check List which is on the reverse of the Flight Plan Form. The Check List is a reminder of items you should be aware of before beginning flight. Also provided beneath the Check List is a Flight Log for your use if desired.

FLIGHT PLAN—VFR

1. GENERAL

a. A flight plan is not required for VFR flight, however, it is strongly recommended that one be filed. This not only assures prompt search and rescue action in event you become overdue or missing, but it also permits en route stations and the destination station to render better service by having prior knowledge of your flight. All VFR flights, whether on a flight plan or not, should make regular position reports to FAA Flight Service Stations to receive altimeter settings and weather safety advisories.

b. Flight plan forms are available at all Flight Service Stations. A flight plan may be filed with the nearest Flight Service Station or airport traffic control tower, either in person or by telephone. Aircraft radio may be used to file if no other means are available. Some states operate aeronautical communications stations and most of these will accept flight plans which are then sent to FAA for further handling.



NOTE.—Although FAR 91.83 does not require the information in item 17 for domestic flight, nor that in item 18 for any flight, pilots are urged to furnish this information to assist search and rescue if SAR action is required.

FLIGHT PLAN—VFR (Con't)

2. DVFR (DEFENSE VFR FLIGHT PLAN)

Detailed ADIZ procedures are found under GENERAL, page II-O

3. COMPOSITE FLIGHT PLAN (VFR & IFR)

a. Flight plans which specify VFR operation for one portion of a flight, and IFR for another portion, will be accepted at the point of departure. If VFR flight is proposed for the first portion of the flight, the pilot should request IFR clearance from (1) the FSS nearest the location at which change from VFR to IFR is proposed; or if unable to contact the FSS, (2) any air traffic control facility. In either case, if a *VFR flight plan* was filed for the first portion of flight the pilot is responsible for notifying the FSS or air traffic control facility contacted to "CLOSE VFR FLIGHT PLAN." The pilot must remain in VFR weather conditions until operating in accordance with the IFR clearance.

b. When a flight plan indicates IFR for the first portion of flight and VFR for the latter portion, the pilot will normally be cleared to the point at which the change is proposed. Once the pilot has reported over the clearance limit and does not desire further IFR clearance, he should advise Air Traffic Control to cancel the IFR portion of his flight plan. Further clearance will not be necessary for VFR flight beyond that point. If the pilot desires to continue his IFR flight plan beyond the clearance limit, he should contact Air Traffic Control at least five minutes prior to the clearance limit and request further IFR clearance. If the requested clearance is not received prior to reaching the clearance limit fix, the pilot will be expected to establish himself in a standard holding pattern on the radial/course to the fix.

4. CLOSING (F.A.R.,PART 91.83(a))

a. VFR, FVFR, and DVFR flight plans must be closed (canceled), or an arrival report filed, within 30 minutes (15 minutes for jets) after the estimated time of arrival. To do this, merely notify the nearest Flight Service Station or air traffic control facility by radio or telephone. If a report is not received within this time, a communications search will be conducted by the FAA facilities along your route. If this search fails to locate your aircraft, a Rescue Coordination Center will be advised and an extensive, costly physical search for your aircraft will be initiated.

FLIGHT PLAN—IFR

1. GENERAL

a. Prior to departure from within, or prior to entering a control area or control zone, a pilot must submit a complete flight plan and receive an air traffic clearance. Instrument flight plans may be submitted to the nearest Flight Service Station or airport traffic control tower either in person or b telephone (or by radio if no other means are avai able). Pilots should file IFR flight plans at leas 30 minutes prior to estimated time of departur to preclude possible delay in receiving a departur clearance from ATC.

b. When filing a domestic IFR flight plan for flig in an aircraft equipped with a radar beacon tran ponder, DME equipment, or a combination of bot the pilot shall identify equipment capability b adding a suffix to the identification preceded b a slant, as follows:

AI2346/X (Transponder, no code)
V23457/T (Transponder, with code)
NI256/D (DME)
R39857/L (DME and transponder, no code)
AA409/B (DME and transponder with cod

NOTE.—The suffix is not to be transmitted by radio part of the aircraft identification.

2. AIRWAYS/JET ROUTES

a. It is vitally important that the route of flight b accurately determined and described in the flig plan to permit accurate plotting and planning b air traffic control. The issuance of air traffic co trol clearances governing IFR flight within co trolled airspace will be predicated on pilot co formance with applicable Federal Aviation Reg lations and adherence to route procedures. T simplify definition of route and to facilitate a traffic control, pilots are requested to file flig plans via VOR Airways or Jet Routes establish for use at the altitude/flight level planned.

(1) If flight is to be conducted via the designat airways or jet routes, the route may described by indicating the type and numb of the airway(s) or jet route(s) requeste Federal airways or jet routes, whichever appropriate, which cross or merge for sho distances with the airway or jet route request should not be indicated.

Example 1:
7000 MSP PRESCOTT V97 LAKEWOC ORD

Spelled Out: Requesting 7000 feet fr Minneapolis St. Paul Interation via Prescott Intersection, Victor to Lakewood Intersection, direct C cago O'Hare International.

Example 2:
FL 250 MSP J30 J16 ORD

Spelled Out: Requesting Flight Level 2 Minneapolis St. Paul Internation Jet Route 30, Jet Route 16, to Chic go O'Hare International.

(2) The route of flight may also be described b naming the reporting points over which t flight will pass, provided the points named a

FLIGHT PLAN—IFR (Con't)

established for use at the altitude/flight level planned (see DIRECT FLIGHT below).

Example:

3000 DCA RVD BAL

Spelled Out: Requesting 3000 feet from Washington National, via direct Riverdale Radio Beacon direct Baltimore Friendship International.

(3) When the route of flight is defined by named reporting points, whether alone or in combination with airways or jet routes, and the navigational aids (VOR, VORTAC, TACAN, LF, RBN) to be used for the flight are a combination of different types of aids, enough information should be included to clearly indicate the route requested.

Example:

FL 310 LAX J5 LKV J3 GEG QE FL 330 HL500 LR HL515 WG

Spelled Out: Requesting Flight Level 310 from Los Angeles International via Jet Route 5 Lakeview, Jet Route 3 Spokane, direct Kimberly, British Columbia Low Frequency Range, Flight Level 330 High Level Airway 500 to Langruth, Manitoba VOR, High Level Airway 515 to Winnepeg, Manitoba.

(4) When filing IFR, it is to the pilots' advantage to file a "preferred route."

3. DIRECT FLIGHTS

a. All or any portions of the route which will not be flown on the radials/courses of established airways or routes, e.g., direct route flights, must be defined by indicating the radio fixes over which the flight will pass. Fixes selected to define the route shall be those over which the position of the aircraft can be accurately determined. Such fixes automatically become compulsory reporting points for the flight, unless advised otherwise by ATC. Only those navigational aids established for use in a particular structure, i.e., in the Low or High structures, may be used to define the en route phase of a direct flight within that structure.

b. The azimuth feature of VOR aids, and the azimuth and distance (DME) features of VORTAC/TACAN aids, are assigned certain frequency protected areas of airspace for direct route flight. These areas of airspace are expressed in terms of cylindrical service volumes of specified dimensions called "class limits." To facilitate correct use of VOR/VORTAC/TACAN aids, consistent with their normal frequency protection limits, pilot use of such aids for defining a direct route of flight in controlled airspace should not exceed the following:

(1) Operations above Flight Level 450–use aids not more than 200 nautical miles apart. These aids are depicted on the Coast and Geodetic Survey Flight Information Publication En Route High Altitude Chart–U.S.

(2) Operation off established routes from 18,000 feet M. S. L. to Flight Level 450–use aids not more than 260 nautical miles apart. These aids are depicted on the Coast and Geodetic Survey, Flight Information Publication, En Route High Altitude Chart—U.S.

(3) Operation off established airways below 18,000 feet M. S. L.—use aids not more than 80 nautical miles apart. These aids are depicted on the Coast and Geodetic Survey, Flight Information Publication, En Route, Low Altitude Chart —U.S.

c. Airway or jet route numbers, appropriate to the stratum in which operation will be conducted, may also be included to describe portions of the route to be flown.

Example:

140 MDW V6 V10 BRL STJ SLN GCK

Spelled Out: Requesting 14,000 feet Chicago Midway Airport Victor 6, Victor 10, Burlington, Iowa, direct St. Joseph, Missouri, direct Salina, Kansas, direct Garden City, Kansas.

NOTE.—When route of flight is described by radio fixes, the pilot will be expected to fly a direct course between the points named.

4. VFR OPERATIONS ON AN IFR FLIGHT PLAN (Ref. FAA EXAM-O-GRAM No. 6)

a. In preparation for IFR flight above an overcast or in an area of generally unlimited ceilings and visibility, pilots may request "VFR CONDITIONS ON TOP" to permit them to select an altitude, or altitudes of their choice, rather than specific ATC assigned altitudes.

b. Departing instrument-rated pilots who wish an IFR clearance only to climb through a layer of overcast or reduced visibility ,and then continue flight VFR may request ATC clearance "TO VFR CONDITIONS ON TOP". This request may be made through a Flight Service Station, by telephone to ATC, or by request to the Tower before taxiing out. The clearance, which authorizes IFR flight through the cloud layer, will contain a near-by clearance limit, routing, and a request to report reaching "VFR CONDITIONS ON TOP". When the pilot reaches "VFR CONDITIONS ON TOP" and desires to cancel the IFR portion of his flight, he should so state. This type of operation can be combined with a VFR Flight Plan to destination.

LIGHT PLAN—IFR (Con't)

c. No separation is provided. However, the pilot may expect to receive traffic information on known IFR traffic. Any time a pilot is flying "in the clear", whether at a specific assigned altitude or at an altitude assignment of "VFR CONDITIONS ON TOP", collision avoidance is the pilot's responsibility.

d. Remember that when flying on an IFR clearance with a VFR restriction, a pilot must comply with Instrument Flight Rules plus applicable Visual Flight Rules.

CANCELLING

a. IFR flight plans may be canceled any time by so notifying Air Traffic Control, provided the flight is operating in VFR weather conditions when such action is taken. Where conditions indicate that the remainder of the flight can be conducted in accordance with VFR, a pilot may avail himself o this procedure to remove any Air Traffic Contro restrictions which may have been issued affectin his flight.

b. An IFR flight plan may be cancelled by deliverin the following message to the controller or the air ground station with which the flight is in commun cation: "CANCEL MY IFR FLIGHT PLAN. Since Air Traffic Control cannot approve or disa prove cancellation of the IFR flight plan, a acknowledgement that the message has been r ceived is all that is required. If a flight plan ha been cancelled and subsequent IFR operation b comes necessary, a new IFR flight plan must b filed and a traffic clearance received before e countering IFR weather conditions.

NOTE.—Where a DVFR flight plan requirement exists will be the responsibility of the pilot to file this flight pla to replace the cancelled IFR flight plan.

DEPARTURE

COMMUNICATIONS

1. Pilots of departing aircraft should communicate with the control tower on the appropriate ground control frequency for taxi and clearance information and, unless otherwise advised, should remain on that frequency until they are ready to request take-off clearance. At that time, the pilot should communicate with the tower on the appropriate local control frequency.

2. The airport ground control frequencies 121.7 and 121.9 mc are normally provided to eliminate frequency congestion on the tower (local control) frequency. Provision of these frequencies for ground control and their use by aircraft and airport utility vehicles operated on the surface of the airport thus provides a clear VHF channel for arriving and departing aircraft. They are used for issuance of taxi information, clearances, and other necessary contacts between the tower and aircraft or other vehicles operated on the airport. Normally, only one of these ground control frequencies is assigned for use at an airport; however, at locations where the amount of traffic so warrants, both frequencies may be assigned with one or the other designated as a clearance delivery frequency.

3. Where the "ground control" frequency is not available (tower or aircraft), the tower normally will transmit to aircraft over an appropriae ground to air frequency.

4. Pilots of aircraft not equipped to transmit on a ground control frequency should transmit on the tower frequency and tune their receivers to the appropriate ground control frequency in accordance with the above.

NOTE.—See Airport Advisory Service (Non-Radar), under ARRIVAL, for communications procedures at airports not served by control towers.

LIGHT SIGNALS

1. The following procedures are used by airport traffic control towers in the control of aircraft not equipped with radio. These same procedures will be used to control aircraft equipped with radio if radio contact cannot be established. Airport traffic control personnel use a directive traffic control signal which emits an intense narrow beam of a selected color (either red, white, or green) when controlling traffic by light signals. Although the traffic signal light offers the advantage that some control may be exercised over non-radio equipped aircraft, all pilots should be cognizant of the disadvantages which are:

   a. The pilot may not be looking at the control tower at the time a signal is directed toward him.

   b. The directions transmitted by a light signal are very limited since only approval or disapproval of a pilot's anticipated actions may be transmitted. No supplementary or explanatory information may be transmitted except by the use of the "General Warning Signal" which advises the pilot to be on the alert.

2. Portable traffic control light signals:

Color and Type of Signal	On the Ground	In Flight
STEADY GREEN	Cleared for take-off	Cleared to land
FLASHING GREEN	Cleared to taxi	Return for landing (to be followed by steady green at proper time)
STEADY RED	Stop	Give way to other aircraft and continue circling
FLASHING RED	Taxi clear of landing area (runway) in use	Airport unsafe—do not land
FLASHING WHITE	Return to starting point on airport	
ALTERNATING RED & GREEN	General Warning Signal—Exercise Extreme Caution	

3. Between sunset and sunrise, a pilot wishing to attract the attention of the air traffic control tower operator should turn on a landing light and taxi the aircraft in position so that light is visible to the tower operator. The landing light should remain on until appropriate signals are received from the tower.

4. Pilots should acknowledge light signals by moving the ailerons or rudder during the hours of daylight or by blinking the landing or navigation lights during the hours of darkness.

LIGHT SIGNALS (Con't)

5. During the hours of daylight the lighting of the rotating beacon will mean that ground visibility is less than three miles and/or that the ceiling is less than 1000 feet. During the hours of darkness, flashing lights outlining the traffic direction indicator (tetrahedron, wind tee or other device) will mean that ground visibility is less than three miles and/or the ceiling is below 1000 feet. The lighting of either of these signals indicates that a clearance from Air Traffic Control is necessary for landing, take-off, or flight in the traffic pattern if the airport is within a control zone.

CLEARANCE

NOTE.—Refer to Airport Advisory Service (Nonradar), under ARRIVAL, for additional "clearance" information.

1. TAXI

a. A clearance must be obtained prior to taxiing on a runway, taking off or landing during the hours an airport traffic control tower is in operation. Authorization to taxi "to" a runway is authorization to cross runways that intersect the taxi route unless instructions to the contrary are received. Authorization to taxi "to" a runway does not constitute a clearance to taxi "on" that runway.

b. At those airports where the United States Government operates the control tower and ATC has authorized non-compliance with the requirement for two-way radio communications while operating within the airport traffic area, or at those airports where the United States Government does not operate the control tower and radio communications cannot be established, pilots shall obtain a clearance by visual light signal prior to taxiing on a runway and prior to take-off and landing. The following phraseologies and procedures are used in radio-telephone communications with aeronautical ground stations.

c. Aircraft identification, location, type of operation planned (VFR or IFR) and the point of first intended landing.

Example:

Aircraft: "WASHINGTON GROUND CONTROL, THIS IS BEECHCRAFT ONE THREE ONE FIVE NINER AT HANGAR EIGHT, READY TO TAXI, INSTRUMENT FLIGHT TO CHICAGO, OVER"

Tower: "BEECHCRAFT ONE THREE ONE FIVE NINER, RUNWAY THREE SIX, WIND ZERO THREE ZERO DEGREES AT TWO FIVE, ALTIMETER THREE ZERO ZERO FOUR, TIME ONE FOUR TWO SIX. GREENWICH, ZERO NINER TWO SIX EASTERN. TAXI SOUTH HOLD SHORT OF RUNWAY THREE." (Runways are numbered to correspond to their magnetic bearing. Runway 27, for example, has a bearing of 270°. Wind directions issued by control towers are also magnetic.)

Air route traffic control clearances are relay to pilots by airport traffic controllers in t following manner:

Example:

Tower: "ATC CLEARS BEECHCRAFT O THREE ONE FIVE NINER TO TI CHICAGO MIDWAY AIRPORT, V VICTOR EIGHT, MAINTAIN EIGI THOUSAND, OVER."

Aircraft: "BEECHCRAFT ONE THREE O FIVE NINER IS CLEARED TO TI CHICAGO MIDWAY AIRPORT, V VICTOR EIGHT, MAINTAIN EIGI THOUSAND, OVER."

NOTE.—Normally, an ATC IFR clearance is relayed t pilot by the ground controller. At busy locations, howe pilots may be instructed by the ground controller "CONTACT CLEARANCE DELIVERY" on a frequency ignated for this purpose. No surveillance or control o the movement of traffic is exercised by this position operation.

2. TAKEOFF

a. Withholding Take-Off Clearance

(1) Take-off clearance will be denied to the pi of any air carrier or commercial aircr carrying passengers or property for compen tion or hire whenever:

(a) The runway visual range (RVR) for departure runway is less than 2000 f at those locations which have runw visual range digital displays.

(b) If RVR is not available, runway visibil for the departure runway is less than quarter of a mile; or

(c) If neither RVR nor reported runway v bility is available, the prevailing visibil for the airport of departure is less t one quarter of a mile.

(2) If, upon being refused a take-off clearance pilot of an aircraft in the above categ advises he is not carrying passengers or pr erty for compensation or hire, for example business aircraft carrying company employ or an air carrier aircraft on a ferrying training flight, take-off clearance may authorized based on traffic conditions.

b. Air Traffic Clearance/Instruction

(1) When air traffic control issues a clearar pilots are expected to execute its provis after acceptance. Any clearance in which time of pilot execution is optional will state—"At pilot discretion."

(2) When air traffic control issues an instructi pilots are expected to comply with its p vision upon receipt. ATC, in certain sit tions, will include the word "IMME ATELY" in an instruction to impress urge of an imminent situation and expeditious c pliance by the pilot is expected and necess for safety.

CLEARANCE (Con't)

(3) Traffic clearances will only provide standard separation between IFR flights. *During the time an IFR flight is operating in VFR weather conditions, it is the direct responsibility of the pilot to avoid other aircraft, since VFR flights may be operating in the same area without the knowledge of ATC.*

(4) Air Traffic Control will not issue clearances specifying that climb or descent or any portion of the flight be conducted in "VFR conditions," to any IFR flight, regardless of altitude, except under emergency situations, or unless specifically requested by the pilot. When a VFR restriction is issued at the pilot's request, general traffic information will be issued to to the pilot of an aircraft operating with a clearance specifying a "VFR conditions" restriction for climb or descent.

(5) A traffic clearance originated by an ARTC Center and relayed to the pilot through a control or air/ground communication station will be prefixed by "ATC CLEARS." Other ATC messages which are originated by a center will be prefixed with "ATC REQUESTS" or "ATC ADVISES."

(6) The traffic clearance issued prior to departure will normally authorize flight to the airport of intended landing. Under certain conditions, at some locations a short range clearance procedure is utilized whereby a clearance is issued to a fix within or just outside of the terminal area and the pilot is advised of the frequency on which he will receive the long range clearance direct from the center controller.

(7) ATC facilities will use the phrase "VIA FLIGHT PLANNED ROUTE" in air traffic clearances to replace the lengthier detailed description of any portion of the route of flight that is identical to the route filed by the pilot. When used, the phrase will be preceeded by sufficient detailed route of flight information to establish the flight on the filed route. The *"VIA FLIGHT PLANNED ROUTE" phraseology does not include approval of altitudes filed in the flight plan. Specific altitude assignments will be issued in each clearance.* Approval of any change of altitude, whether such altitude is contained in the flight plan or is subsequently desired en route, should be requested prior to reaching the point at which it is desired to make the change. IFR flight plans filed by the pilots should contain the complete route of flight and should be relayed to Air Traffic Control unchanged. Pilots may request route verification when considered necessary and are requested to do so whenever a filed route has been changed prior to departure. If route verification is desired prior to departure, the request should be included with initial call for taxi clearance to avoid delay in receiving the information.

(8) Amendments to the initial clearance will be issued at any time an air traffic controller deems such action necessary to avoid possible confliction between aircraft. Clearances will require that a flight "hold" or change altitude prior to reaching the point where standard separation from other IFR traffic would no longer exist. Some pilots have questioned this action and requested "traffic information" and were at a loss when the reply indicated "no traffic reported." In such cases the controller has taken action to prevent a traffic confliction which would have occurred at a distant point.

(9) A pilot may wish an explanation of the handling of his flight at the time of occurrence; however, controllers are not able to take time from their immediate control duties nor can they afford to overload the ATC communications channels to furnish explanations. Pilots may obtain an explanation by directing a letter or telephone call to the chief controller of the facility involved.

(10) Clearances are normally issued for the altitude/flight level and route filed by the pilot. However, due to traffic conditions, it is frequently necessary for ATC to specify an altitude/flight level or route different from that requested by the pilot. In addition, flow patterns have been established in certain congested areas, or between congested areas, whereby traffic capacity is increased by routing all traffic on preferred routes. Information on these flow patterns is available in offices where pre-flight briefing is furnished or where flight plans are accepted.

(11) The pilot has the privilege of requesting a different clearance from that which has been issued by ATC if he feels that he has information which would make another course of action more practicable or if aircraft equipment limitations or company procedures forbid compliance with the clearance issued.

(12) Whenever an aircraft has been cleared to a point other than the destination airport, it is the responsibility of the ATC controller to furnish the pilot (or the air/ground communications facility concerned) with an additional clearance prior to the time the flight arrives at the clearance limit. This clearance may authorize flight beyond the clearance limit or contain holding instructions for the flight. However, when such clearance is not received by the time a flight is three minutes from the clearance limit the pilot is expected to effect speed reduction so as to cross the clearance limit initially at or below maximum holding

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speed (unless subsequent clearance prior to reaching the clearance limit permits flight beyond it); and when reaching the clearance limit, begin holding in a STANDARD HOLDING PATTERN ON THE COURSE ON WHICH HE APPROACHES THE FIX (disregarding any other pattern shown for the fix), maintaining the last assigned altitude/flight level and immediately request further clearance through the air/ground station. The altitude/flight level of the aircraft at this clearance limit will be protected so that separation will exist in the event the aircraft holds awaiting further clearance.

NOTE.—The foregoing should not be construed as being related in any way to the procedures which apply when a two-way radio failure occurs.

(13) Pilots should pay particular attention to the clearance and not assume that the route and altitude/flight level are the same as requested in the flight plan. It is suggested that pilots make a written record of clearances at the time they are received, and verify, by a repeat back, any portions that are complex or about which a doubt exists.

(14) The symbols and abbreviations listed below are used by FAA personnel in recording clearance information. They may also be used to advantage by pilots and other personnel receiving ATC clearances:

C	ATC CLEARS
R	CLEARED TO THE RANGE
A'	CLEARED TO THE AIRPORT OF DESTINATION
↓	DESCEND AND MAINTAIN ALTITUDE/FLIGHT LEVEL)
↑	CLIMB AND MAINTAIN (ALTITUDE/FLIGHT LEVEL)
→	CRUISE
X	CLEARED TO CROSS AIRWAY
M	MAINTAIN
H–NE	HOLD (Direction from fix)
OTP	MAINTAIN VFR ON TOP OF ALL: CLOUDS, HAZE, SMOKE OR FOG
RL	REPORT LEAVING Specified Altitude/s)
RR	REPORT REACHING (Specified Altitude/s)
RP	REPORT PASSING (Specified Fix) or RIGHT TRAFFIC PATTERN
LT	TURN LEFT AFTER TAKE-OFF
RT	TURN RIGHT AFTER TAKE-OFF
RS	RIGHT SIDE
LS	LEFT SIDE
EAC	EXPECT APPROACH CLEARANCE AT (Specified Time)

DLA INDFT (TIME)
DELAY INDEFINITE EXPECT APPROACH CLEARANCE NO LATER THAN (Specified Time

UFA	UNTIL FURTHER ADVISED
A/C	APPROACH CONTROL

Where the symbols and abbreviations are n sufficient to copy the complete message, u plain language so that no misunderstandi of the message will occur.

c. Special VFR Flight Clearance Procedur (F.A.R. Part 91.107)

(1) An Air Traffic Control clearance is necessa to avoid collision when operating under sp cial VFR weather minimums in a contr zone. When a control tower is located with the control zone, a clearance must obtain from the tower before entering the contr zone. If no control tower is located with the control zone, a clearance must be obtain from the nearest tower, center, or Flight Ser ice Station, prior to entering the control zon In this instance, clearance arrangements c be made by telephone.

(2) It is not necessary to file a complete flig plan with the request for clearance but t pilot should state his intentions in sufficie detail to permit air traffic control to fit h flight into the traffic flow. The clearance wi not contain a specific altitude as the pil must remain clear of clouds. The controll may require the pilot to fly at or below a ce tain altitude due to other traffic, but the alt tude specified will permit flight at or abo the minimum safe altitude. In addition, radar locations, flights may be vectored necessary for control purposes or on pil request.

3. STANDARD INSTRUMENT DEPARTURES (SIDS)

a. A Standard Instrument Departure (SID) is air traffic control coded departure routing whi has been established at certain airports to simpli clearance delivery procedures.

b. Pilots of air carrier or military aircraft operati under Instrument Flight Rules (IFR) at airpor for which SIDs have been published maybe issu clearances whenever ATC determines it is a propriate.

c. Pilots of other than air carrier or military ai craft operating under Instrument Flight Rul (IFR) at airports for which SIDs have be published will not be issued a SID clearance ATC unless requested by the pilot.

d. SIDs are published by the Coast & Geodetic Su vey as a part of the Flight Information Public tion package.

4. ADHERENCE TO AIR TRAFFIC CLEARANCE

a. When an air traffic clearance has been obtain under either the Visual or Instrument Flig Rules, the pilot in command of the aircraft sh not deviate from the provisions thereof unless

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amended clearance is obtained. The addition of a VFR or other restriction, i.e., climb/descent point or time, crossing altitude etc., does not authorize a pilot to deviate from the route of flight or any other provision of the air traffic control clearance.

b. The most important and guiding principal to remember is that the last ATC clearance has precedence over related portions of the previous ATC clearance. A clearance which amends an altitude of a previous clearance does not affect route of flight nor does a clearance which amends the route of flight affect the altitude portion of a previous clearance.

Example: A departure flight receives a clearance to destination airport to maintain Flight Level 290. The clearance incorporates a SID which has certain altitude crossing instructions. Shortly after take-off, the pilot receives a new clearance changing the maintaining Flight Level from 290 to 250. In this instance, altitude restrictions are automatically canceled and the pilot should commence an unrestrictive climb to Flight Level 250. If the controller had wished to retain the altitude restrictions, he would have either restated them or made it clear in the language of the clearance that only the final maintaining level was being changed.

c. In case emergency authority is used to deviate from provisions of an ATC clearance the pilot in command shall notify ATC as soon as possible and obtain an amended clearance. In an emergency situation which results in no deviation from the Rules prescribed in Part 91 but which requires air traffic control to give priority to an aircraft, the pilot of such aircraft shall make a report within 48 hours of such emergency situation to the nearest FAA Regional Office.

d. In addition to altitude/flight level destination and/or route changes, increasing or decreasing the speed of an aircraft constitutes a change in a flight plan. Therefore, at any time the average true airspeed at cruising altitude between reporting points varies or is expected to vary from that given in the flight plan by *plus or minus ten knots* air traffic control should be advised.

e. Air traffic clearances include data to assist pilots in identifying radio reporting points for where there is more than one type with the same name, for example: "Denver VOR." It is the responsibility of a pilot to notify air traffic control immediately if his radio equipment cannot receive the type of signals he must utilize to comply with his clearance.

f. The altitude/flight level instructions in an ATC clearance normally require that a pilot "MAINTAIN" the altitude/flight level at which the flight will operate when in controlled airspace. Altitude/flight level changes while en route should be requested prior to the time the change is desired.

g. The term "CRUISE" may be used instead of "MAINTAIN" to signify to the pilot that descent from cruising altitude may be commenced at his discretion without further clearance from ATC. "CRUISE" is normally used only for relatively short flights in uncongested areas and is authorization for the flight to proceed to, and make an approach at, destination.

5. SEPARATION STANDARDS

a. Air traffic control effects separation of aircraft vertically by assigning different altitudes; longitudinally by providing a minimum time separation between aircraft on the same courses; and laterally by assigning different flight paths.

b. Standard separation will be provided between all aircraft operating on IFR flight plans except: (1) when "VFR Conditions-On-Top" has been requested by a pilot and authorized by ATC in lieu of a specific cruising or holding altitude, and (2) when clearances specifying that climb or descent or any portion of the flight shall be conducted in "VFR Conditions" are issued.

DEPARTURE CONTROL

1. Departure Control is a tower function responsible for ensuring separation between departures. So as to expedite the handling of departures, Departure Control may suggest a take-off direction other than that which may normally have been used under VFR handling. Many times it is preferred to offer the pilot a runway that will require the fewest turns after take-off to place the pilot on his filed course or selected departure route as quickly as possible. At many locations particular attention is paid to the use of preferential runways for local noise abatement programs, and route departures away from congested areas.

2. Departure Control utilizing radar will normally clear aircraft out of the terminal area using standard instrument departures via radio navigation aids. When a departure is to be vectored immediately following take-off, the pilot will be advised prior to take-off of the initial heading to be flown. When given a vector taking his aircraft off a previously assigned nonradar route, the pilot will be advised briefly what the vector is to achieve. Thereafter, radar service will be provided until the aircraft has been re-established "on-course" using an appropriate navigation aid and the pilot has been advised of his position; or, a handoff is made to another radar controller with further surveillance capabilities.

3. Controllers will inform pilots of the departure control frequencies and, if appropriate, the transponder code before take-off. Pilots should not operate their transponder until ready to start the take-off roll or change to the departure control frequency until required.

ENROUTE

AIRWAYS/ROUTE SYSTEMS

1. Two route systems have been established for air navigational purposes in the continguous 48 states; the VOR and L/MF System and the Jet Route System.

   a. The VOR and L/MF Airway System consists of airways designated from 700 feet above the surface (or in some instances higher) to but not including 18,000 feet MSL and is designed to serve aircraft which operate at these altitudes. These airways are depicted on Coast and Geodetic Survey, Flight Information Publications, En Route Low Altitude Charts—U.S. Series L–1 through L–28.

   (1) The VOR airways are predicated solely on VOR/VORTAC navigation aids and are depicted on aeronautical charts by a "V" ("Victor") followed by the airway number, e.g., V 12. These airways are numbered similarly to U.S. highways. As in the highway numbering system, a segment of an airway which is common to two or more routes carries the numbers of all the airways which coincide for that segment. When such is the case a pilot in filing a flight plan needs to indicate only that airway number of the route which he is using. *Alternate Airways* are identified by their location with respect to the associated main airway. "Victor 9 West" indicates an alternate airway associated with, and lying to the west of Victor 9. As in the interstate highway system, major metropolitan areas, in many instances, are connected by *preferred routes* of flight which may include many numbered airway segments. To facilitate flight planning and to reduce phraseology, these preferred routes are assigned an 800 series airway number. Accordingly, a pilot in filing a flight plan need only to indicate the 800 series airway number assigned to the route he is using.

   (2) One of the major reasons for establishing a VOR airway system separate from the colored airway system (L/MF) is to facilitate route identification in flight plans and air traffic clearances. A pilot who intends to make an airway flight, using VOR facilities, will simply specify the appropriate "Victor" airway(s) in his flight plan. For example, if a flight is to be made from Chicago to New Orlea at 8000 feet, using omniranges only, the rou may be indicated as "Departing from Ch cago-Midway, cruising 8000 feet via Victor to Moisant International." If flight is to l conducted in part by means of L/MF nav gation aids and in part on omniranges, spec fications of the appropriate colored airwa and Victor airways in the flight plan will i dicate which types of facilities will be us along the described routes, and, for IF flight, permit ATC to issue a traffic clearan accordingly. As an example, route inform tion for a flight from Chicago to New Orlea using L/MF facilities to St. Louis and VOR to New Orleans would be given as "Departin Chicago-Midway cruising 8000 feet via Red 1 Amber 5 to St. Louis Victor 9 to Moisant I ternational." A route may also be describe by specifying the station over which the flig will pass, but in this case since many VOR and L/MF aids have the same name, the pil must be careful to indicate which aid wi be used at a particular location. This wi be indicated in the route of flight portion the flight plan by specifying the type of f cility to be used after the location name in t following manner: Newark L/MF, Allentow VOR.

   (3) With respect to position reporting, compulso reporting points are designated for VOR Ai way Systems. Flights using Victor Airwa will report over these points only, unless r quested otherwise by ATC to furnish ad tional position reports.

   (4) The L/MF airways are predicated sole on L/MF navigation aids and are depicted aeronautical charts by color and number; e. Amber One. Green and Red airways a plotted east and west. Amber and Blue a ways are plotted north and south. This c solete system, which is incompatible with t VOR system, is almost entirely replaced by t VOR airway system.

   b. The Jet Route System consists of jet routes esta lished from 18,000 feet MSL to FL 450 inclusi designed to serve aircraft which customarily op ate at these altitudes.

AIRWAYS/ROUTE SYSTEMS (Con't)

(1) Jet routes are based on VOR, VOR-DME and VORTAC facilities shown on high altitude charts. They are identified by the letter "J" followed by a number. This structure is depicted on Coast and Geodetic Survey Flight Information En Route High Altitude Charts—U.S. Series H–1 through H–4.

(2) Operation above FL 450 may be conducted on a point-to-point basis. Navigational guidance is provided on an area basis utilizing those facilities depicted on the Coast and Geodetic Survey, Flight Information Publication En Route High Altitude Charts—U.S. Series H–1 through H–4.

To the extent possible, these route systems have been aligned in an overlying manner to facilitate transition between each. To simplify definition of route and to facilitate air traffic control, pilots are requested to file via the airways/jet routes published for the altitude/flight level planned.

Pilots are cautioned when flying in Canadian airspace, to review Canadian Air Regulations. Special attention should be given to the parts which differ from U.S. Federal Aviation Regulations. For example, the Canadian airways "Block Airspace" restriction, which requires an ATC clearance when flying on airways between 9500′ and 23,000′ MSL east of longitude 114°W and between 12,500′ and 23,000′ MSL west of longitude 114°W. In addition, no person holding a commercial or private pilot license without an instrument rating shall operate an aircraft in VFR flight within block airspace unless he has successfully completed a written examination demonstrating his knowledge of radio navigation and of air traffic control procedures applicable to IFR flight including clearances and position reports and his license is endorsed to that effect by the Canadian Department of Transport.

CONTINENTAL CONTROL AREA

The Continental Control Area consists of the airspace of the 48 contiguous states and the District of Columbia at and above 14,500 feet MSL, but does not include:

a. The airspace less than 1500 feet above the surface of the earth; or

b. Prohibited and restricted areas, other than restricted area military climb corridors and the restricted areas listed in Subpart D of Part 71 of the F.A.R.

To alleviate the risk of collision between the high performance aircraft using this airspace, VFR minimums have been increased to: visibility, 5 miles; distance from clouds, 1000 feet under, 1000 over, and one mile horizontally.

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POSITIVE CONTROL AREA

1. Airspace so designated wherein all aircraft are controlled. For operations within positive control areas, aircraft must be:

   a. Operated under IFR at specified altitude assigned by ATC.

   b. Equipped with instruments and equipment required for IFR operations and is flown by a pilot rated for instrument flight;

   c. Equipped with a coded radar beacon transponder, having a Mode A (military Mode 3) 64 code capability, reply to Mode 3/A interrogation with the code specified by ATC: and

   d. Radio equipped to provide direct pilot/controller communication on the frequency specified by ATC for the area concerned.

2. ATC may authorize deviations from the above requirements for operation in a positive control area. In the case of in-flight failure of a radar beacon transponder, ATC may immediately approve operation within a positive control area. In all other cases, requests for an authorization to deviate must be submitted at least four days before the proposed operation, in writing, to the ARTC Center having jurisdiction over the positive control area concerned. ATC may authorize deviations on a continuing basis or for an individual flight, as appropriate.

JET ADVISORY SERVICE

1. GENERAL

a. Jet Advisory Service has been established as a means of providing an increased degree of safety for civil air carrier turbojet and certain other civil flights. In radar jet advisory areas, this service is performed by selected radar equipped facilities and provides the pilots of civil air carrier turbojet and certain other civil flights with information intended to aid them to see and/or avoid other pertinent traffic. In nonradar jet advisory areas, civil air carrier turbojet and certain other civil flights receiving this service are afforded standard IFR separation from all other flights known by ATC to be operating within these areas. Although standard ATC separation is provided between aircraft receiving jet advisory service and all other aircraft within the nonradar jet advisory area, standard separation is not provided and may not exist between such aircraft and aircraft operating VFR or VFR conditions-on-top outside the area.

b. This service is provided to all civil air carrier turbojet flights. It is proffered by the appropriate ATC facility to other IFR civil flights, excluding those cleared to maintain "VFR conditions" or "VFR conditions-on-top," which are radar beacon

JET ADVISORY SERVICE (Con't)

equipped and cleared via jet routes along which jet advisory areas are prescribed; except that, jet advisory service is not provided to flights, other than civil air carrier turbojets, whose pilots have declined the service. Whenever workload will not permit provision of this service to all flights specified herein, it may be discontinued to flights other than civil air carrier turbojets. In such event, pilots of those flights affected will be so advised.

c. Except where positive control areas have been established, radar jet advisory areas consist of airspace prescribed not more than 16 statute miles on either side of specified jet routes, and in certain control areas and control area extensions, between Flight Levels 240 and 410 inclusive. Due to limited vertical radar coverage, however, the lower limits may be established above Flight Level 240 and therefore, may overlie nonradar jet advisory areas. When radar jet advisory areas are established above nonradar jet advisory areas, the nonradar jet advisory areas are limited to levels below the radar jet advisory areas.

2. DEFINITIONS

Jet advisory service—The service provided certain civil flights while operating within radar and nonradar jet advisory areas. Within radar jet advisory areas, civil flights receiving this service are provided radar flight following, radar traffic information and vectors around observed traffic. In nonradar jet advisory areas, civil flights receiving this service are afforded standard IFR separation from all other flights known to ATC to be operating within these areas.

Radar flight following—The radar tracking of identified aircraft targets and the observation of the progress of such flights sufficiently to perform a particular radar function.

Radar traffic information—Any aircraft observed on the radar scope which in the judgment of the controller appears to constitute a hazard to the operation of flight being provided jet advisory service.

NOTE.—Radar jet advisory areas and nonradar jet advisory areas and the flight levels comprising these areas are depicted on En Route-High Altitude Charts, U.S.

3. JET ADVISORY AREA PROCEDURES

a. F.A.R. Part 91.99 requires an aircraft equipped with a functioning Mode 3/A radar beacon transponder, to operate the transponder on the code specified by ATC. This regulation imposes no additional operational restriction, control or communications requirements on non-air carrier civil or military VFR flights or IFR flights cleared to climb or descend in VFR conditions or cleared to maintain VFR conditions-on-top when operating within radar jet advisory areas.

(1) To comply with the transponder requirements, transponders shall be adjusted as outlined in "Air Traffic Control Radar Beacon Sys (ATCRBS)."

NOTE.—Although charts may show radar jet advi areas overlapping restricted airspace, pilots of aircraft ducting authorized operations within such airspace are required to operate transponders during the time such space is being utilized for the purpose for which designa however, operation of transponders as described abo encouraged. Flights authorized by the air traffic co facility (controlling agency) to operate through or w such airspace, or flights leaving such airspace to ent radar jet advisory area are required to operate transpo as described above.

b. Pilots of aircraft not equipped with functio coded beacon transponders desiring to ope within radar jet advisory areas when operat VFR, or IFR when cleared to climb or descen VFR conditions or to maintain VFR condit on-top, must obtain specific authorization from appropriate ARTC Center prior to the tim entering such areas. ATC clearances specif climb or descent in VFR conditions or a cru level of VFR conditions-on-top, but not inclu specific authorization to operate within or ac radar jet advisory areas, do not constitute approval.

c. In the event of two-way communications fa which precludes obtaining authorization to ope within a radar jet advisory area, the flight n

(1) When IFR—operate within a radar jet visory area provided a specific altitude been assigned by ATC.

(2) When VFR—Operate within a radar jet visory area provided an appropriate cruising flight level is maintained.

4. SERVICE PROVIDED CIVIL AIR CARRIER TUR JET AND CERTAIN OTHER CIVIL FLIGHTS WI IN AREAS OF RADAR COVERAGE

a. Civil air carrier turbojet and certain other flights, as described in Paragraph 1.b above. provided service as follows:

(1) Within radar jet advisory areas, flights radar flight followed and furnished t information and vectors, subject to limita set forth below, to avoid traffic observed radar.

(2) Within positive control airspace, jet adv service is not provided and procedures scribed for control of traffic within such space apply.

(3) Outside radar jet advisory areas and pos control airspace, IFR flights are radar f followed and furnished radar traffic info tion at all altitudes and flight levels to maximum extent practicable consistent controller workload and limitations of radar equipment.

b. Primary radar is utilized at all times, unless cipitation or electronic countermeasure i ference or other conditions render it unus

JET ADVISORY SERVICE (Con't)

Radar beacon is utilized for identification, radar handoff and primary radar target reinforcement to the maximum extent practicable. In the event either the primary radar or the radar beacon system is unusable, service is continued with that system which is still usable, and pilots are advised accordingly.

NOTE—Due to the fact that coverage patterns obtained from primary radar and radar beacon may not be the same in all areas, even though their antennas are co-located, it is possible that this service will be provided in areas from which only primary radar or radar beacon returns are being received. If both systems are operating normally the pilot will not be advised of these circumstances.

c. Radar handoff of flights receiving this service is effected at all times above Flight Level 240 within overlapping radar coverage, unless the controller is prevented from doing so by circumstances beyond his control. Radar handoff of these flights below Flight Level 240 is effected to the extent permitted by equipment, trained personnel and traffic conditions.

d. Traffic information furnished flights receiving this service includes, to the extent practicable, information as to whether observed radar traffic is seen with radar beacon, and if the type aircraft is unknown, by the use of the words "fast" or "slow," advice on the relative speed of the observed radar traffic.

e. Whenever, in the opinion of the jet advisory controller, an observed primary radar or beacon aircraft target is on a course which is likely to cause it to merge with or touch the target of the flight receiving this service, that flight is vectored to avoid the observed traffic, insofar as possible, whether or not the pilot requests vectoring, except that:

(1) Whenever feasible, flights not receiving this service, but radar identified and in communication with the jet advisory controller, may be vectored to avoid the flight being provided the service.

(2) If the pilot of the flight being provided this service advises that he does not desire vectoring, the controller does not provide radar vectors but will continue to provide traffic information.

(3) If the pilot of the flight being provided this service advises that he has the potentially conflicting traffic in sight, radar vectors are not given.

(4) Flights receiving this service are not vectored to avoid nonbeacon targets which are judged by the controller to be slow moving, unless specifically requested by the pilot; however, traffic information regarding such flights is furnished.

(5) Flights receiving this service are not vectored to avoid other IFR flights that are in communication with the jet advisory controller; are radar identified; and are being afforded nonradar IFR separation from these flights. When such flights are operating at assigned flight levels which differ by 2,000 feet or less from the assigned flight level of the flight being provided this service and the radar flight paths of these aircraft are such that, in the opinion of the controller, a vector would be necessary if altitude separation did not exist, the controller will issue traffic information, including assigned flight levels, to both aircraft concerned.

(6) When a concentration of targets is observed by the jet advisory controller which precludes vectoring to avoid individual targets, pilots of flights receiving this service are advised of the traffic, and that vectors cannot be given from individual targets. They are also told the extent of vectoring that would be necessary to avoid the area in which said traffic exists. Should a pilot request to be vectored around that area, the request will be complied with, provided it is within usable radar coverage. Should he not request vectoring around the area, he will be advised when his aircraft is clear of the area and vectoring from individual targets is being resumed.

f. When a civil flight, as specified in Paragraph 1.b., is operating VFR in a terminal area, the terminal air traffic control facility provides radar traffic information or, in lieu thereof, visual surveillance and advice regarding traffic to the maximum extent practicable consistent with workload, traffic conditions, weather, etc. Insofar as is possible, radar surveillance is maintained until visual surveillance is established.

5. RADIO OR RADAR FAILURE PROCEDURES APPLICABLE TO FLIGHTS BEING PROVIDED RADAR JET ADVISORY SERVICE

a. In the event of a ground radar failure the pilot is expected to continue in accordance with his last received ATC clearance remaining on the radar facility's radio frequency until further advised. If the radar failure will be prolonged, the pilot may be advised to change to an appropriate ARTC Center frequency until radar service can be resumed.

b. In the event of loss of communication with the jet advisory controller on the last assigned control frequency, the pilot should attempt to re-establish communication with the controller as specified in "COMMUNICATIONS". If it has been determined that only the aircraft transmitting capabilities have failed, the pilot should be alert for advice on the last assigned control frequency or 121.5 mc to acknowledge instructions by actuating the radar beacon IDENT features or by executing specific code changes.

JET ADVISORY SERVICE (Con't)

6. VFR FLIGHT REQUIREMENTS FOR NONRADAR JET ADVISORY AREAS

a. These areas consist of airspace prescribed from Flight Level 270 thru 310 inclusive, and from Flight Level 370 thru 410 inclusive, along segments of specified jet routes where radar traffic information cannot be provided due to lack of radar coverage. Their width is not more than 16 statute miles on either side of such jet routes as specified in Federal Aviation Regulations, Part 75.

b. Air Route Traffic Control Centers provide IFR separation between civil flights receiving this service and all other aircraft known to ATC operating within nonradar jet advisory areas, including VFR and IFR flights cleared to maintain VFR conditions-on-top or to climb or descend in VFR conditions, which are authorized to transit nonradar jet advisory areas. The following operational procedures apply to pilots of all aircraft operating VFR, as well as those cleared by ATC to climb or descend in VFR conditions or cleared to maintain VFR conditions-on-top which desire to fly across or within those areas designated as nonradar jet advisory areas.

(1) Specific authorization must be obtained from the appropriate ARTC Center prior to entering these designated areas. When an ATC clearance specifies climb or descent in VFR conditions or a cruising level of VFR conditions-on-top and does not include specific authorization to transit these areas, the pilot must obtain such authorization prior to entering a nonradar jet advisory area.

c. Request for specific authorization to proceed VFR or VFR conditions-on-top, across or within these areas must include a position report, type of aircraft and estimated time of entry and exit from these segments. Unrestricted authorization will be granted, except that when conflict with a civil flight receiving this service is indicated, aircraft operating VFR or IFR maintaining VFR conditions-on-top will be advised of the civil flight and said approval will restrict operation to specific flight level(s), time or locality, as appropriate, to preclude conflict with the civil flight.

d. No ATC separation is provided between VFR traffic or between VFR and IFR traffic other than civil flights receiving this service; however, traffic information is issued as appropriate.

7. The above procedures are applicable to those areas designated in Part 75 of Federal Aviation Regulations.

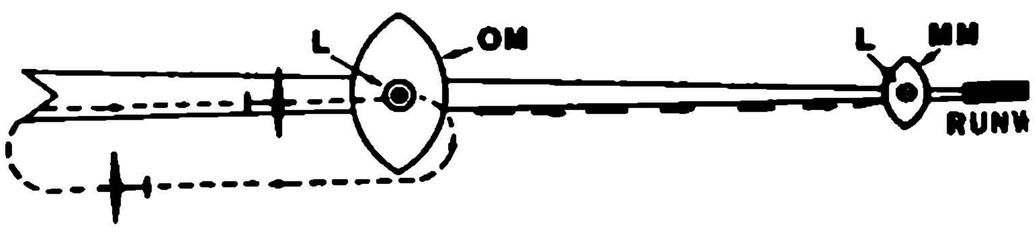
HOLDING

1. When holding at a VOR station pilots should begin the turn to the outbound leg at the time of the first complete reversal of the "to-from" indicator.
2. The direction to hold with relation to the holding fix will be specified as one of eight general points of the compass; i.e., North, Northeast, East, etc.
3. Pilots are always expected to hold in a stand right turn pattern unless specifically advised otl wise by ATC. When it is necessary that a r standard pattern be flown, the ATC clearance s specify "left turns."
4. ATC clearance requiring that an aircraft be hel a holding point will include the following infor tion:

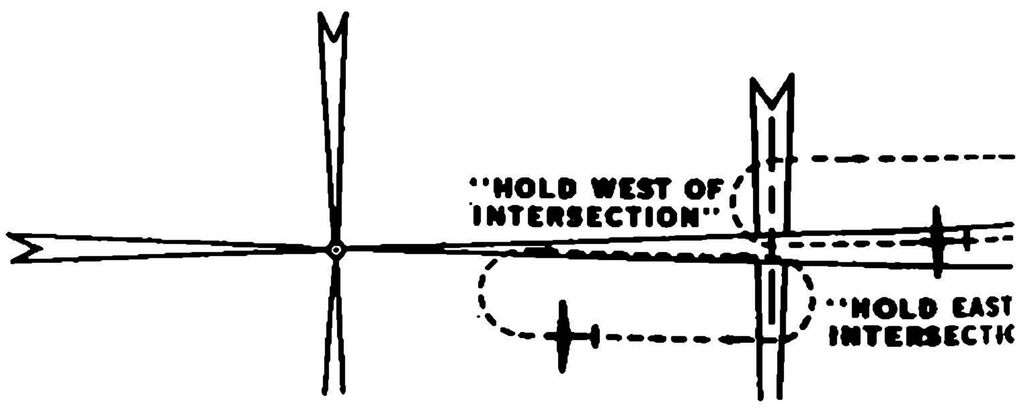
a. To hold in a Standard or Nonstandard Pattern.
(1) The direction to hold from holding point;
(2) Holding fix;
(3) On (specified) radial, course, magnetic b ing, airway number or jet route;
(4) Outbound leg length in nautical miles if D is to be used;
(5) Left turns, if nonstandard pattern is to used;
(6) Time to expect further clearance, or tim expect approach clearance.

b. Detailed holding instructions: Same as a (1), and (3) above with following additions to (4) (5):
(4), or minute/s if DME is not to be used.
(5), or right turns if standard pattern is to be u

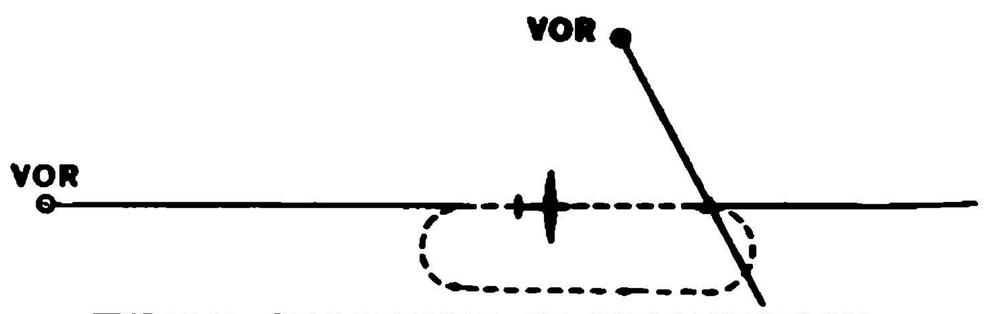
EXAMPLES OF HOLDING



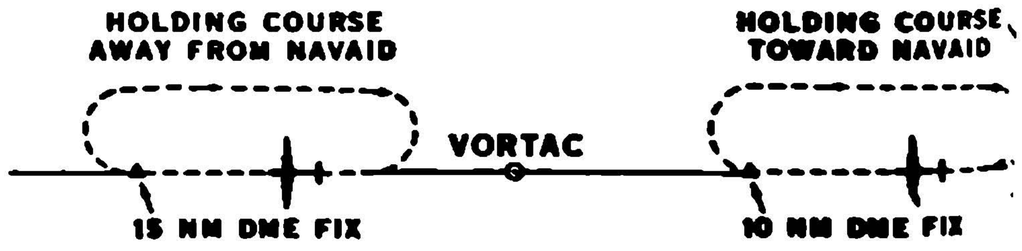
TYPICAL PROCEDURE ON AN ILS OUTER MARKER



TYPICAL PROCEDURE AT INTERSECTION OF RADIO RANGE COURSES



TYPICAL PROCEDURE AT INTERSECTION OF VOR RADIALS



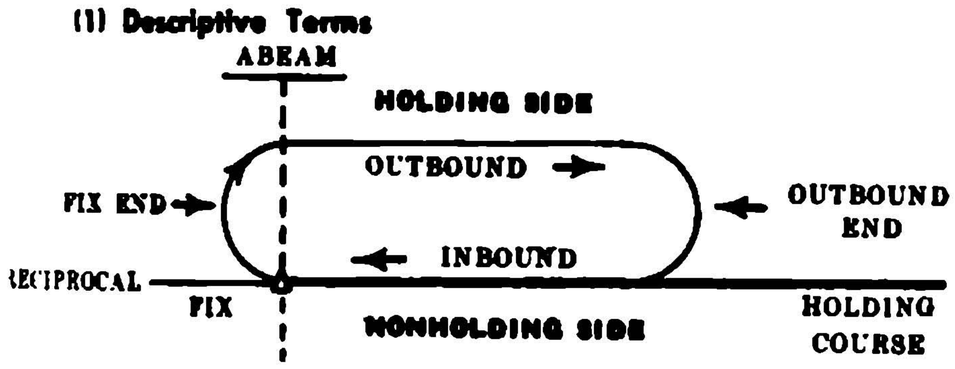
TYPICAL PROCEDURE AT DME FIX

HOLDING (Con't)

i. Holding pattern airspace protection is based on the following procedures. They are the only procedures for entry and holding recommended by FAA.

a. Entry Procedures

(1) Descriptive Terms



Standard Pattern : Right turns (illustrated)
Nonstandard Pattern: Left turns

(2) AIRSPEEDS (MAXIMUM)

(a) Propeller-driven ---------- 175K IAS

(b) Civil turbojet

1. MHA through 6,000 feet -- 200K IAS
2. Above 6,000 feet through 14,000 feet ---------- 210K IAS
3. Aboue 14,000 feet -------- 230K IAS

(c) Military turbojet

1. All-except aircraft listed below in (2) and (3) ------- 230 IAS
2. F-84F, F-100[1], F-102, F-104, F-106, T-38, F-4, F-8, F-11, A-5 ---------- 265K IAS
3. F-100[1], F/RF-101, F-105, B-58 ---------- 310K IAS

[1] F-100 holding speed depends upon weight and drag configuration.

(d). Turboprop aircraft may operate at normal climb IAS while climbing in a holding pattern and turbojet aircraft may operate at 310K IAS or less while climbing in a holding pattern.

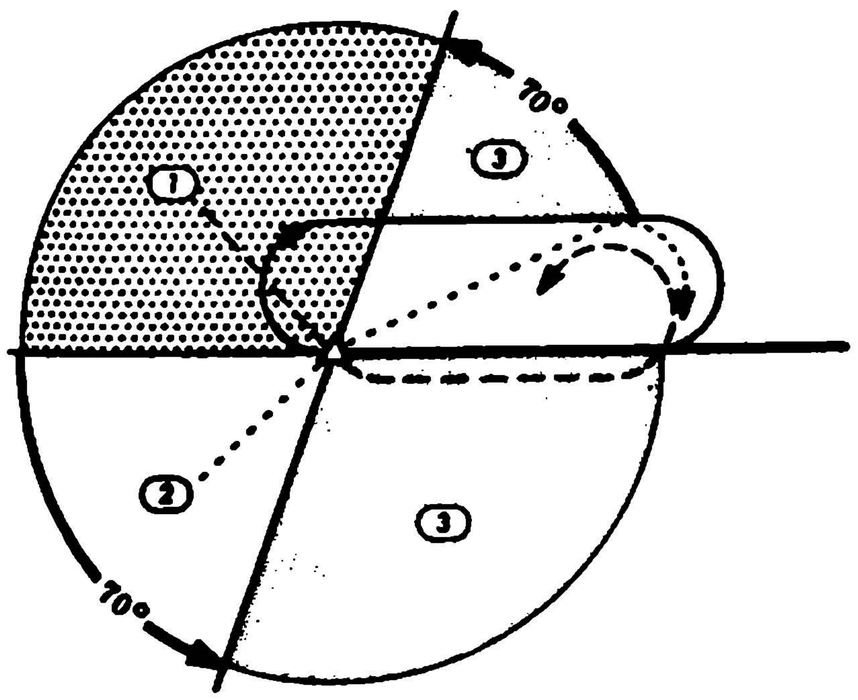
(3) ENTRY

(a) Parallel Procedure—Parallel holding course, turn left, and return to holding fix or intercept holding course.

(b) Teardrop Procedure—Proceed on outbound track of 30° (or less) to holding course, turn right to intercept holding course.

(c) Direct Entry Procedure—Turn right and fly the pattern.

STANDARD PATTERN



(4) TIMING

(a)	At or below 14,000 ft. MSL	Above 14,000 ft. MSL
INBOUND leg*	1 min.	1½ min.

*NOTE.—The *initial* outbound leg should be flown for 1 min. or 1½ min. (appropriate to altitude). Timing for subsequent outbound legs should be adjusted as necessary to achieve proper inbound leg time.

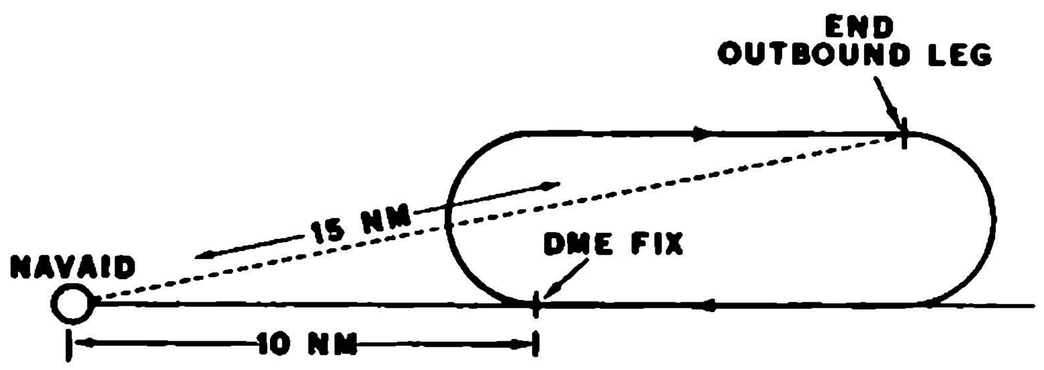
(b) Outbound timing begins *over* or *abeam* the fix, whichever occurs later. If the *abeam* position cannot be determined, start timing when turn to outbound is completed.

(5) DISTANCE MEASURING EQUIPMENT (DME)

(a) DME holding is subject to the same entry and holding procedures except that distances (nautical miles) are used in lieu of time values. The *outbound course* of a DME holding pattern is called the outbound leg of the pattern. The length of the outbound leg will be specified by the controller. The end of the outbound leg is determined by the odometer reading.

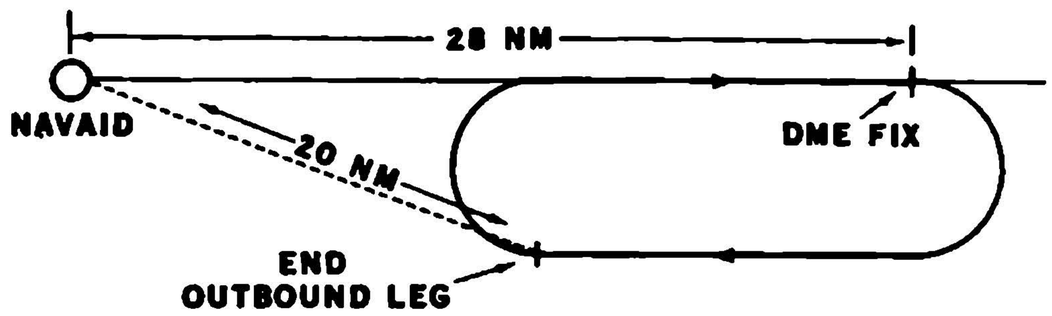
Example:

When the inbound course is *toward* the navaid and the fix distance is 10 NM, and the leg length is 5 NM, then the end of the outbound leg will be reached when the odometer reads 15 NM.



Example:

When the inbound course is *away* from the navaid and the fix distance is 28 NM and the leg length is 8NM, then the end of the outbound leg will be reached when the odometer reads 20 NM.



(6) PILOT ACTION

(a) Cross holding fix initially at or below maximum holding airspeed. Effect speed reduction within 3 minutes prior to estimated initial time over the holding fix.

HOLDING (Con't)

(b) Make all turns during entry and while holding at : (1) 3° per second, or (2) 30° bank angle, or (3) 25° bank angle provided a flight director system is used; whichever requires the least bank angle.

(c) Compensate for known effect of wind, except when turning.

(d) Determine entry turn from aircraft heading upon arrival at the holding fix. Plus or minus 5° in heading is considered to be within allowable good operating limits for determining entry.

(e) Advise ATC immediately if any increased airspeed is necessary due to turbulence or if unable to accomplish any part of the holding procedures.

(7) **NONSTANDARD HOLDING PATTERN**

Fix end and outbound end turns are made to the left. Entry procedures to a nonstandard pattern are oriented in relation to the 70° line on the holding side just as in the standard pattern.

6. When holding at a fix and instructions are received specifying the time of departure from the fix, the pilot should adjust his flight path within the limits of the established holding pattern in order to leave the fix at the exact time specified. After departing the holding fix, normal speed is to be resumed with respect to other governing speed requirements such as terminal area speed limits, specific ATC requests, etc. When the fix is associated with an instrument approach ,a procedure turn need not be executed since aircraft holding may proceed inbound on final approach directly from the holding pattern when approach clearance is received.

7. RADAR SURVEILLANCE

a. Whenever aircraft are held at an arrival holding pattern which is within an ATC facility's radar coverage, radar surveillance of the holding pattern airspace area, as depicted on the radar display, will usually be provided.

b. The purpose of this service is that ATC will attempt to detect holding aircraft that may stray from the protected holding pattern airspace and those detected will be assisted to return to the holding pattern.

c. It is to be noted that many factors could prevent ATC from providing this additional service, such as workload, number of radar targets, precipitation, ground clutter and radar system capability. These circumstances may make it unfeasible to maintain aircraft radar identification or detect aircraft straying from the holding pattern airspace area. Therefore, the provision of this service is entirely dependent upon whether ATC believes it is in a position to provide it and does not relieve pilots of their responsibilities of adhering to an accepted ATC clearance.

AIR TRAFFIC CONTROL RADAR BEACO SYSTEM (ATCRBS)

1. GENERAL

a. Air Traffic Control Radar Beacon Syst (ATCRBS) is similar to and compatible w military coded radar beacon equipment (Mark (SIF)). Civil Mode A is identical to milit Mode 3.

b. Civil and military transponders except Basic M X, should be adjusted to the "on" or normal o ating position as late as practicable prior to t off and to "off" or "standby" as soon as practic after completing landing roll unless the cha to "standby" has been accomplished previo at the request of ATC.

c. Basic Mark X (IFF) equipment should not operated except in emergency or at ATC requ ATC will not normally request Basic Mark (IFF) transponder operation.

d. When filing a domestic IFR flight plan for fl in an aircraft equipped with a radar beacon tr ponder, DME equipment, or a combination of b the pilot shall identify equipment capability adding a suffix to the identification, preceded a slant, i.e.:

A12346/X (Transponder, no code)
V23457/T (Transponder, with code)
N1256/D (DME)
R39851/L (DME and transponder, no code)
AA409/B (DME and transponder, with cod

NOTE.—The suffix is not to be transmitted by radi part of the aircraft identification.

e. If entering a U.S. domestic control area from side the U.S., the pilot should advise on first r contact with a U.S. air traffic control center such equipment is available by adding "trans der" or "no code transponder" as appropriate the aircraft identification.

f. The pilot of a military flight operating on a M other than Mode A/3 should adjust his trans der to reply simultaneously on the appropr Mode A/3 code as set forth herein.

g. Under no circumstances should the pilot of a aircraft operate his transponder on Code 00.

2. INSTRUMENT FLIGHT RULES (IFR) FLIGHT PL

a. Adjust transponder to reply on the Mode code specified by ATC. The transponder shal operated only as specifically directed by A Except as may be required in an emergency, para. 5) when a flight has been assigned a c it should remain on that code until further vised by ATC or until landing roll is complete destination, at which time the transponder sh be placed in "standby" position.

b. If the pilot cancels his IFR flight plan prio reaching the terminal area of his destination

ATC RADAR BEACON SYSTEM (ATCRBS) (Con't)

should adjust his transponder to Code 06 or 07 according to the instructions below for VFR flight.

3. VISUAL FLIGHT RULES (VFR)

a. Adjust transponder to reply on the appropriate Mode A/3 code as indicated below, unless otherwise advised by ATC.

(1) Code 06—for operation below Flight Level 240.

(2) Code 07—for operation at or above Flight Level 240.

NOTE.—Code 06 should be used when climbing to Flight Level 240 or above until leaving 23,000 feet MSL. Code 07 should then be dialed in. When descending from Flight Level 240 or above, Code 06 should again be used when leaving Flight Level 240.

4. SPECIAL MILITARY OPERATIONS

a. Pilots of NORAD interceptor aircraft on air defense missions not under ATC jurisdiction will adjust their transponders to reply on MODE A/3 Code 00.

NOTE.—Pilots of NORAD/ADC and SAC target/strike aircraft operating in accordance with an approved ALTRV need not comply with the code assignments in paragraphs 2, 3, or 4 above on that portion of the route specified in the approved ALTRV. ATC retains the prerogative, however, to instruct the pilots of these flights to operate the radar beacon transponder on the appropriate ATC code whenever safety dictates.

5. EMERGENCY OPERATION

a. When an emergency occurs, the pilot of an aircraft equipped with a coded radar beacon transponder, who desires to alert a ground radar facility to his emergency condition and who cannot establish communications without delay with an air traffic control facility may adjust his transponder to reply on Mode A/3, Code 77.

b. The pilot should understand that he may not be within a radar coverage area and that, even if he is, certain radar facilities are not yet equipped to automatically recognize Code 77 as an emergency signal. Therefore, he should establish radio communications with an air traffic control facility as soon as possible.

6. RADAR BEACON PHRASEOLOGY

a. Air traffic controllers, both civil and military, will use the following phraseology when referring to operation of the Air Traffic Control Radar Beacon System (ATCRBS)/Mark X IFF (SIF):

SQUAWK ALPHA/THREE CODE (number)—Operate radar beacon transponder on designated mode and code. (Transponder has not been operating on Mode A/3.)

SQUAWK CODE (number)—Operate transponder on a different code. (Transponder is already operating on a previously specified mode and code.)

SQUAWK IDENT—Engage the "IDENT" feature (military I/P) of the transponder.

SQUAWK ALPHA/THREE CODE (number) AND IDENT—Operate transponder on specified mode and code and engage the "IDENT" feature. (Transponder has not been operating on Mode A/3.)

SQUAWK CODE (number) and IDENT—Operate transponder on a different code and "IDENT." (Transponder is already operating on a previously specified mode and code.)

SQUAWK STANDBY—Switch transponder to standby position.

SQUAWK LOW/NORMAL—Operate transponder on low or normal sensitivity as specified. Transponder is operated in "NORMAL" position unless ATC specified "LOW" ("ON" is used instead of "NORMAL" as a master control label on some types of transponders.)

STOP SQUAWK (mode in use)—Switch off specified mode (used only when more than one mode may be in operation).

STOP SQUAWK—Switch off transponder.

SQUAWK MAYDAY—Operate transponder in the emergency position. (Mode A Code 77 for civil transponder. Mode 3 Code 77 and/or emergency feature for military transponder.

CHANGEOVER POINTS

1. These points are established on VOR airways in order that pilots will not continue to use the radio guidance display from one facility in the same airspace that other aircraft are using radial guidance from a different facility. These points are based on signal coverage provided by each respective VOR along direct airway segments. The changeover point symbol, as depicted on the En Route Charts, indicates the location in nautical miles between two VOR's along a direct Victor airway at which the aircraft receiver should be tuned to the station ahead.

2. Pilots operating via the Low Altitude Victor Airways System will obtain track guidance by reference to the closest VHF aid forming the airway route segment, except when reference to a specific aid is indicated by a radio changeover point on En Route Charts.

DIRECTIONAL REPORTING

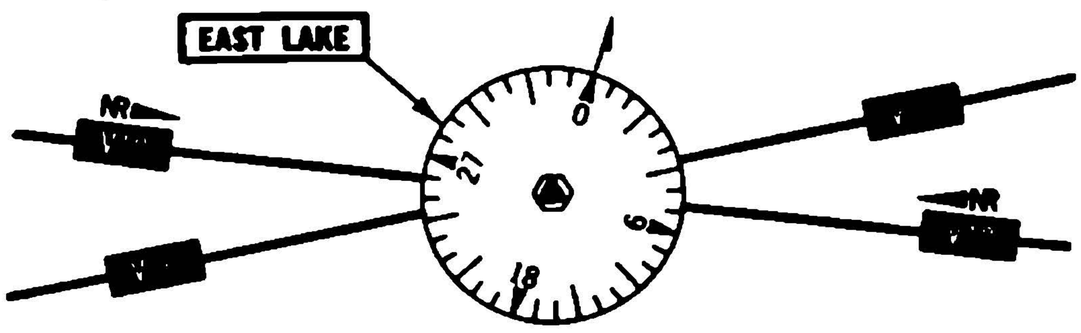
1. Some compulsory reporting points have been designated as applicable only to specific airways and/or directions of flight. These reporting points will be considered as noncompulsory for the other airways and/or directions of flight. As such, there will be times when a controller will, of necessity, request a position report on the noncompulsory portion. However, this will relieve the undue burden on both the pilot and controller as position reports will be required only as necessary for control purposes. The

DIRECTIONAL REPORTING (Con't)

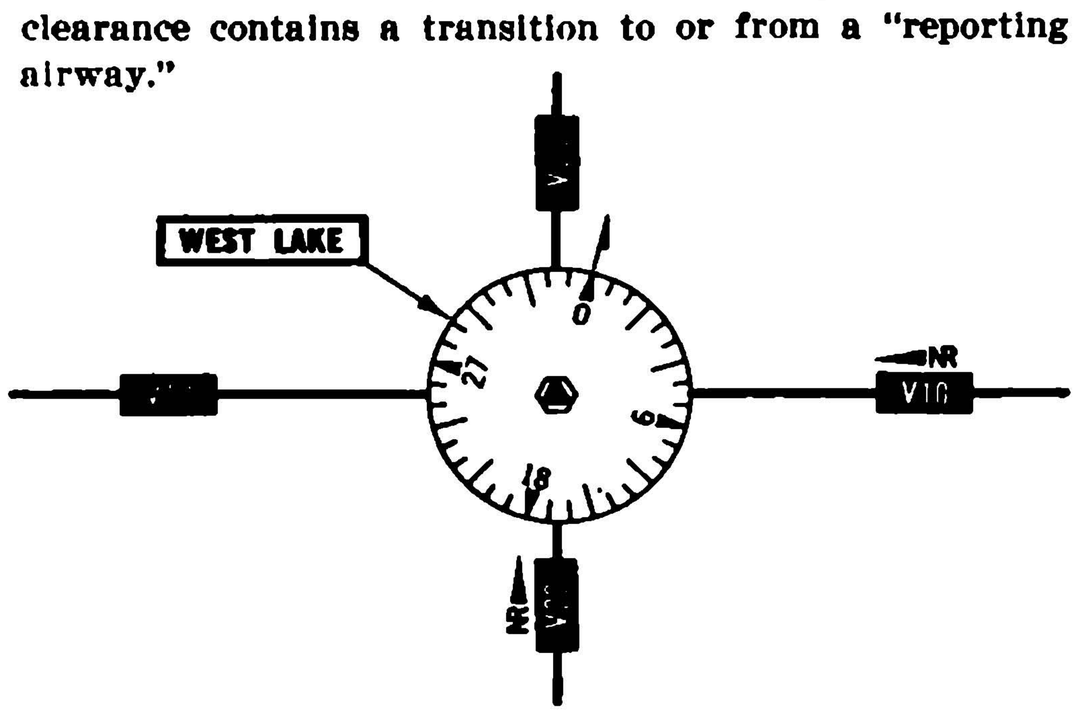
fact that a reporting point is designated as "directional" does not relieve the pilot of reporting his time and altitude/flight level upon reaching it when it is used as a clearance limit or holding fix.

2. The symbol NR► will be used on Coast and Geodetic Survey and other government aeronautical charts to indicate reporting "Not Required" at the next reporting point unless at that reporting point a transition is made to a "reporting airway." Upon crossing a directional reporting point, a pilot shall report his position if his clearance contains a transition from a non-reporting airway to a reporting airway or from a reporting airway to a non-reporting airway at that reporting point. There are instances where two or more airways utilize the same VOR radial and a position report is not required from aircraft on one or more of these airways but is required from aircraft cleared via the other airway/s; therefore, the symbol is shown in conjunction with the specific airways designator/s to which it applies.
3. The directional requirement applies only to aircraft en route via airways at the reporting point. Aircraft crossing the reporting point, on a direct flight not via airways, shall report the fix. In addition, an aircraft entering or leaving an airway on a direct flight at that reporting point shall report the fix.

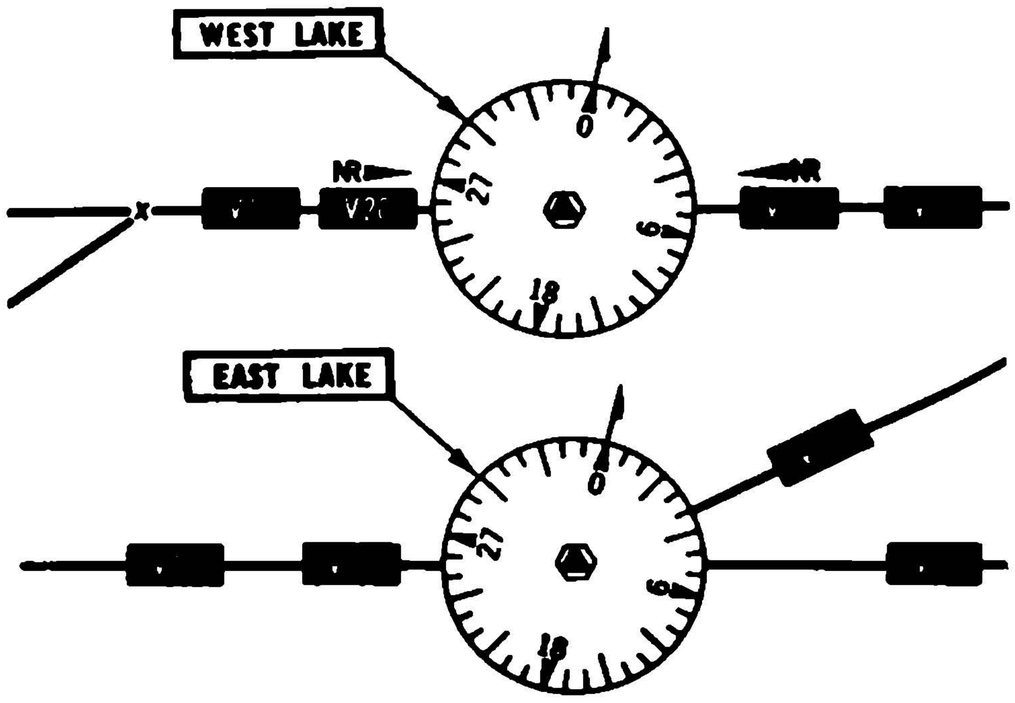
Examples:



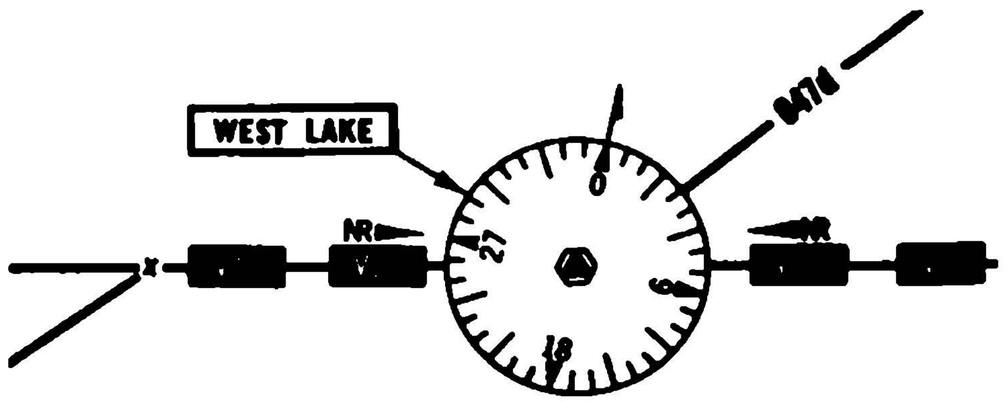
Aircraft proceeding Victor 10 do not report East Lake as the reporting symbol indicates it's not a "reporting airway." The absence of a reporting symbol for Victor 20 denotes it as a "reporting airway" which indicates that aircraft proceeding Victor 20 must report East Lake. Aircraft proceeding Victor 10, East Lake, Victor 20 *or* Victor 20 East Lake, Victor 10 shall report as their clearance contains a transition to or from a "reporting airway."



Eastbound aircraft on Victor 10 report as the "Not Required" in this instance is for westbound aircraft only. The same principle applies to southbound a northbound aircraft on Victor 20. However, an a craft proceeding northbound on Victor 20 thence ea bound on Victor 10 would report as a transition is be made to a "reporting airway"; aircraft proceeding we bound on Victor 10 thence northbound Victor 20 wo not report as the transition is being made from a "n reporting airway" to another "non-reporting airway.



This is an example of differing requirements for airways utilizing the same VOR radial. Aircraft clea via Victor 10 report West Lake but aircraft cleared Victor 20 would not. All aircraft report East Lake.



The aircraft on course 047d is a direct off-airw flight and would report West Lake. An aircraft ceeding eastbound or westbound to West Lake the via the 047d radial shall report West Lake as a tra tion is being made to a direct course, a situation ide cal to a "reporting airway."

AIRCRAFT CLIMBING/DESCENDING

1. During any phase of flight, pilots are requested adhere to the following procedures whenever cle by ATC to descend or climb to an altitude or fl level.
   a. Unless the ATC clearance requires otherwise, gin descent or climb promptly on acknowle ment of the clearance; and
   b. If an altitude change of 1,000 feet or less is quired, descend or climb at a rate of not m than 500 feet per minute; or
   c. If an altitude change of more than 1,000 fee required, descend or climb as rapidly as prac able to 1,000 feet above or below the assig altitude and then at a rate of not more than

AIRCRAFT CLIMBING/DESCENDING (Con't)

feet per minute until the assigned altitude is reached.

NOTE.—Pilots of military aircraft should use as a minimum the recommended climb and descent rates contained in the aircraft operating handbook.

. Information is issued to pilots of IFR aircraft whenever less than the applicable minimum time separation between such aircraft will exist, and one aircraft is cleared to climb/descend in accordance with VFR through the altitude of the other. Traffic information is also issued at other times when deemed necessary by the controller or requested by the pilot.

MILITARY CLIMB CORRIDOR RESTRICTED AIRSPACE

ATC facilities apply the following procedures when aircraft are operating on an IFR clearance (including those cleared by ATC to maintain VFR conditions on top) via a route which lies within joint-use or military climb corridor restricted airspace.

a. The ATC facility controlling an aircraft immediately before it would enter the restricted airspace will coordinate as necessary with the ATC facility designated as the controlling facility or with the using agency to obtain permission for the aircraft to operate in the restricted airspace.

b. If permission is obtained, the ATC facility will allow the aircraft to operate in the restricted airspace without issuing specific clearance for it to do so.

c. If permission cannot be obtained, the ATC facility will issue an amended clearance so the aircraft will avoid the restricted airspace.

Note that a, b, c above apply only to joint-use and military climb corridor restricted airspace and not to prohibited and nonjoint-use airspace. For the latter categories, the ATC facility will issue a clearance so the aircraft will avoid the restricted airspace unless it is on an approved altitude reservation mission or has obtained its own permission to operate in the airspace and so informs the controlling facility.

Restricted airspace is depicted on the Flight Information Publication, En Route Chart appropriate for use at the altitude or flight level being flown. For joint-use and military climb corridor restricted airspace, these charts show the name of the ATC facility designated as the controlling facility or the name of the using agency. For prohibited and nonjoint-use restricted airspace, the phrase "NO A/G" is shown.

RADAR ASSISTANCE TO VFR AIRCRAFT

. Radar equipped FAA Air Traffic Control facilities provide assistance and navigation service to VFR aircraft, provided such aircraft can communicate with the facility, are within radar coverage, and can be radar identified. Radar navigation assistance (vectors) may be provided VFR pilots when:

a. The pilot requests;

b. The controller suggests and the pilot agrees;

c. Special programs have been established which specify locations and special VFR service is advertised; or,

d. When air safety requires in the judgement of the controller.

2. Pilots operating in accordance with Visual Flight Rules and not equipped or trained for IFR flight should use caution in requesting radar assistance if such assistance may result in flight in IFR weather conditions, either intentionally or by accident. In many cases, the radar controller will be unable to determine if flight into instrument conditions will result from his instructions. Furthermore, although the radar controller may be able to provide separation from other traffic and navigational guidance to an airport or other suitable location, the *job of flying the aircraft safely remains with the pilot.* Experience has shown that many pilots cannot maintain control of their aircraft when clouds or other reduced visibility conditions are encountered.

3. To avoid hazards arising from VFR flights being radar vectored into IFR weather conditions, pilots in difficulty should observe the following:

a. If an alternate course of action is available which will permit flight in VFR weather conditions, pilots not instrument rated or operating aircraft not equipped for IFR flight should choose the alternative rather than request radar approach or letdown in IFR weather conditions; or

b. If the pilot is not instrument rated and no alternate course of action is available he should so advise the radar facility and "declare an emergency". The pilot must keep the controller advised of the weather conditions in which the aircraft is operating and along its course ahead. Assistance will be provided on the basis that the navigational guidance information issued is advisory in nature.

c. If the pilot is instrument rated and the aircraft is instrument equipped, the pilot should so indicate by filing an instrument flight plan. Assistance will be provided on the basis that the flight can operate safely in IFR weather conditions.

4. Pilots should clearly understand that authorization to proceed in accordance with such radar navigational assistance does not constitute authorization for the pilot to violate the Federal Aviation Regulations.

LAKE, ISLAND, AND MOUNTAIN REPORTING SERVICE

1. Selected Flight Service Stations provide flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.
2. Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface," "Overlake," etc., are indicated on charts published in the Airman's Guide. To obtain this service, contact the FSS by telephone or radio giving present position, type aircraft, altitude, indicated airspeed, proposed route of flight, and mainland estimate.
3. After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.

COMMUNICATIONS

1. POSITION REPORTING

a. The safety and effectiveness of traffic control depends to a large extent on accurate position reporting. In order to provide the proper separation and expedite aircraft movements, Air Traffic Control must be able to make accurate estimates of the progress of every aircraft operating on an IFR flight plan.

b. When a position report is to be made over a VOR radio facility, the time reported should be the time at which the first complete reversal of the "to-from" indicator is accomplished.

c. When a position report is made over a facility by means of an airborne ADF, the time reported should be the time at which the indicator makes a complete reversal.

d. When an aural or light-panel indication is used to determine the time of passing a reporting point, such as a fan marker, "Z" marker, cone of silence or intersection of range courses, the time should be noted when the signal is first received and again when it ceases. The mean of the two times should then be taken as the actual time over the fix. If position is given with respect to distance and direction from a reporting point, the distance and direction should be computed as accurately as possible.

e. Pilots are required to maintain a continuous listening watch on the appropriate frequency and furnish position reports as indicated by symbol on En Route Charts.

f. The compulsory reporting point symbol is the solid triangle ( ); the "on request" reporting point being an open triangle ( ). Reports over an "on request" reporting point are only necessary when requested by ATC.

(1) **Flights along airways/routes**—A position repo required by all flights regardless of alti over each compulsory reporting point a the route being flown, except where other indicated by a "Not Required" sy This includes flights operating in accord with an ATC clearance specifying "VFR ditions on top."

NOTE.—In Alaska some position reports are required when operating below 15,200′ MSL. These location shown on the en route charts by a circled letter leadered to the reporting point: This procedure not apply to flights operating on an altitude assign of "VFR-on-top."

(2) **Flights Along a Direct Route**—Regardless o altitude being flown, including flights op ing in accordance with an ATC clearance ifying "VFR conditions-on-top," pilots report over each reporting point used o flight plan to define the route of flight.

g. Position reports should include the follo items: (1) Identification, (2) Position, (3) (4) Altitude, (5) Type of flight plan (not requir IFR position reports made direct to ARTC Ce or approach control), (6) ETA over next repo point, (7) *The name only of the next succe reporting point along the route of flight*, an pertinent remarks.

Example:

An aircraft operating along Victor Airwa between Pittsburgh and Minneapolis w make the following report when over I field, Mich.: NOVEMBER NINER ONE XRAY OVER LITCHFIELD FIVE AT EIGHT THOUSAND INSTRUM FLIGHT PLAN ESTIMATING PULL ONE FOUR ONE EIGHT *MILWAU*. A corrected estimate should be forwarde Air Traffic Control any time it become parent that an estimate as previously mitted, is in error in excess of *three* mi

h. The following reports should be made to AT FSS facilities without request:

(1) The time and altitude/flight level reach holding fix or point to which cleared.

(2) When vacating any previously assigned tude/flight level for a newly assigned tude/flight level.

(3) When leaving any assigned holding fi point.

(4) When leaving final approach fix inboun final approach .

(5) When an approach has been missed. (Re clearance for specific action, i.e., to alte airport, another approach, etc.)

i. Navigation or position reports will not norm be required by ATC with reference to aids established for use in the structure in which ation is conducted, except as may be essentia terminal area transition purposes.

COMMUNICATIONS (Con't)

j. Pilots encountering weather conditions which have not been forecast, or hazardous conditions which have been forecast, shall forward a report of such weather to Air Traffic Control. The reporting of unanticipated weather or hazardous conditions may be of importance to the safety of other aircraft proposing flight within the area.

k. **Position reporting in a radar environment:**

(1) Pilots of radar identified aircraft which will remain under radar surveillance may be authorized to discontinue position reports over fixes designated as compulsory reporting points. The controller will grant this authorization using the phraseology "OMIT POSITION REPORTS."

(2) When authorized to omit position reports, the controller, at the time radar service is terminated or at his discretion will issue instructions to resume normal position reporting using the phraseology "RESUME NORMAL POSITION REPORTING."

(3) Monitor normal air traffic control communications frequencies. On initial contact when changing frequencies, pilots should comply with standard contact procedures described in Transfer of Control under 2. DIRECT COMMUNICATIONS — CONTROLLERS/PILOTS.

(4) Pilots of aircraft operating below Flight Level 240, who have been advised to omit position reports, will be furnished the appropriate altimeter setting when passing compulsory reporting points as observed by radar.

2. DIRECT COMMUNICATIONS— CONTROLLERS/PILOTS

a. Air Traffic Control facilities are equipped with radio transmitters and receivers for direct communications with IFR air traffic on certain VHF, UHF and L/MF frequencies. The frequencies normally used are published on appropriate en route charts. IFR operations are expedited through the use of direct communications; however, to reduce frequency congestion, pilots are requested to use these frequencies strictly for communications pertinent to the control of IFR aircraft. Flight plan filing, en route weather, forecasts and similar data should be requested through Flight Service Stations, company radio or appropriate military facilities capable of performing these services.

(1) Center Sector Discrete Frequency—an ARTCC is divided into sectors; each sector is handled by one Controller, or team of controllers, and has its own sector discrete frequency. As an IFR flight progresses from one sector to an other, the pilot is requested to change to the appropriate sector discrete frequency.

(2) Center Area Discrete Frequency—A frequency used as back-up for the center sector frequencies and is available to each sector in the ARTCC. It is always monitored by at least one controller who can quickly put an IFR flight in radio contact with the appropriate sector.

b. **Transfer of Control**

(1) Air traffic controllers may utilize direct or indirect communications media to require a pilot to contact an adjacent sector within a facility, or an adjacent facility, whenever necessary to effect transfer of control.

(2) The following phraseology will be used to effect transfer of control: "(aircraft identification) CONTACT (facility name) ON (frequency) (time or point), OVER."

Examples:

"BEECHCRAFT TWO ONE BRAVO, CONTACT INDIANAPOLIS CENTER ON ONE TWO FIVE POINT ONE OVER."

"AIR FORCE FIVE FOUR THREE TWO ONE CONTACT ATLANTA CENTER ON THREE ONE SEVEN POINT SIX OR ONE THREE FIVE POINT SIX AT ONE THREE FIVE ZERO, OVER."

"EASTERN FIVE ZERO TWO, CONTACT WASHINGTON CENTER ON ONE TWO THREE POINT SEVEN AT ROANOKE, OVER."

(3) The following phraseologies should be utilized by pilots for establishing contact with the designated facility:

(a) When contact is to be followed by a position report:

"(name) CENTER, (THIS IS) (aircraft identification), (position), OVER."

A typical example of the exchange of communications would be:

"WASHINGTON CENTER, (THIS IS) EASTERN FIVE ZERO TWO, ROANOKE, OVER."
"EASTERN FIVE ZERO TWO, (THIS IS) WASHINGTON CENTER, GO AHEAD."

"EASTERN FIVE ZERO TWO, (OVER) ROANOKE THREE SIX (AT) ONE NINER THOUSAND, (ESTIMATING) MONTEBELLO FIVE TWO, GORDONSVILLE, (OVER)."

"EASTERN FIVE ZERO TWO, ROGER."

COMMUNICATIONS (Con't)

(b) When contact is to be made at a specific time or point and no position report is required:

"(name) CENTER, (THIS IS) (aircraft identification), ESTIMATING (reporting point) (time) AT (altitude/flight level), OVER."
"(name) CENTER, (THIS IS) (aircraft identification), ESTIMATING (reporting point) (time) AT (altitude/flight level) CLIMBING/DESCENDING TO (altitude/flight level) OVER."

A typical example of exchange of communications would be:

"CHICAGO CENTER, (THIS IS) BEECHCRAFT ONE TWO THREE FOUR, ESTIMATING CHICAGO HEIGHTS FOUR TWO, AT NINER THOUSAND, DESCENDING TO FIVE THOUSAND, OVER."
"BEECHCRAFT ONE TWO THREE FOUR (THIS IS) CHICAGO CENTER, ROGER."

c. It should be noted that whenever contact with ATC is to be followed immediately by a position report, the name of the reporting point should be included in the contact. This will alert the controller that such information is forthcoming. When a position report is not required, an estimate for the next reporting point, the actual altitude and, if appropriate, the altitude to which climb or descent is being made, should be included in the initial contact. The controller will simply acknowledge that contact has been established, or, when required, issue appropriate control instructions.

NOTE.—Federal Aviation Regulations require the pilo maintain a continuous watch on the appropriate r frequencies; therefore, a pilot receiving a clearance as dicated above, should remain on the frequency he is *until* the time or point to change to the newly assi frequency.

NOTE.—If two-way communications cannot be establi as indicated in Paragraph b(1), a pilot should attempt t contact the transferring controller for the assignmen an alternate frequency or other instructions. If, how communications are not re-established, the pilot sh then contact the appropriate communications mediun indicated in the following Frequency Use Plan.

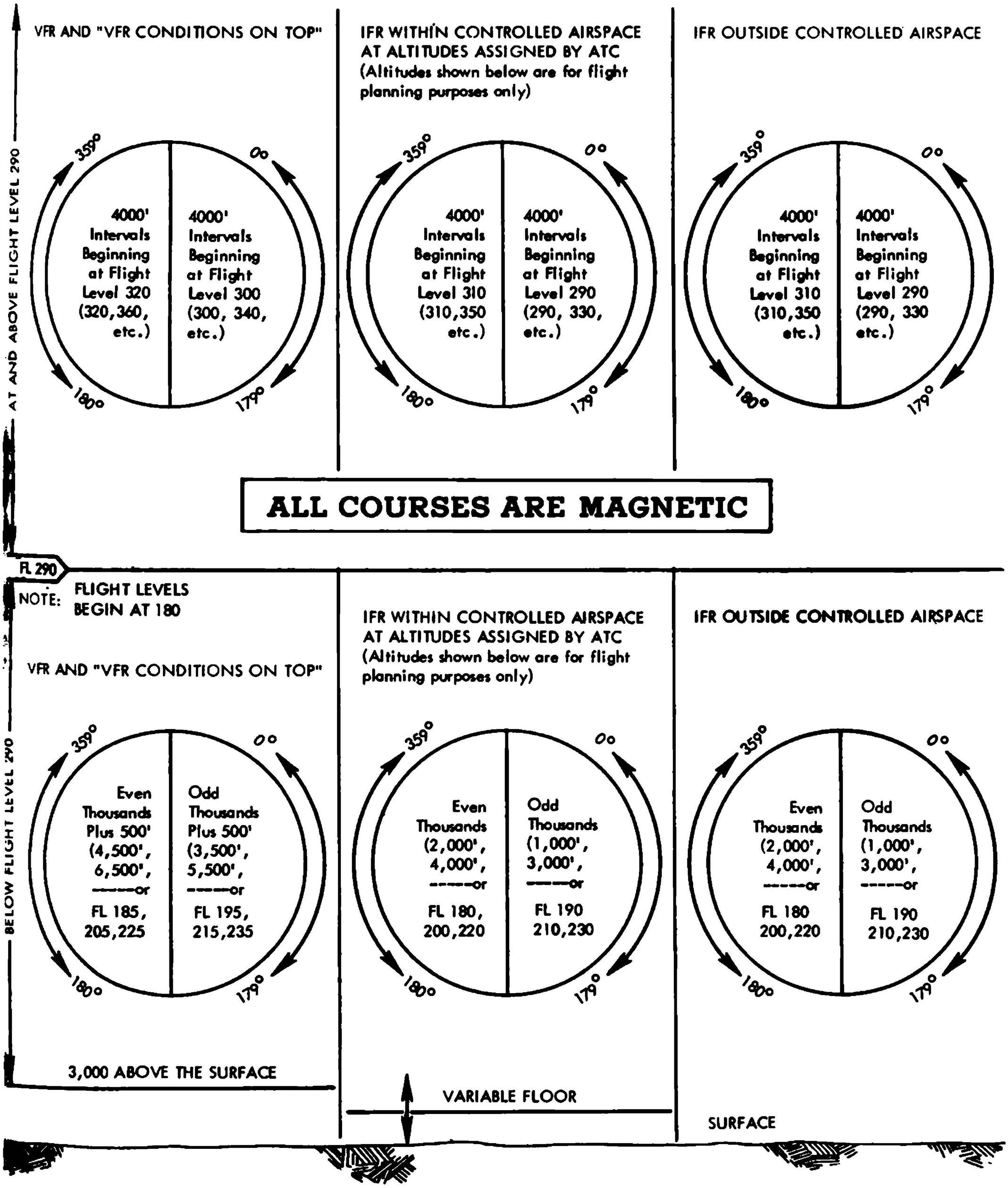
3. FREQUENCY USE PLAN

a. The following table provides a plan by w pilots may determine the frequency they wil expected to use, when the sector discrete frequ (Priority One) has been specified, in effec transfer of control, and two-way communicat cannot be established.

Priority	**First**
Civil/Military VHF	Sector Discrete Frequ as assigned.
Military UHF	Sector Discrete Frequ as assigned.
Priority	**Second**
Civil/Military VHF	Below FL 240–Center A Discrete Frequency (if propriate). FL 240 above—FSS–126.7.
Military UHF	FSS–272.7 (at all altitud
Priority	**Third**
Civil/Military VHF	Air carrier-company ra if unable, FSS–126.7 (eral Aviation and Mili FSS–126.7, 122.1/122.2 VOR
Military UHF	FSS–255.4

CRUISING ALTITUDES

FAR PARTS 91.109,91.121



ARRIVAL

VFR ADVISORY INFORMATION

1. VFR advisory information is provided by numerous radar and nonradar *Approach Control* facilities to those pilots intending to land at an airport served by an approach control tower. This information includes: wind, runway, traffic and NOTAM information.
2. Such information will be furnished upon initial contact with concerned approach control facility. The pilot will be requested to change to the *tower* frequency at a predetermined time or point, to receive further landing information.
3. Where available, use of this procedure will not hinder the operation of VFR flights by requiring excessive spacing between aircraft or devious routing. Radio contact points will be based on time or distance rather than on landmarks.
4. Compliance with this procedure is not mandatory but pilot participation is encouraged.

AIRPORT ADVISORY SERVICE (NONRADAR)

1. Flight Service Stations (FSS) located at airports where there are no control towers in operation provide advisory information to arriving and departing aircraft. This service is offered for safety purposes; traffic control is not exercised.
2. Arriving and departing radio-equipped VFR aircraft are required to maintain radio contact with the FSS while operating within a 5 mile radius of those stations that are properly depicted on Sectional or World Aeronautical Charts in accordance with F.A.R. 91.89. Aircraft operating IFR will maintain radio contact with the facility specified by ATC. Receiver-only-equipped aircraft are required to maintain a listening watch on the airport advisory frequency—122.2 mc.
3. Airport advisories provide: wind direction and velocity, favored runway, altimeter setting, pertinent known traffic, Notices to Airmen, airport taxi routes, airport traffic patterns, and instrument approach procedures. These elements are varied so as to best serve the current traffic situation. Pilots using other than the favored runways should advise the FSS immediately.
4. Recommended phraseologies and communications procedures are as follows:

AIRCRAFT DEPARTING: When ready to taxi, the pilot should notify the station of his intentions. Except for scheduled air carriers or other frequ users of the airport, this information sh include not only the aircraft identification, also the aircraft type, location, type of fl planned (VFR or IFR), and destination.

Example:

Aircraft: GRAND FORKS RADIO, THIS COMANCHE SIX ONE THREE EIGHT, TERMINAL BUILDING RAMP, READY TAXI, VFR TO DULUTH, OVER.

Station: COMANCHE SIX ONE THREE EIG THIS IS GRAND FORKS RADIO, WI THREE TWO ZERO DEGREES AT TWO FI FAVORING RUNWAY THREE ONE, AI METER THREE ZERO ZERO ONE, TI ONE TWO TWO FIVE, CESSNA 0 SEVENTY MAKING TOUCH AND GO LA INGS ON RUNWAY THREE ONE.

NOTE.—The take-off time should be reported to the as soon as practicable. If the aircraft has limited ec ment and it is necessary to use the navigational featu the radio range immediately after take-off, advise the of this before shifting frequency from 122.2 to the range. such cases, advisories will be transmitted over both 1 and the range frequency.

AIRCRAFT ARRIVING: When operating VFR, a I should transmit position and altitude informa to the FSS when 15 miles from the airport.

Example:

Aircraft: GRAND FORKS RADIO, THIS TRI-PACER ONE SIX EIGHT NINI OVER KEY WEST, TWO THOUSAND, LA ING GRAND FORKS, OVER.

Station: TRI-PACER ONE SIX EIGHT NIN THIS IS GRAND FORKS RADIO, OVER I WEST AT TWO THOUSAND, WIND ONE F ZERO DEGREES AT ONE TWO, FAVOR RUNWAY ONE THREE, ALTIMETER T NINER EIGHT NINER, DC–3 TAKING RUNWAY ONE THREE, CESSNA ONE FO ON DOWNWIND LEG RUNWAY ONE THI MAKING TOUCH AND GO LANDINGS, MANCHE DEPARTED RUNWAY ONE THI AT ONE SIX PROCEEDING EASTBOU OVER.

NOTE.—Pilots should guard 122.2 mcs. until clear of runway after landing and report leaving the runwa the FSS.

RADAR TRAFFIC INFORMATION SERVICE

1. A service provided by radar air traffic control facilities. Pilots receiving this service are advised of any aircraft observed on the radar scope which, in the judgment of the controller, appears to constitute a potential conflict to the operation of their aircraft.
   a. **Purpose of the Service**—Radar Traffic Information Service is not intended to relieve the pilot of his responsibility for continual vigilance to see and avoid other aircraft. It is provided to aid him in his visual surveillance by calling to his attention a specific direction in which radar indicates possible conflicting traffic to exist. Pilots are reminded that the surveillance radar utilized by the controller does not provide altitude information.
   b. **Provision of the Service**—The provision of this service is not mandatory. Many factors, such as limitations of the radar, volume of traffic, controller workload and communications frequency congestion, could prevent the controller from providing this service. The controller possesses complete discretion for determining whether he is able to provide or continue to provide this service in a specific case. His reason against providing or continuing to provide the service in a particular case is not subject to question nor need it be communicated to the pilot. In other words, the provision of this service is entirely dependent upon whether the controller believes he is in a position to provide it, subject to the foregoing limitations:
      (1) Traffic information is routinely provided to all aircraft operating on IFR flight plans except when the pilot advises he does not desire the service.
      (2) Traffic information may be provided for flights not operating on IFR flight plans when requested by pilots of such flights.

   NOTE.—Participation by VFR pilots in formal programs implemented at certain terminal locations constitutes pilot request. This also applies to participating pilots at those locations where arriving VFR flights are encouraged to make their first contact with the tower on the approach control frequency.

   c. **Issuance of Traffic Information**—Traffic information will include the following concerning the target constituting traffic:
      (1) Azimuth from the aircraft, in terms of the twelve hour clock;
      (2) Distance from the aircraft in nautical miles and;
      (3) Direction in which the target is proceeding.
      (4) Type aircraft and altitude (if known).

      Example:

      Traffic 10 o'clock, 3 miles, west-bound, (type aircraft and altitude, if known). The pilot may, upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller.

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

1. This service has been implemented at certain terminal locations. Pilot participation is urged but is not mandatory.
2. The purpose of this service is to adjust the flow of arrival VFR and IFR aircraft into the traffic pattern in a safe and orderly manner. To participate, pilots of VFR aircraft should initiate radio contact with approach control when reaching the perimeter of the area in which the VFR services are provided. Approach control then provides the pilot with wind direction and velocity, runway in use, traffic information, routings, etc., as necessary, for proper sequencing with other traffic en route to the airport.
3. After radar contact is established, the pilot is directed to fly specific headings either to join an appropriate leg of the traffic pattern or to position the flight behind the preceding aircraft in the landing sequence. When a flight is positioned behind the preceding aircraft and the pilot reports having that aircraft in sight, he will be directed to follow it. Upon being told to contact the tower, radar service will end. A landing sequence number will thereafter be assigned by the tower.
4. Pilots of departing VFR aircraft desiring Traffic Information Service should request the service on initial contact with ground control and advise proposed direction of flight. Following take-off, the tower will advise when to contact departure control and the frequency to be used.

TERMINAL RADAR SERVICE
(An Evaluation of Terminal Area Positive Separation)

1. A service designed to provide segregation of controlled from uncontrolled aircraft around airport terminals. This is accomplished by establishing a special terminal radar service area for participating aircraft with airspace available below and above the area for use of nonparticipating aircraft.

AERONAUTICAL ADVISORY STATIONS (UNICOM)—122.8, 123.0 MC.

1. 122.8 mc. is assigned to airports *not* served by a control tower. Its use is limited to the necessities of safe and expeditious operation of private aircraft pertaining to runway and wind conditions, types of fuel available, weather, and dispatching. Secondarily, communications may be transmitted concerning ground transportation, food and lodging during transit.
2. 123.0 mc. is assigned to airport *served* by a control tower. Communications on this frequency are identical to those permitted on 122.8 mc., with the exception of information such as runway and wind conditions, weather, etc. which would be furnished by the tower. THIS SERVICE SHALL NOT BE USED FOR AIR TRAFFIC CONTROL PURPOSES.

AERONAUTICAL MULTICOM SERVICE 122.9 MC.

1. A mobile service used to provide communications essential to conduct of activities being performed by or directed from private aircraft.

Example:

Ground/air communications pertaining to agriculture, raching, conservation activities, forest fire fighting, aerial advertising and parachute jumping. THIS SERVICE SHALL NOT BE USED FOR AIR TRAFFIC CONTROL PURPOSES.

APPROACH CONTROL

1. Approach control is responsible for controlling all instrument flights terminating within its area of responsibility. Approach control may serve one or more airfields, and control is exercised primarily by direct pilot/controller communications. Prior to arriving at the destination radio facility, instructions will be received from ARTCC to contact on approach control.

a. Radar Approach Control

(1) Arriving aircraft are either cleared to an outer fix most appropriate to the route being flown with vertical separation and, if required, holding information or, when radar handoffs are effected between the ARTCC and approach control, or between two approach control facilities, aircraft are cleared to the airport or to a fix so located that the handoff will be completed prior to the time the aircraft reaches the fix. When radar handoffs are utilized, successive arriving flights may be handed off to approach control with radar separation in lieu of vertical separation. After release to approach control, aircraft are vectored to the appropriate final approach course (ILS, VOR, ADF, etc.). Radar vectors and altitude/flight levels will be issued as required for spacing and separating aircraft. *Therefore, pilots must not deviate from the headings issued by approach control.* The radar vector issued for interception of the final approach course will be such as to enable the pilot to establish his aircraft on the final approach course prior to reaching the approach fix. Aircraft will be cleared for approach at the time the final heading for interception of the final approach course is issued, or after the aircraft is established on the final approach course prior to passing the approach fix. When established on the final approach course, radar separation will be maintained and the pilot will be expected to complete the approach utilizing existing approach aids (ILS, radio beacons, etc.) as the primary means of navigation. Therefore, *pilots must not deviate from the normal final approach course unless a clearance to do so is recei from Air Traffic Control.* After passing approach fix (outer marker, radio range, e on final approach, aircraft are expected proceed direct to the airport and comp the approach or effect the missed appro procedure published for that airport.

(2) IFR aircraft may be descended to the m mum vectoring altitude and vectored to a p tion in the airport traffic pattern whene the ceiling is at least 500 feet above the m mum vectoring altitude and the visibility at least three miles. This procedure afford a more expeditious service to arriv aircraft and preclude unnecessary vecto to the final approach fix of a published ins ment approach procedure.

(3) With a "visual approach" clearance, the p operating on an IFR flight plan in VFR ditions may deviate from the prescribed strument approach procedure and proceed the airport with visual reference to the face. Radar service will be terminated w aircraft are told to contact the tower. tower will assign a landing sequence num

INSTRUMENT APPPROACH

1. GENERAL

a. Instrument approach procedures are depicted Coast and Geodetic Survey Approach and Land Charts. Air Traffic Control may suggest a spec instrument approach procedure to expedite tra This is usually accomplished by issuing a cl ance for the specific approach. If the pilot of aircraft does not desire such approach he may quest a different type of approach. However may be necessary for Air Traffic Control to w hold a clearance for the different approach u such time as traffic conditions permit. Under s circumstances the pilot of the approaching airc may accept the suggested approach or wait fo different approach. The omission of a specific t of approach in the clearance, "Cleared for proach," indicates to the pilot any approved t of approach may be used at his discretion he should begin descent to approach altitude soon as possible. Normally, traffic conditi require Air Traffic Control to issue a clearan specifying the type of approach. If the pilo involved in an emergency situation, he will given priority in the type of approach as may necessary under the circumstances.

b. If the pilot is not familiar with the specified proach procedure, Air Traffic Control should advised and the clearance will include detailed formation on the execution of the specified proach. When an approach involves a proced turn, the turn normally shall be executed wit a distance of ten miles from the facility. H ever, in order to provide adequate separation fr

INSTRUMENT APPROACH (Con't)

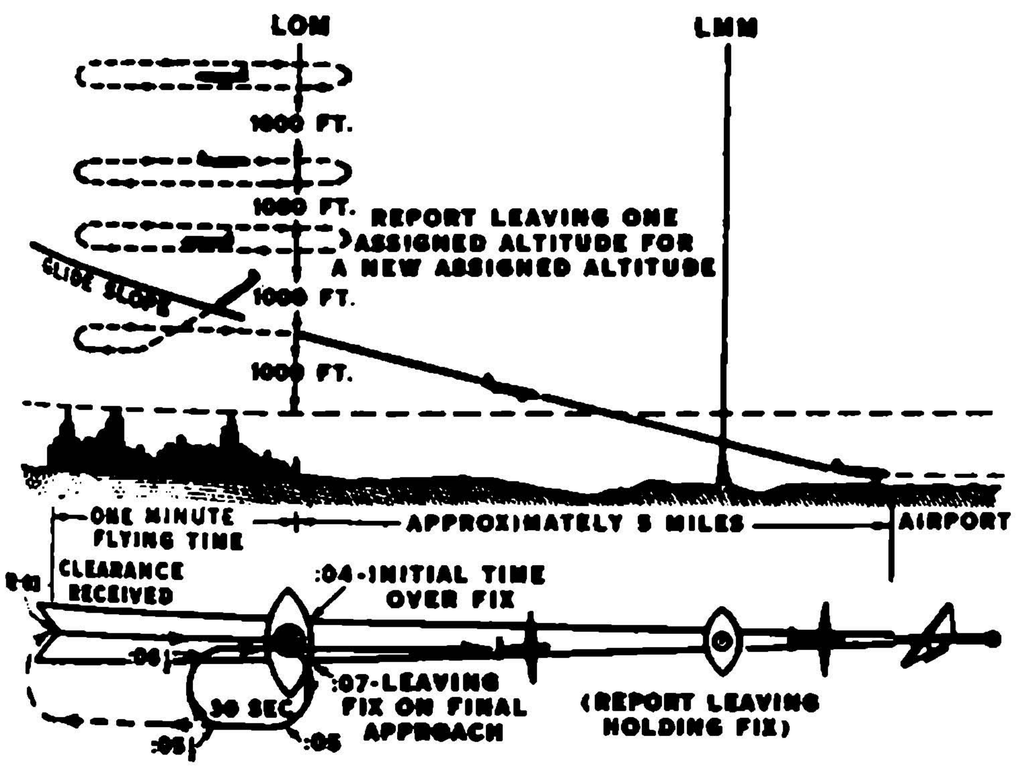
departing traffic, Air Traffic Control may specify the point at which the turn shall be executed (expressed in minutes or miles outbound from the facility) which will be consistent with the limitations of the specific approach procedure for the airport.

2. INSTRUMENT APPROACH FROM HOLDING PATTERN

a. Each pilot in an approach sequence will be given advance notice as to the time he should leave the holding point on approach to the airport. When a time to leave the holding point has been received, the pilot should adjust his flight path to leave the fix as closely as possible to the designated time.

Example:

The dotted line indicates a 1-minute holding pattern, the solid line indicates the aircraft flight path from the time clearance was received.



b. At 12:03 local time, in the example shown, a pilot holding, receives instructions to leave the fix inbound at 12:07. These instructions are received just as the pilot has completed turn at the outbound end of the holding pattern and is proceeding inbound towards the fix. Arriving back over the fix, the pilot notes that the time is 12:04 and that he has three minutes to lose in order to leave the fix at the assigned time. Since the time remaining is more than two minutes, the pilot plans to fly a race track pattern rather than a 360° turn, which would use up two minutes. The turns at the ends of the race track pattern will consume approximately two minutes. Three minutes to go, minus two minutes required for turns, leaves one minute for level flight. Since two portions of level flight will be required to get back to the fix inbound, the pilot halves the one minute remaining and plans to fly level for 30 seconds outbound before starting his turn back toward the fix on final approach. If the winds were negligible at flight altitude, this procedure would bring the pilot inbound across the fix precisely at the specified time of 12:07. However, if the pilot expected a headwind on final approach, he should shorten his 30 seconds outbound course somewhat, knowing that the wind will carry him away from the fix faster while outbound and decrease his ground speed while returning to the fix. On the other hand, if the pilot knew he would have a tailwind on final approach, he should lengthen his calculated 30-second outbound heading somewhat, knowing that the wind would tend to hold him closer to the fix while outbound and increase his ground speed while returning to the fix.

3. LANDING PRIORITY

a. A clearance for a specific type of approach (ILS, ADF, VOR or Straight-in Approach) to an aircraft operating on an IFR flight plan does not mean that landing priority will be given over other traffic. Traffic control towers handle all aircraft, regardless of the type of flight plan, on a "first-come, first-served" basis. Therefore, because of local traffic or runway in use, it may be necessary for the controller, in the interest of safety, to provide a different landing sequence. In any case, a landing sequence will be issued each aircraft as soon as possible to enable the pilot to properly adjust his flight path.

4. LANDING MINIMUMS

a. The minimum ceiling and visibility requirements for civil pilots making instrument approaches at civil airports are included on Standard Instrument Approach Procedures.

b. The following procedures are applicable to all arriving IFR civil aircraft conducting published instrument approaches.

c. When an official weather report is made available to the controller which indicates that weather conditions are below the minima published for the particular approach being executed or to be executed, ATC will:

(1) Issue the weather report to all arriving IFR aircraft.

(2) Advise pilots of other than military or scheduled air carrier aircraft that the reported weather is below the published minima and request such pilots to advise their intentions.

Example:

WEATHER (Weather Report). THIS IS BELOW PUBLISHED MINIMA FOR (Type of Approach) APPROACH. ADVISE INTENTIONS.

(3) Issue approach clearance, landing clearance or other clearances and/or instructions, as appropriate, in accordance with each pilot's stated intentions and the traffic situation.

INSTRUMENT APPROACH (Con't)

Each landing clearance shall be expressly qualified with the phrase "IF YOU HAVE LANDING MINIMA".

Example of Landing Clearance:

CLEARED TO LAND IF YOU HAVE LANDING MINIMA.

NOTE.—The foregoing procedures are predicated on the basis that: The Weather Bureau Report, RVR reading and/or runway visibility report, as appropriate, constitutes the official weather report, and the weather minima published for the particular approach on Instrument Approach Procedure Charts, as amended by NOTAMs, if any, are applicable. The pilot is governed by and will be observing the provisions, of Part 609.4/G/ Regulations of the Administrator.

5. MONITORING ILS

a. Communications should be established with the appropriate FAA control tower or with the FAA Flight Service Station, where there is no control tower, prior to starting an ILS approach. This is in order to receive advisory information as to the operation of the facility. It is also recommended that the aural signal of the ILS be monitored during an approach to assure continued reception and receipt of advisory information.

6. MISSED APPROACH

a. When a landing is not completed after an instrument approach, a pilot shall follow the prescribed missed approach procedure (unless an alternate missed approach procedure is specified by Air Traffic Control) and obtain further clearance from Air Traffic Control. The flight then may request clearance for another approach. Traffic permitting, an approach clearance may be issued immediately or the flight may be required to hold until clearance for approach can be issued. A pilot may, at any time, request clearance to an alternate airport.

RADAR MONITORING OF INSTRUMENT APPROACHES

1. When approaches are being monitored by radar, the radar advisories serve only as a secondary aid, since the pilot has selected the ILS or other navigational aid as the primary aid for the approach.
2. At FAA radar locations, all instrument approaches made on navigational aids whose final approach course from the final approach fix to the runway coincides with the Precision Approach Radar (PAR) course and whose final approach fix lies within the coverage of PAR will be monitored and radar advisories furnished to the pilot whenever the reported weather is below basic VFR minima (1000 and 3). This advisory information, derived from radar observations, includes the provision of advice on:
   a. The flight's position relative to the final appro fix and major obstructions.
   b. The distance above or below the prescribed gl path and/or the distance left or right of the p scribed final approach course when a flight ceeds the elevation and/or azimuth safety zo indicated on the PAR display.

      NOTE.—Altitude information is not tr mitted to aircraft executing other than an approach because the descent portions of s approaches do not coincide with the depi PAR glide path.

   c. The distance from "touchdown" each mile on f or, for flights executing other than an ILS proach, the distance from the end of the runv after passing the final approach fix, and
   d. A situation which, in the judgment of the cont ler, is likely to affect the safety of the flight.
3. Prior to starting final approach, the pilot will be vised of the frequency on which the advisories wil transmitted. This will normally be the ILS local voice channel. If, for any reason, radar adviso cannot be furnished, the pilot will be so advised.
4. Radar advisories will be terminated and the pilot advised when:
   a. The pilot reports the approach lights or the r way in sight, or
   b. The controller observes the aircraft to have reac a position approximately ½ mile from the appro end of the runway, whichever occurs first.

SPEED ADJUSTMENT OF ARRIVING AIRCRAFT

1. To avoid excessive vectoring in the establishment arrival sequences, pilots of radar-controlled arriv aircraft which are transitioning from en route to destination airport may be requested by ATC to just aircraft speeds in accordance with the followi
   a. All speed adjustment requests shall be expre in terms of knots and shall be predicated on i cated air speed (IAS).
   b. Speed adjustment procedures shall not be app to flights conducting published jet penetration
   c. Pilots complying with speed adjustment requ will be expected to maintain a speed within] or minus ten knots of the specified speed.
   d. Approach clearances supersede speed adjustn assignments and pilots are expected to effect th own speed adjustments, as necessary, to comp the approach. If it is determined by ATC t speed adjustment procedures are no longer quired prior to the issuance of an approach cl ance, the pilot of the aircraft concerned shall advised to resume normal speed.
   e. Unless prior concurrence in the use of a lo speed is obtained, speed adjustment requests

SPEED ADJUSTMENT (Con't)

an arriving flight to maintain a specified speed will be made in accordance with the following minima:

(1) To multi-engine turbojet and propeller-driven aircraft which are operating more than 30 nautical miles from destination airport:
A SPEED NOT LESS THAN 250 KNOTS IAS;

(2) To multi-engine turbo jet and propeller-driven aircraft which are operating 20 to 30 nautical miles from destination airport, and

(a) At or above 10,000' MSL:
A SPEED NOT LESS THAN 250 KNOTS IAS; or
(b) Below 10,000' MSL:
A SPEED NOT LESS THAN 200 KNOTS IAS;

(3) To multi-engine jet aircraft which are operating less than 20 nautical miles from destination airport:
A SPEED NOT LESS THAN 180 KNOTS IAS; or

(4) To multi-engine propeller-driven aircraft which are operating less than 20 nautical miles from destination airport:
A SPEED NOT LESS THAN 150 KNOTS IAS.

NOTE.--Controllers have been advised that utilization of the minimum speeds set forth above for propeller-driven aircraft will sometimes be impractical, since some aircraft in this category cruise at lower speeds and cannot attain the speeds specified.

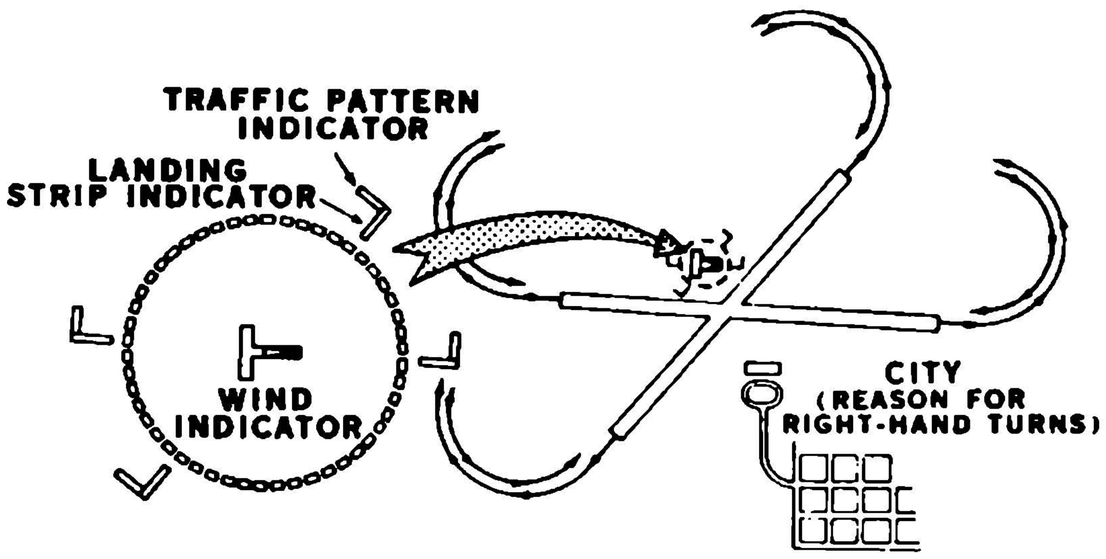
f. Speed adjustment of multi-engine propeller-driven aircraft which cannot attain the minimum speeds set forth above, or of single-engine aircraft, shall be accomplished by requesting such flights to, if practicable:
(1) Maintain a specified speed equivalent to that of the preceding/succeeding aircraft; or
(2) Increase or decrease speed utilizing increments of 10 knots or multiples thereof.

2. The pilots retain the perogative of rejecting the application of speed adjustment by ATC, if in his opinion, it will adversely affect the operating characteristics of the aircraft. In such cases, the pilot is expected to advise ATC of the speed that will be used.

LANDING

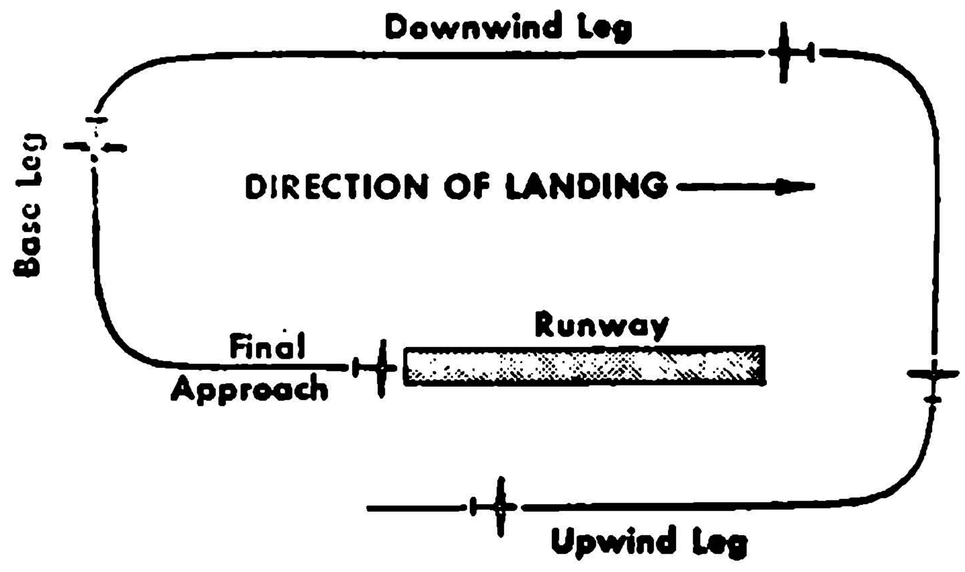
TRAFFIC PATTERN DIRECTION

1. The segmented circle system consists of the following components: A wind indicator (sock) will be found at the center of the circle. Associated with the wind indicator and also located at the center of the circle, is the landing direction indicator, which may be a tetrahedron or tee, either free swinging or set for a particular runway. Although appearing as a single unit, the L-shaped indicator located at various positions around the segmented circle or at the end of a runway actually consists of two parts. That portion of the L in alignment with or parallel to a runway is known as the landing strip indicator. The other section of the L running at a right angle to the runway is known as the traffic pattern indicator.



2. Preparatory to a landing, the pilot should concern himself with the indicator for the approach end of the runway to be used. If the pilot will mentally enlarge the indicator for the runway to be used, the base and final approach legs of the traffic pattern to be flown immediately become apparent. Similar treatment of the indicator at the departure end of the runway will clearly indicate the direction of turn to join the cross wind leg of the traffic pattern after takeoff.
3. A flashing amber light in the center of the segmented circle or on top the control tower or adjoining building indicates clockwise flow of traffic is in effect at that time and that right turns shall be made unl otherwise authorized by Air Traffic Control.
4. Right hand flow of traffic may also be shown by in cators located at either the segmented circle or e of the runway. A pilot may determine the direct of traffic flow by circling the airport at an altitu above the airport area.
5. At airports where traffic control is exercised by control tower, traffic and taxi patterns have b established to specify the desired flow of ground a air traffic operating on and in the vicinity of an a airport. If the traffic pattern is not known, foll other traffic unless otherwise advised. Control tow operators issue clearances or other information pilots as necessary for aircraft to generally foll the desired flight path (traffic patterns) when fly the airport traffic area/control zone and the prop taxi routes (taxi patterns) when operating on t ground.
6. The following terminology for the various com nents of a traffic pattern has been adopted as star ard for use by control towers and pilots:

STANDARD TRAFFIC PATTERN COMPONENTS



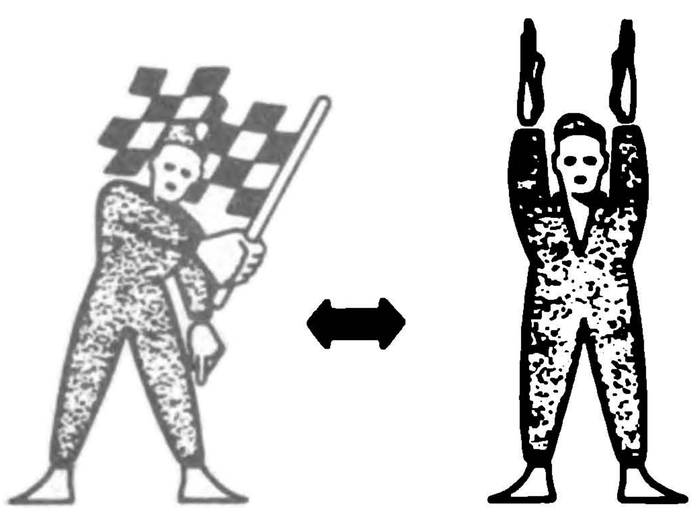
Upwind leg.	A flight path parallel to l landing runway in the rection of landing.
Crosswind leg.	A flight path at right ang to the landing runway its upwind leg.

Downwind leg. A flight path parallel to the landing runway in the direction opposite to landing.

Base leg. A flight path at right angles to the landing runway off its approach end and extending from the downwind leg to the intersection of the extended runway center line.

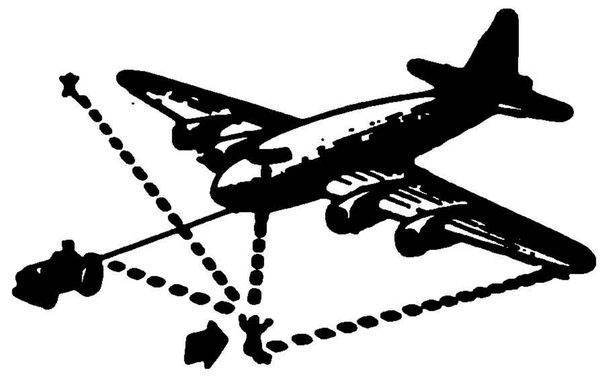
Final approach. A flight path in the direction of landing along the extended runway center line from the base leg to the runway.

HAND SIGNALS



FLAGMAN DIRECTS PILOT TO SIGNALMAN IF TRAFFIC CONDITIONS REQUIRE

SIGNALMAN'S POSITION

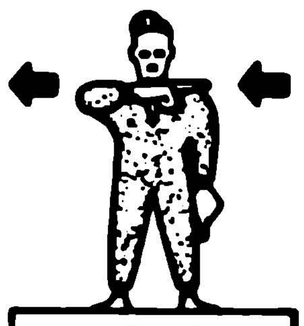


SIGNALMAN DIRECTS TOWING

STOP

COME AHEAD

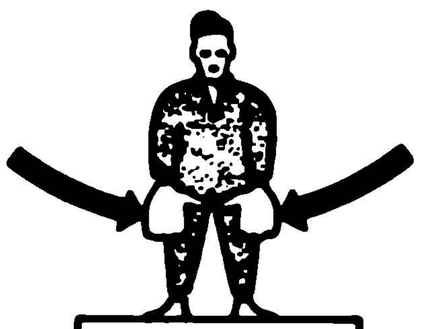
EMERGENCY STOP



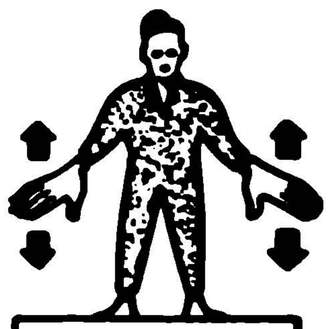
CUT ENGINES

START ENGINES

PULL CHOCKS



INSERT CHOCKS



SLOW DOWN

ALL CLEAR (O.K.)

LEFT TURN

RIGHT TURN

NIGHT OPERATION

GENERAL

U.S. ENTRY AND DEPARTURE REQUIREMENTS

1. GENERAL

a. Air Commerce Regulations of the United States Part 6, place certain responsibilities upon owners and operators of aircraft engaging in flight to/from foreign countries.

b. Customs, and the other agencies concerned, desire to facilitate air travel to the fullest extent possible while carrying out their responsibilities. Plane operators can assist greatly by familiarizing themselves with the regulations and by complying with them under all circumstances. Failure to do so may incur substantial penalties.

c. The following sets forth principal requirements of concern to private plane operators engaging in international flights.

2. ARRIVAL AND DEPARTURE MANIFESTS

a. All aircraft departing from the continental United States or Alaska for Canada or the French Islands of St. Pierre or Miquelon are exempt from filing an arrival or departure manifest. Aircraft arriving from any other place are required to file arrival and departure manifests. However, the Immigration and Naturalization Service does not require private aircraft not carrying passengers for hire to file an arrival or departure manifest when arriving from or departing to Mexico.

3. ADVANCE NOTICE REQUIRED

a. Advance notice of each arrival must be furnished U.S. Customs officials at or nearest the place of intended first landing who will notify the Immigration and Public Health officials, except that separate notice to the Public Health Service is required fo rentry to the Virgin Islands.

b. Advance notice should be sent so as to be received in sufficient time to enable the officers designated to inspect the aircraft to reach the place of landing before arrival of the aircraft. At those airports where full time customs service is not available, at least one hour advance notice is required for this purpose.

c. Notification may be made by telephone, which is preferable, by telegram or by radio. The notice should specify the following: (1) Type of aircraft; (2) Identification; (3) Name of pilot; (4) Place of last departure; (5) Airport of entry; (6) Number of alien and citizen passengers, and (7) estimated time of arrival. (Indicating whether C.S.T., E.S.T., etc.) Private aircraft arriving from Canada or Mexico may request that advance notice of arrival to customs officers be included in the *flight plan* filed in those countries if destined to an airport in the U.S. where flight notification service is available. At a landing rights airport such notices will then be treated as applications for permission to land.

d. Aircraft may use the following method of notifying customs when departing from a country or remote area where a pre-departure flight plan cannot be filed or an "advise customs" message cannot be included in a pre-departure flight plan. Call the nearest domestic or international FAA Flight Service Station as soon as it is estimated that radio communications can be established and file a VFR (DVFR) flight plan and include as the last item "advise customs." The station with which such a flight plan is filed will forward it to the appropriate FAA station who will notify the customs office responsible for the destination airport.

e. If the pilot fails to include "advise customs" in the radioed flight plan, it will be assumed that he has made other arrangements and FAA *will not* advise customs.

f. FAA assumes no responsibility for any delays in advising customs if the flight plan is given to FAA too late for delivery to customs before arrival of the aircraft. FAA cannot relay an "advise customs" flight plan if the pilot indicates a destination airport where flight service notice to customs if NOT available.

4. AIRPORTS FOR ENTRY AND REENTRY

a. If the operator of a private aircraft returning to or visiting the United States wishes to *land at any airport of entry, advance notice of arrival* is necessary. This advance notice should be sent also to the immigration and public health officers at or nearest the intended place of first landing.

b. If he intends to land at a place *not designated as an airport of entry, he must obtain permission to make such landing, and give advance notice of arrival* to the customs office nearest the intended place of first landing. It is not necessary that separate requests be sent to immigration and public health officers in these cases.

U.S. ENTRY AND DEPARTURE (Con't)

c. **What to report**—The advance notice should specify the type of aircraft, registration marks, name of commander, place of last departure, international airport, number of alien passengers, number of citizen passengers, and the estimated time of arrival. *This advance notice should be sent in time to enable officers designated to inspect the aircraft to reach the place of landing before the plane arrives.*

d. Upon arrival, the operator and passengers will be examined in the same manner as any international traveler. They must declare any articles acquired aboard. If passengers or cargo are carried for hire, an inward manifest must be filed. Customs officers will supply forms for both types of declarations.

5. EMERGENCY

a. If an emergency landing is made in the United States, the plane operator should report as promptly as possible to the nearest customs, immigration, and public health officers. He should not permit any merchandise or baggage to be removed, or any passengers to depart without official permission unless necessary for preservation of life or property.

6. CHARGES

a. No charges are made for services during business hours *when a landing takes place at any airport of entry*: *except* that, when an aircraft arrives on Sunday or holiday, or during other than regular hours, OVERTIME PAY WILL BE COLLECTIBLE. These charges are required by law. They may amount to as much as two days' pay for each officer for any service performed on a Sunday or holiday. However, the charges are prorated where more than one aircraft is processed.

b. *If the landing is made at a place other than an airport of entry*, any expenses incurred by Government officers in going to and from the place of landing are payable by the plane operator. In addition, if the aircraft arrives on a Sunday or holiday, or during other than regular hours, OVERTIME PAY WILL BE COLLECTIBLE.

7. TRANSBORDER FLIGHTS TO CANADA

a. Customs regulations allow the clearance by telephone of private aircraft departing for Canada and not carrying cargo.

b. If not carrying cargo, passengers for hire, nor departing to pick up passengers for hire at points in Canada, a private aircraft departing for Canada does not require a clearance of any type.

c. If carrying passengers for hire or departing to pick up passengers for hire at points in Canada and not carrying cargo, approval of clearance may be applied for by telephone when consideration of distance and expense or, in an emergency, time a present.

d. For Buffalo-Niagara Falls area apply to the supe visory inspector at the Peace Bridge at Buffalo to the supervisory inspector at the Rainbow Brid at Niagara Falls. The telephone number at t Peace Bridge is GRant 1180 and at the Rainb Bridge BUtler 2-4562. When approval of t clearance is obtained from the Peace Bridge, t general outward declaration should be mailed United States Customs, Peace Bridge, Buffa New York. Similarly, when approval of clearan is obtained from the Rainbow Bridge, the gener outward declaration should be mailed to Unit States Customs, Rainbow Bridge, Niagara Fal New York.

e. Special arrangements have been made with Ca ada and Mexico that substantially differ from t requirements outlined above. Complete deta are included in the International Flight Inform tion Manual which can be obtained from Su of Documents, Government Printing Office, Was D.C. 20402.

8. AIRPORTS OF ENTRY

a. Any aircraft may land at one of the following ai ports and permission to land from U.S. Customs not required. However, advance notice of arriv must be furnished to U.S. Customs. This may l included in your *flight plan* filed in Canada Mexico if destined to an airport where flight noti cation service is available.

Alaska
Juneau/Juneau SPB
Juneau/Juneau Mun
Ketchikan/Ketchikan SPB
*Wrangell/Wrangell SPB

Arizona
Douglas/Bisbee-Douglas Arpt
*Nogales/Nogales Intl

California
Calexico/Calexico Mun
San Diego/San Diego Mun (Lindbergh Fld)

Florida
Fort Lauderdale/Broward County Arpt
Key West/Key West Intl
Miami/Miami Intl
Miami/Chalks Flying Service SPB
Tampa/Tampa Intl
West Palm Beach/Palm Beach Intl

Illinois
Chicago/Chicago Midway

Maine
Caribou/Caribou Mun

Michigan
Detroit/Detroit Mun
Detroit/Detroit Metropolitan Wayne County
Port Huron/St Clair County Arpt
Sault Ste Marie/Sault Ste Marie Arpt

U.S. ENTRY AND DEPARTURE (Con't)

Minnesota
Baudette/Baudette Mun
Duluth/Williamson-Johnson Mun
Duluth/Sky Harbor Arpt
International Falls/International Falls Mun

Montana
Cut Bank/Cut Bank Arpt
Great Falls/Great Falls Intl
Havre/Havre-Hill County Arpt

New York
Albany/Mun Fld
Buffalo/Greater Buffalo Intl
Malone/Malone-Dufort Arpt
†Massena/Richards Fld
Ogdensburg/Ogdensburg Mun
Ogdensburg/Ogdensburg Harbor
Rochester/Rochester Mun
Rouses Point/Rouses Point SPB
†Watertown/Watertown Mun

North Dakota
Grand Forks/Grand Forks Mun
Minot/Minot Intl
Pembina/Fort Pembina Arpt
Portal/Portal Mun Arpt
Williston Intl/Sloulin Fld

Ohio
Akron/Mun Arpt
Cleveland/Cleveland Hopkins Arpt
*Put-in-Bay/Put-in-Bay Arpt
Sandusky/Sky Tours, Inc

Texas
Brownsville/Rio Grande Valley Intl
Del Rio/Del Rio Intl.
*Eagle Pass/Eagle Pass Arpt
El Paso/El Paso Intl
Laredo/Laredo Mun
McAllen/Miller Intl

Vermont
Burlington/Burlington Mun

Washington
Bellingham/Bellingham Arpt
Friday Harbor/Friday Harbor SPB
Oroville/Dorothy Scott Mun
Oroville/Dorothy Scott SPB
Port Townsend/Port Townsend Arpt
Seattle/Boeing Mun Air Fld
Seattle/Lake Union
Spokane/Felts Fld

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*Indicates Flight Service notification to U.S. Customs not available. Flight notification service available to all airports not so marked for private flights from Canada to Mexico.
†Indicates U.S. Public Health Service inspection not available.

9. LANDING RIGHTS AIRPORTS

a. At the following airports an application for permission to land must be submitted in advance to U.S. customs. Advance notice of arrival must also be furnished to U.S. Customs. Advance notice of arrival may be included in your flight plan filed in Canada or Mexico if destined to an airport where flight notification service is available and this notice will be treated as an application for permission to land.

Alabama
Mobile/Bates Fld

Alaska
Anchorage/Anchorage Intl
Annette/Annette Island Arpt
Fairbanks/Fairbanks Intl
*†Haines/Mun Arpt
†Northway/FAA Fld
†Petersburg SPB
†Sitka SPB
*†Skagway/Skagway Mun

California
Los Angeles/Los Angeles Intl
San Francisco/San Francisco Intl

Colorado
Denver/Stapleton Fld

Connecticut
East Hartford/Rentschler Fld
*Groton/Trumbull Arpt
Hartford/Brainard Fld
*New Haven/New Haven Mun
*Stratford (Bridgeport)/Bridgeport Mun
Windsor Locks/Bradley Fld

District of Columbia
Washington/Washington National

Florida
Jacksonville/Imeson Mun
St. Petersburg/Clearwater Intl

Hawaii
Honolulu/Honolulu Intl

Idaho
*†Porthill/SPB

Illinois
Chicago/O'Hare Fld (Chicago Intl)
Chicago/Meigs Fld

Indiana
Indianapolis/Weir Cook

Louisiana
New Orleans/Moisant Intl

Maine
Bar Harbor/Mun Arpt
*Eastport/Eastport Mun
Houlton/Houlton Mun
*Jackman/Jackman Mun (Newton Fld)
Portland/Portland Mun

Maryland
Baltimore/Friendship Intl

Massachusetts
Bedford/Hanscom Fld
*Beverly/Beverly Mun
Boston/Logan Intl
*Lawrence/Lawrence Mun
*New Bedford/New Bedford Mun
*Westfield/Barnes Arpt
Worcester/Worcester Mun

U.S. ENTRY AND DEPARTURE (Con't)

Michigan
*†Alpena/Phelps-Collins Arpt
*Bay City/James Clements Mun
Detroit/Detroit Motor Boat Sales SPB
†Houghton/Houghton County Mem
†Marquette/County Arpt
†Pellston/Emmet County Arpt
Port Huron/Baker's Fld

Minnesota
*†Crane Lake/Mohr and Handberg's Base
*†Ely/Leithold SPB
Minneapolis/Minneapolis-St. Paul Intl
(Wold Chamberlain)
*†Pinecreek/Pinecreek Arpt
*†Ranier/Rainy Lake SPB
*†Warroad/Warroad Mun

Montana
*†Scobey/State County Arpt

Nebraska
†Omaha/Mun Arpt

New Jersey
Newark/Newark Arpt

New Mexico
Columbus/Columbus Arpt
(FAA Intermediate Airfield)

New York
New York/La Guardia Arpt
New York/New York Intl
Niagara Falls/ Niagara Falls Arpt
Point Pleasant/Point Pleasant SPB
Syracuse/Hancock Arpt

North Dakota
*Noonan/Border Arpt

Ohio
†Akron/Akron-Canton Arpt
†Akron/Wingfoot Lake
Cleveland/Lakefront Arpt
†Kent/Kent State Arpt
Toledo/Toledo Express Arpt
Toledo/National Arpt

Oregon
Portland/Portland Intl

Pennsylvania
Erie/Port Erie Arpt
Philadelphia/Philadelphia Intl
Pittsburgh/Greater Pittsburgh Arpt

Puerto Rico
San Juan/Puerto Rico Intl

Rhode Island
Providence/Theodore Francis Green Arpt

South Carolina
Charleston/Charleston Mun

Texas
Corpus Christi/Corpus Christi Intl Arpt
Dallas/Love Fld
Houston/Houston Intl
San Antonio/San Antonio Intl

Vermont
*Newport/Newport Mun
*Swanton/Warren R. Austin Arpt

Virgin Islands
St. Thomas/Harry S. Truman Arpt

Virginia
Norfolk/Norfolk Mun

Washington
*†Northport/James A. Lowry Arpt
*Port Angeles/Clallam County Arpt
*Port Angeles/Port Angeles Boat Haven
Port Townsend/Port Townsend Bay
Seattle/Seattle-Tacoma Intl
Spokane/Geiger Fld

Wisconsin
†Green Bay/Austin Straubel Arpt
Milwaukee/General Mitchell Fld

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*Indicates Flight Service notification to U.S. Customs n available. Flight notification service available to all airpor not so marked.

†Indicates landing rights may be granted provided the ai craft is not subject to quarantine inspection by the U.S. Pu lic Health Service. (Sec. 71.46, P.H.S. Foreign Quarantii Regulations.)

ADIZ PROCEDURES (F.A.R. PART 99)

1. An "Airfiled" flight plan makes the aircraft subje to interception for positive identification. Pilots a strongly urged, therefore, to file DVFR Flight Pla required for Security Control either in person or t telephone. FAA Flight Service Stations will acce collect long distance telephone calls made for t purpose of filing required DVFR flight plans. T following procedures apply:
   a. Contact the long distance telephone operator a place a collect, station-to-station call from "S CURITY PILOT (your last name)" to the FA station.
   b. When the FAA accepts the call, file your DVF flight plan as expeditiously as possible.
2. Pilots should note that FAA stations will not acce collect calls from locations which are obviously mu closer to another FAA station, neither will they a cept calls which do not contain the key words "S CURITY PILOT (name)." In order to conserve go ernment funds, FAA stations will not accept lor distance collect calls from any pilot within the D fense Area. DVFR flight plans from such points wi be accepted, however, if filed at no expense to t government.

ADIZ PROCEDURES (Con't)

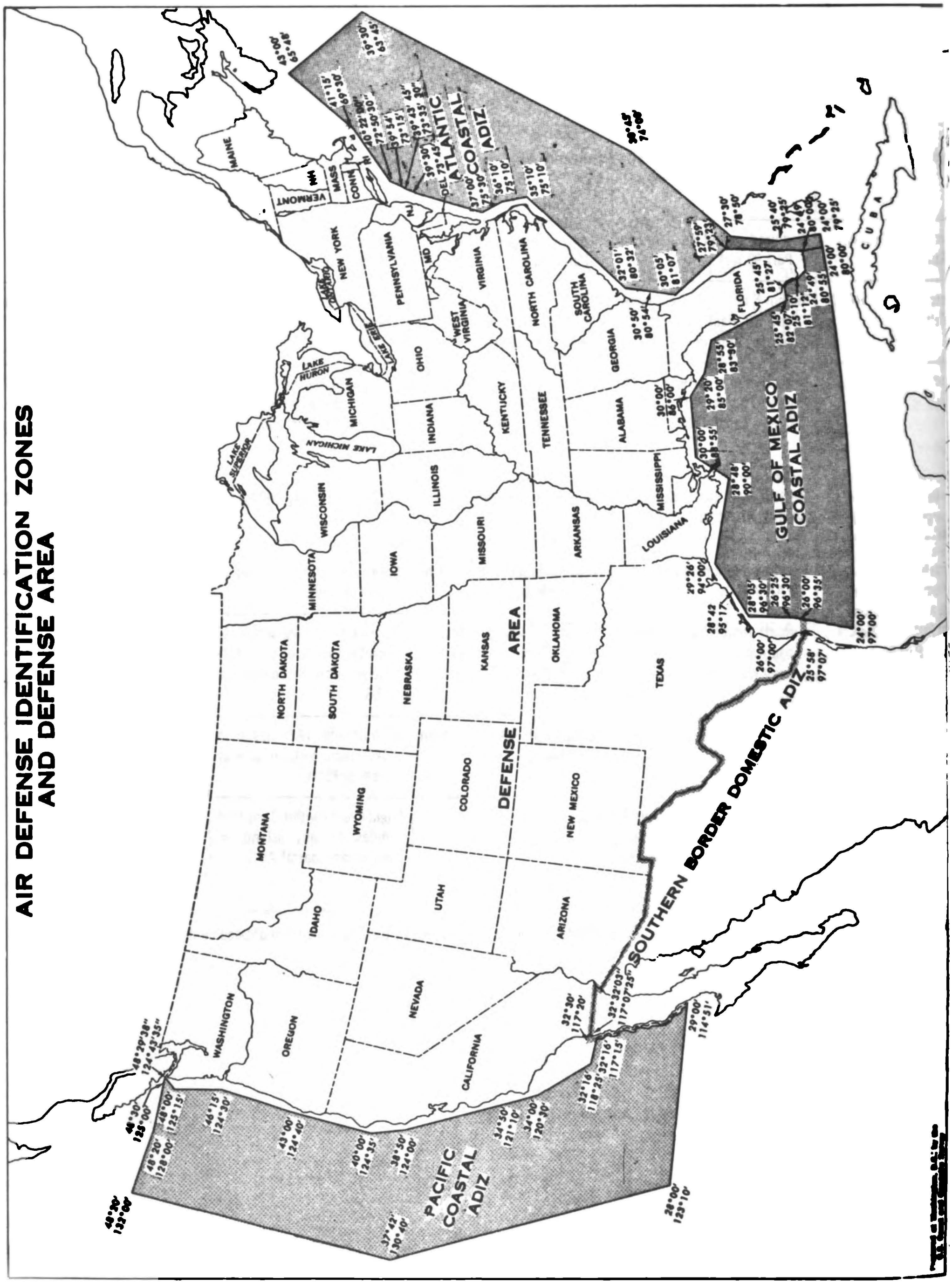
ADIZ Operational Requirements, Abbreviated Form

	Southern Border Domestic ADIZ	Alaskan Domestic ADIZ	Coastal ADIZ	DEWIZ
Flight Plan	Required for northbound aircraft.	Required	Required	Required before take-off ETDP required. Exception permitted in Part 99.13
Functioning Two-way Radio.	Required except as stated in Part 99.1(c)	Required except as stated in Part 99.1(c)	Required except as stated in Part 99.1(c)	Required.
Recommended ADIZ Tolerances	Within 5 minutes of estimate and 10 nautical miles of course centerline.	Within 5 minutes of estimate and 10 nautical miles of course centerline.	Within 5 minutes of estimate and 20 nautical miles of course centerline.	Within 5 minutes of estimate and 20 nautical miles of course centerline.
Position Reports	Normal IFR reports or—VFR give ETP at least 15 minutes before penetration.	Normal IFR reports or—VFR give ETP at least 15 minutes before penetration.	Same as Domestic ADIZ or—inbound foreign aircraft initial report at least one hour from U.S.	Normal IFR reports or—VFR report prior to penetration. Correlation of ground filed data may be requested.
Air Defense Emergencies Part 99.7	ADDITIONAL SPECIAL SECURITY INSTRUCTIONS MAY BE ISSUED DURING DEFENSE EMERGENCY OR AIR DEFENSE EMERGENCY CONDITIONS.			
Aircraft excepted from compliance to the provisions of Part 99 other than Part 99.7	Local exemptions granted by FAA ARTCC.	Local exemptions granted by FAA ARTCC.	Local exemptions granted by FAA ARTCC.	Local exemptions granted by FAA ARTCC.
	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.
	Aircraft with TAS less than 180 knots.	Aircraft with TAS less than 180 knots.	Aircraft with TAS less than 180 knots, north of 28°N or west of 85°W.	Aircraft with TAS less than 180 knots—listening watch required.
	Aircraft from U.S. southbound through Southern Border ADIZ not entering Coastal ADIZ.		Flight over or within 3 nautical miles of any island in Hawaiian Coastal ADIZ.	

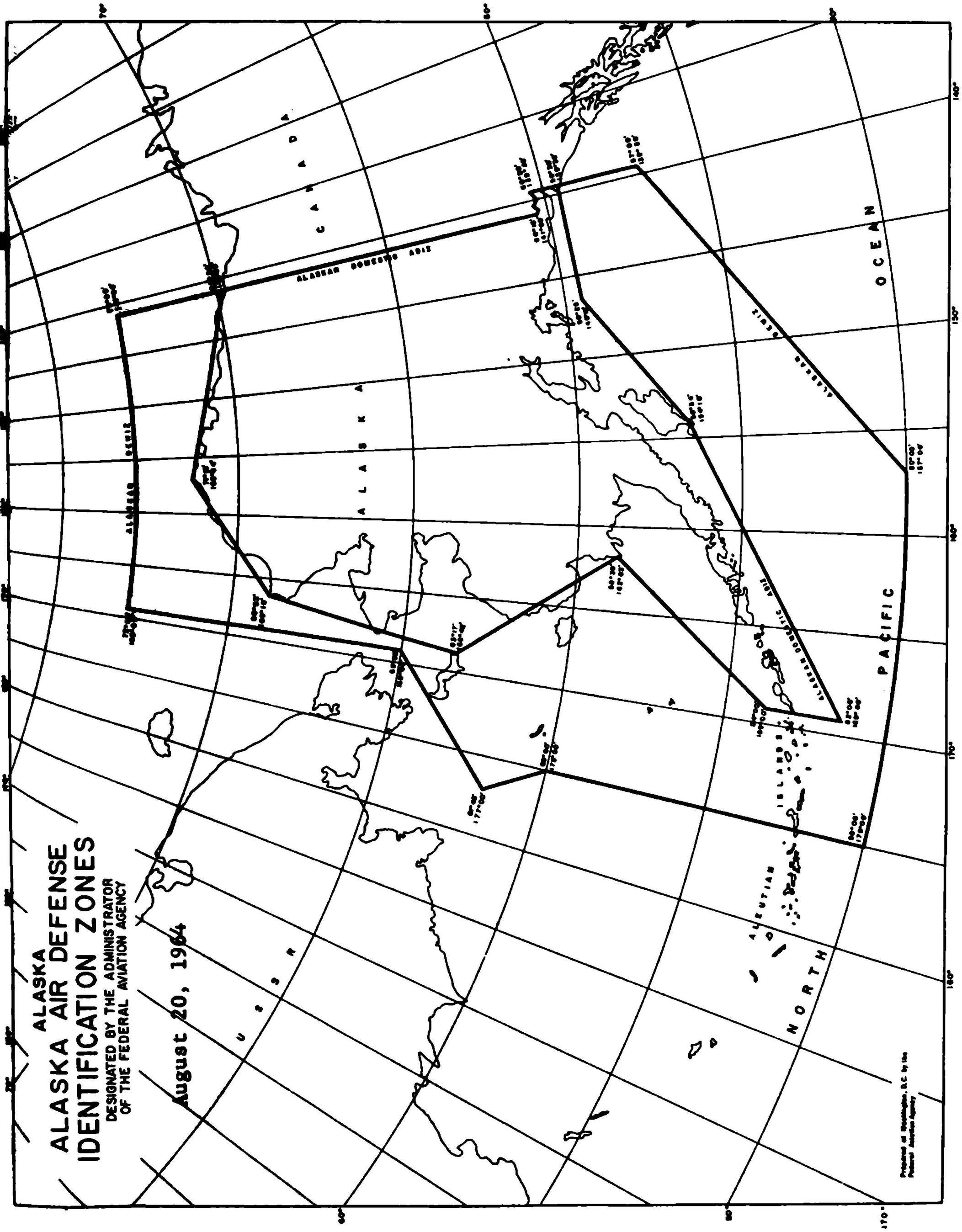
NOTE: Detailed procedures to be followed by the pilot are contained in Part 99, for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402

ADIZ PROCEDURES (Con't)

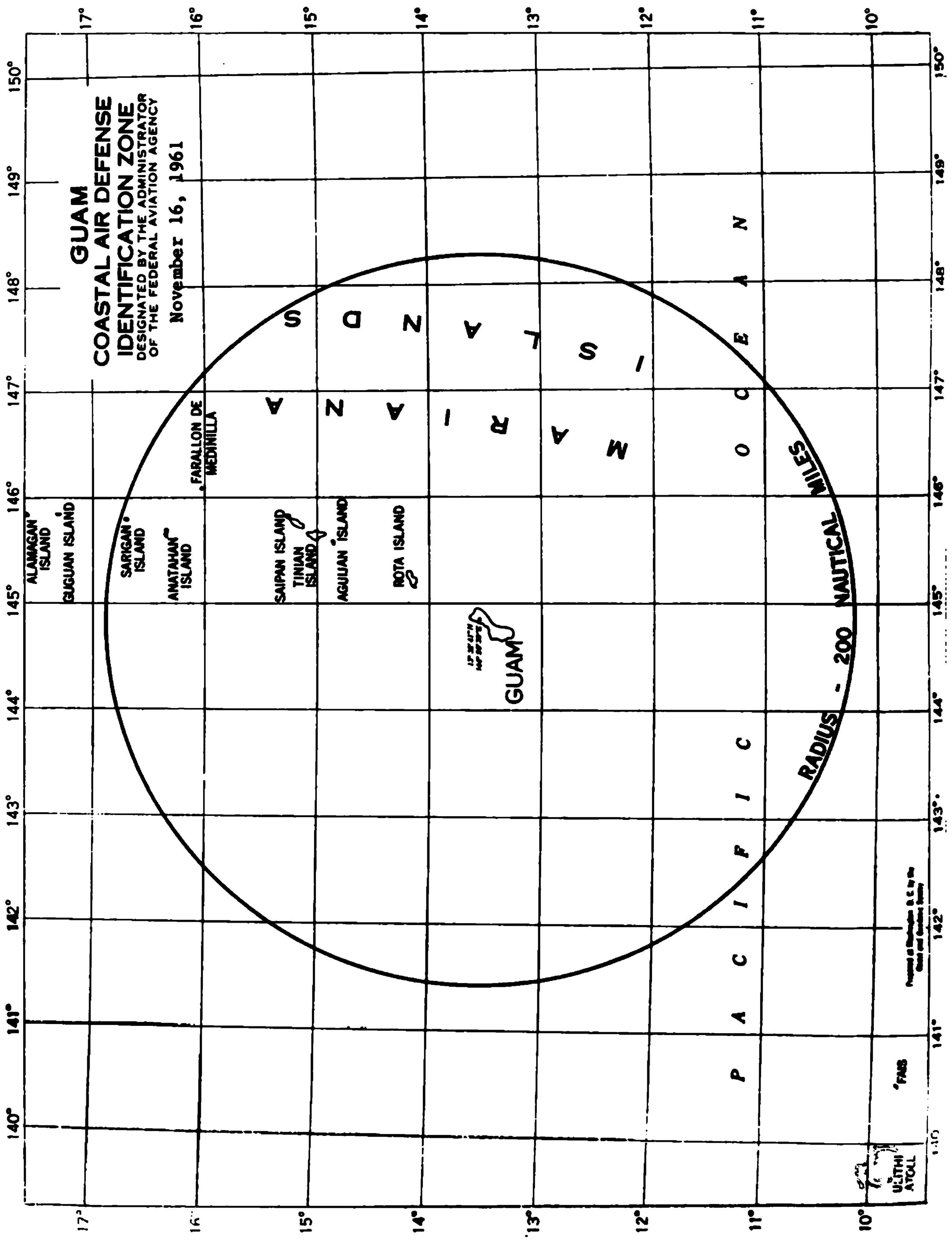
AIR DEFENSE IDENTIFICATION ZONES AND DEFENSE AREA



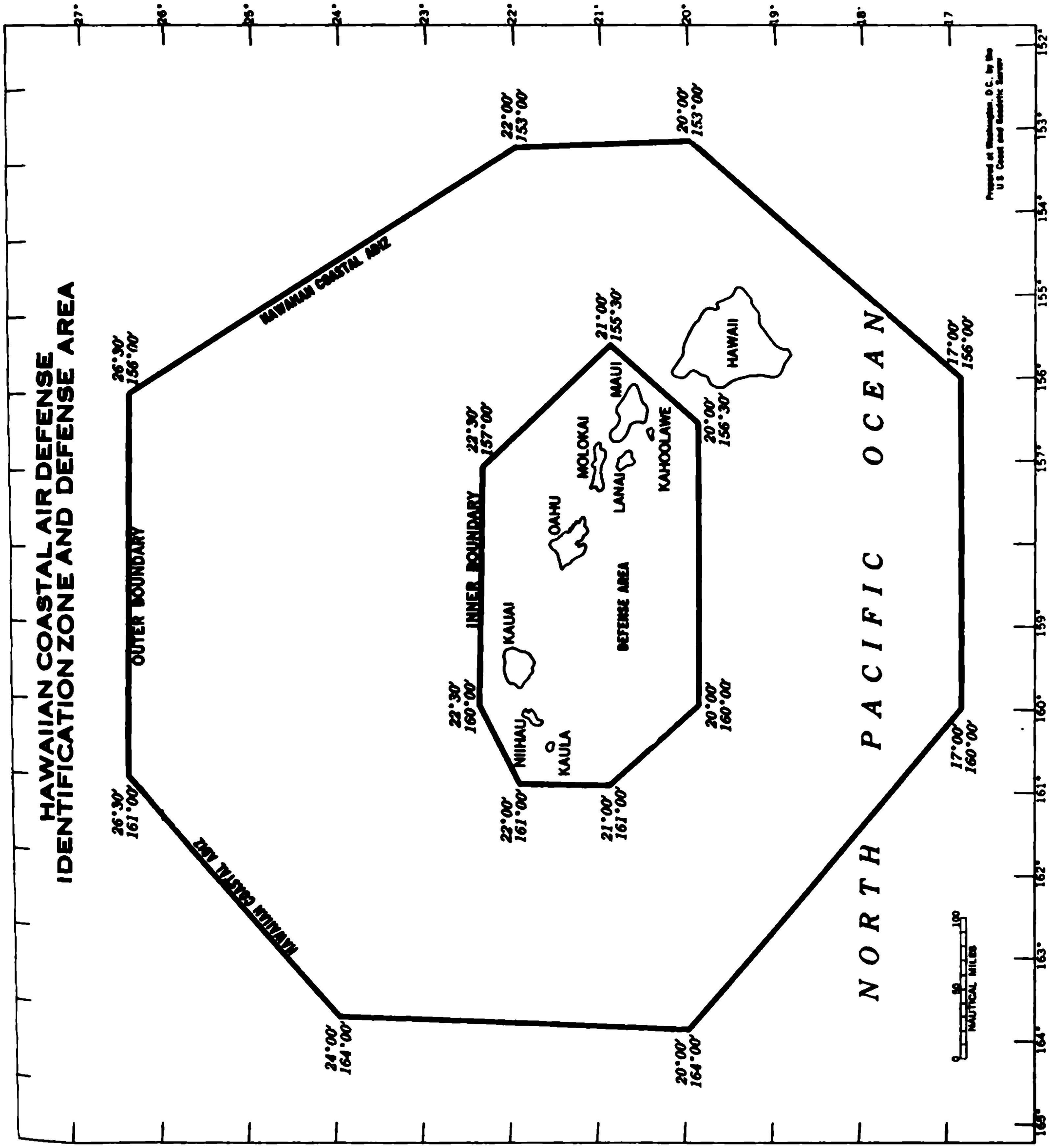
ADIZ PROCEDURES (Con't)



ADIZ PROCEDURES (Con't)



ADIZ PROCEDURES (Con't)

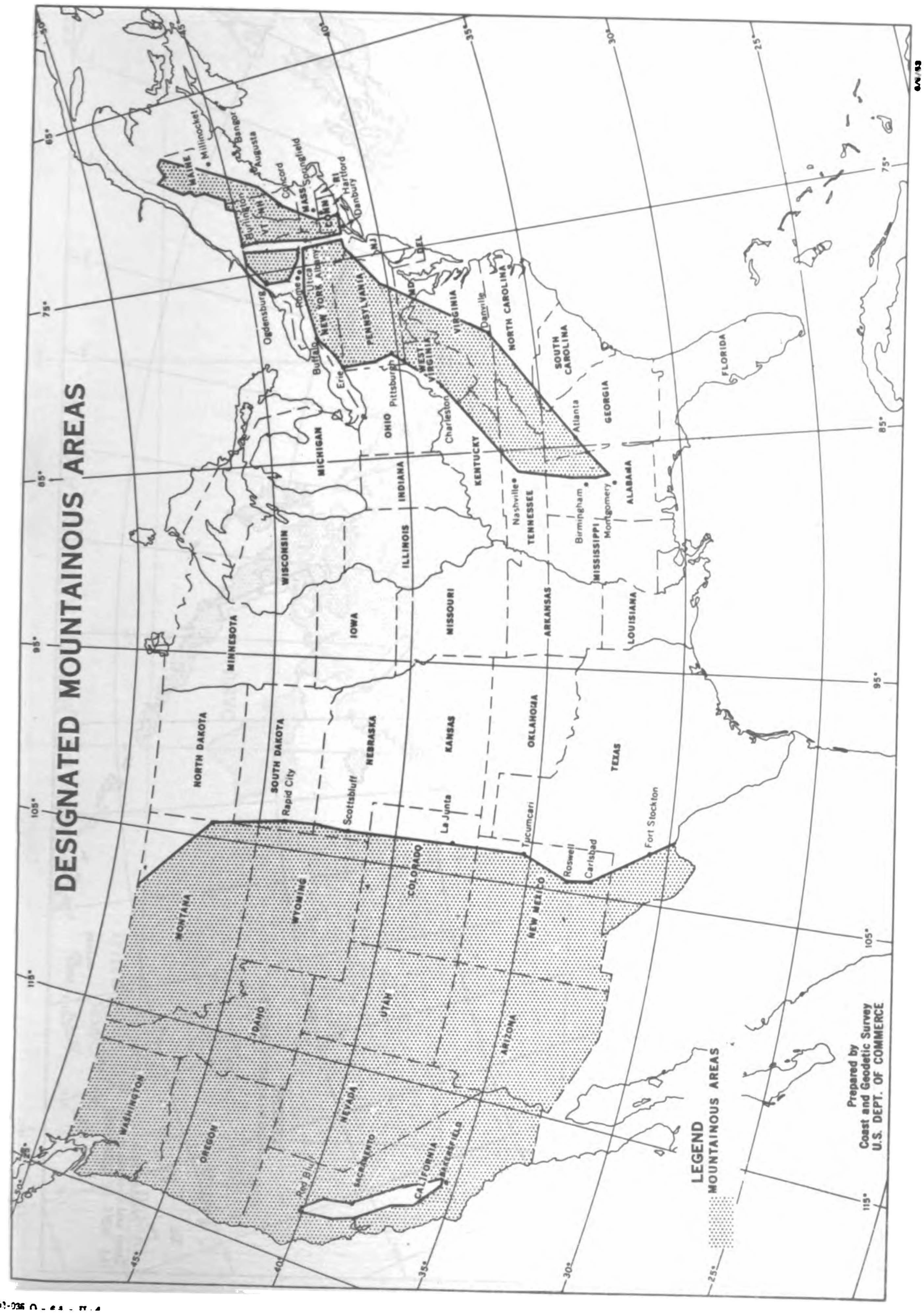


ADIZ PROCEDURES (Con't)

PANAMA CANAL ZONE
DOMESTIC AIR DEFENSE IDENTIFICATION ZONE

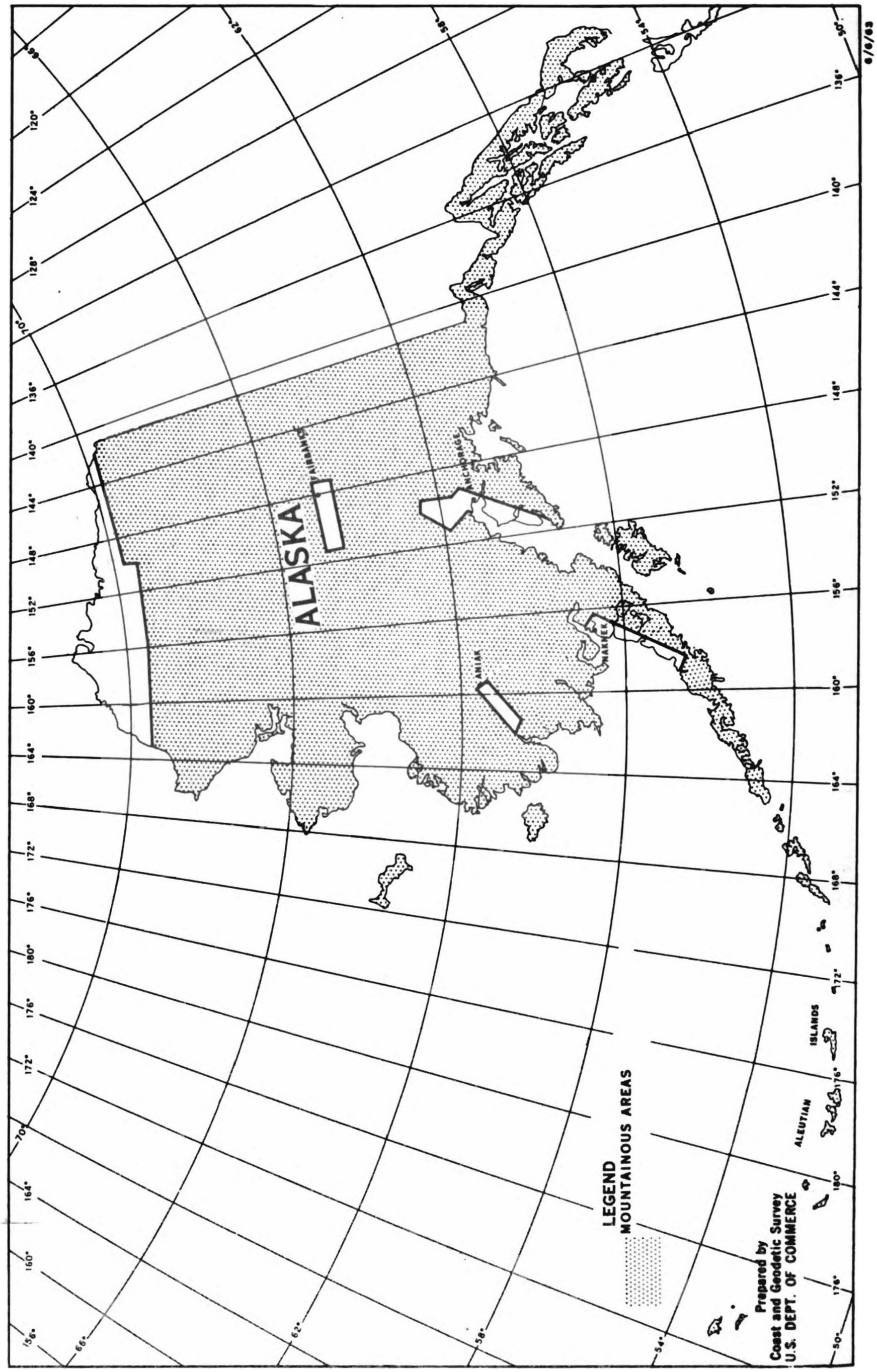
PANAMA CANAL ZONE DOMESTIC ADIZ - THE AIRSPACE ABOVE THE CANAL ZONE - INCLUDING THE TERRITORIAL WATERS WITHIN THE THREE MILE MARINE BOUNDARY AT EACH END OF THE CANAL - BEGINNING AT 2500 FEET MSL AND EXTENDING UPWARD. 10

ADIZ PROCEDURES (Con't)

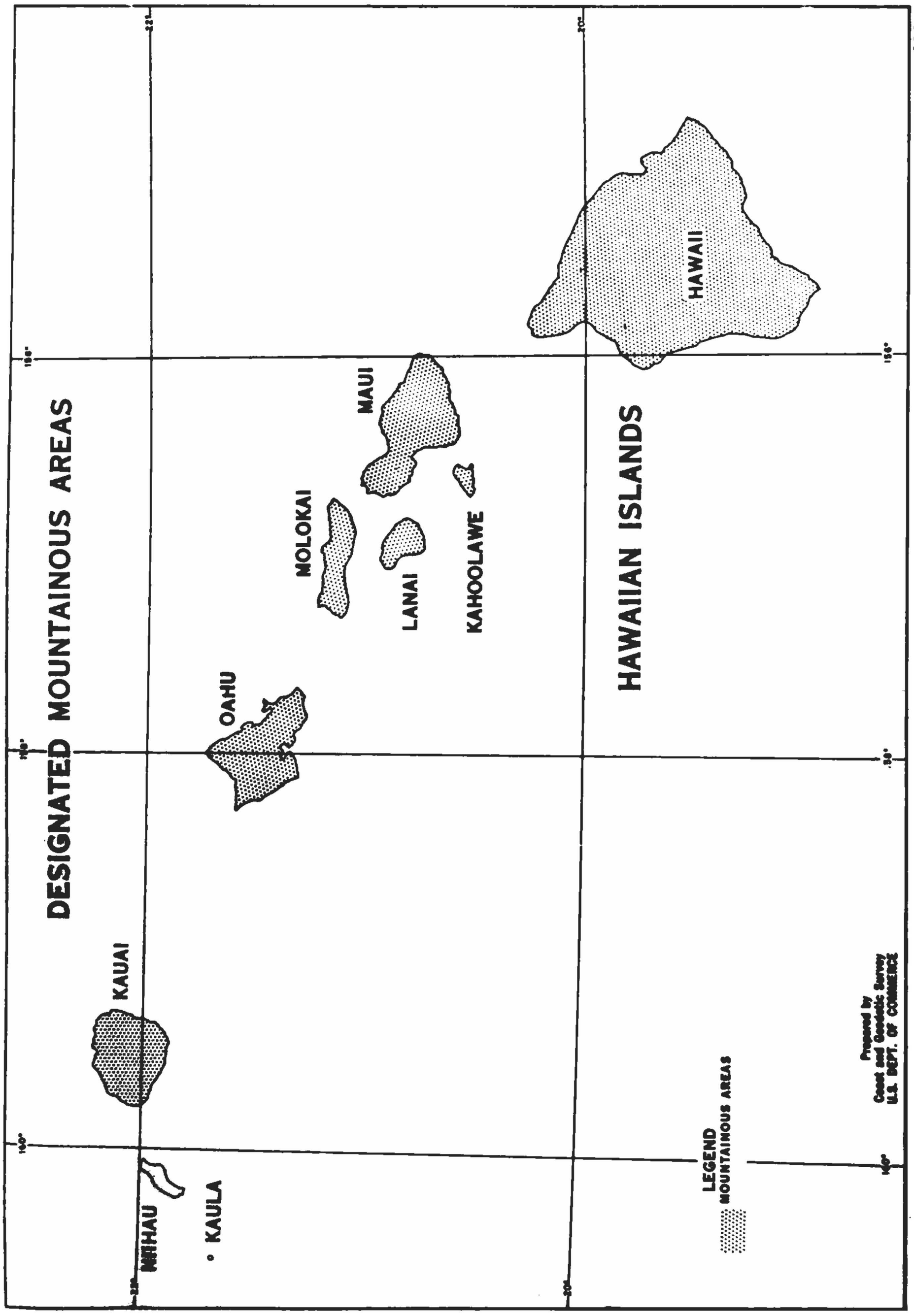


ADIZ PROCEDURES (Con't)

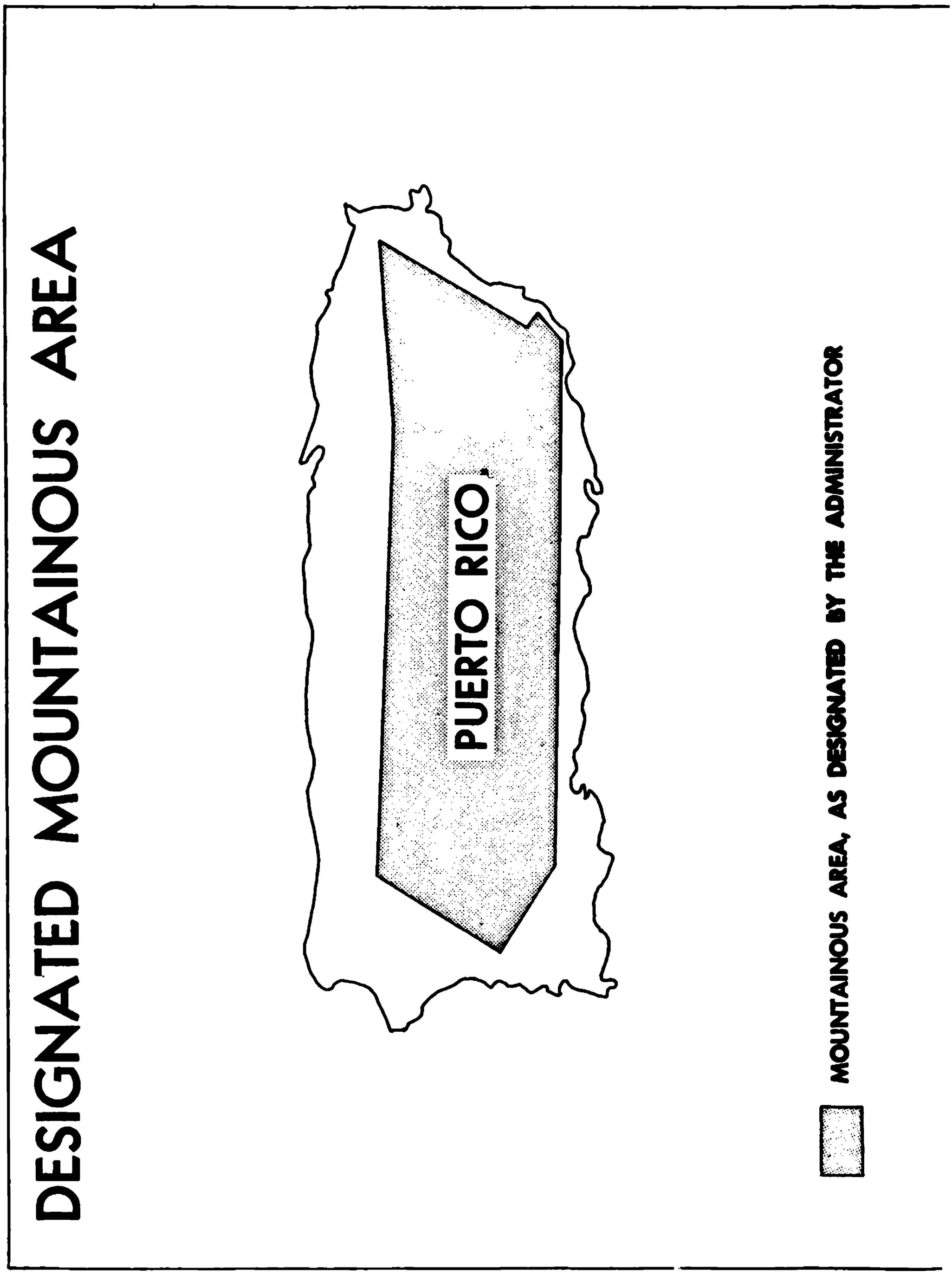
DESIGNATED MOUNTAINOUS AREAS



ADIZ PROCEDURES (Con't)



ADIZ PROCEDURES (Con't)



SCATER PROCEDURES

(Security Control of Air Traffic and Electromagnetic Radiations)

All pilots should guard a FAA control frequency at all times. In event of emergency, SCATER directives will be broadcast over these frequencies. VFR flights may expect to be ordered to land at nearest facility. IFR flights will proceed as directed by ARTCC.

Following the declaration of an Air Defense Emergency, SECURITY CONTROL RULES will become effective. These rules are included in the published SCATER Plan. Pilots should contact the nearest Air Traffic Control facility upon being advised of an Air Defense Emergency or of a CONELRAD RADIO ALERT or that SCATER has been implemented. They will then be advised as to the requirements for Security Control, if any, for flight operations.

INTERCEPTION SIGNALS

There are occasions when interceptor pilots are required to transmit instructions to pilots of intercepted aircraft. When radio communications are not available, the accompanying visual signals are used. These signals are applicable within the airspace over the United States including Alaska and Hawaii, and the territories and possessions of the United States, including the territorial waters thereof.

Interceptor pilots required to transmit instructions by visual means shall approach the aircraft to be intercepted from astern, employing the Interception Pattern for Identification of Transport Aircraft. A distance of at least 500 feet shall be maintained between aircraft exchanging signals. These signals have also been adopted by Canada and are applicable within the airspace over Canada.

IRST SERIES

Signal by interceptor	Meaning	Response by intercepted Aircraft
ly :c-ng wings from a position in :ait of intercepted aircraft and ter acknowledgement a slow rel turn on to the desired :urse. ght s day with the addition of a ser- s of flashing lights at irregular :er.als by any means available. ote:—If the interceptor in- ds only to lead intercepted air- aft away from an area it signals front and to the left of the in- rcepted aircraft. If the inter- ptor intends to lead intercepted craft for a landing it signals in nt and to the right of the inter- pted aircraft. If the intercepted aircraft is able to maintain sufficient eed to follow the interceptor: 1 The interceptor shall fly in the direction the intercepted aircraft should fly, circle to the left, and fly again in the proper direction. 2 When the area for descent is reached the interceptor shall circle to the right. The intercepted aircraft should then let down in the descending turn at the minimum rate of descent.	'Follow me' 'Fly in this direction 'Descend in this area'	Day or Night Rocking wings and following. Rocking wings and maintaining indicated direction. Rocking wings and commencing descent.

ECOND SERIES

Signal by interceptor	Meaning	Response by intercepted aircraft
y or Night P abrupt break away upward 90 degrees or more.	'You may proceed	Day or Night Rocking wings.

THIRD SERIES (To be used on arriving in vicinity of aerodrome).

Signal by interceptor	Meaning	Response by intercepted aircraft
Day Circling aerodrome and lowering landing gear. Night As day and showing steady lights if carried.	'Land at this aerodrome.	Day or Night Same as interceptor, and proceed to land.

FOURTH SERIES (To be used if intercepted aircraft finds aerodrome inadequate.)

Signal by intercepted aircraft	Meaning	Response by interceptor
Day Rocking wings while passing over landing runway at a height exceeding 1,000 feet above the level of the aerodrome. Night Flashing landing lights while passing over the landing runway at a height not exceeding 1,000 feet above the level of the aerodrome. (If unable to flash landing lights, flash any lights available.)	'Aerodrome that you have designated is inadequate'.	Day or Night If it is desired that other aircraft follow him to an alternative aerodrome, the interceptor signals the FIRST series. Should the interceptor decide to release intercepted aircraft he signals the SECOND series (meaning 'You may proceed')

DISTRESS SERIES

Signal by intercepted aircraft	Meaning	Response by interceptor
Day Porpoising. Night Switching on landing lights and holding steady beam.	'In distress'.	Day or Night Use appropriate interception signal, as shown above.

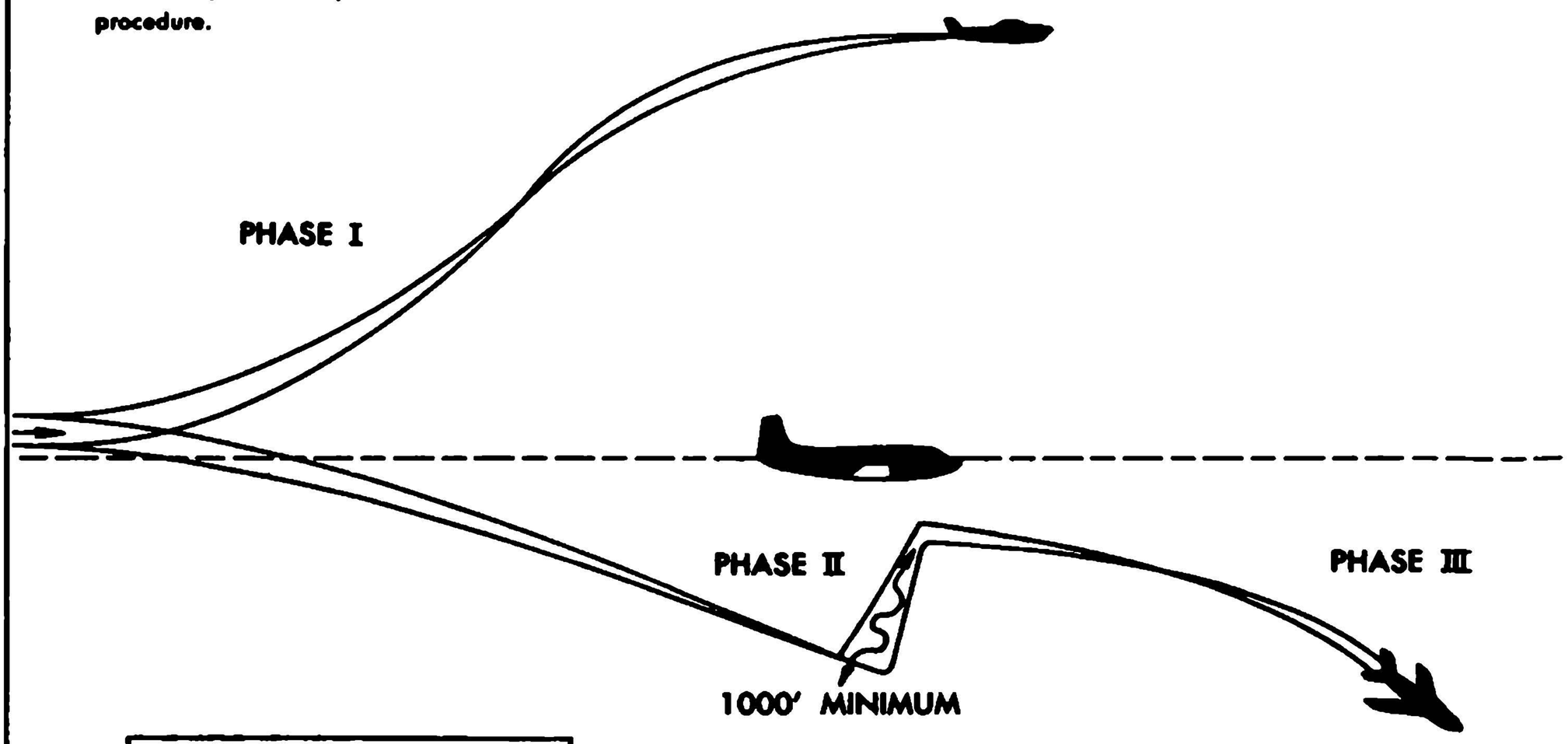
INTERCEPTION PATTERN FOR IDENTIFICATION OF TRANSPORT AIRCRAFT

PHASE I

Intercepting aircraft approach intercepted aircraft from astern. Element leader reduces throttle and extends dive brakes. Wingman continues to the opposite side of the intercepted aircraft from the leader and climbs to 4000 feet above target aircraft altitude for the purpose of maintaining surveillance, using economical power setting. Should weather ceiling not permit surveillance from this position, wingman will assume a position of either side of aircraft which will permit observation of both the aircraft and his element leader at a distance of 3000 feet from the intercepted aircraft, if visibility permits. During surveillance, wingman will maintain position by S-turns rather than reducing speed with dive brakes. The desired position of the element leader is 1000 feet abreast the aircraft at the aircraft's altitude. After speed and position are stabilized, element proceeds with Phase II of the procedure.

PHASE II

Wingman continues surveillance. Element leader begins gentle closure of aircraft at same level until no closer than absolutely necessary to obtain information needed. As he gives identification information to director, wingman copies information for mission report. Element leader uses every precaution to avoid startling intercepted aircrew or passengers, keeping constantly in mind that maneuvers considered normal to a fighter aircraft may be considered hazardous to passengers and crews of nonfighter aircraft. Upon completion of identification, fighter-interceptors withdraw from aircraft's vicinity as outlined in Phase III.



INTERCEPTION PATTERN FOR DAY-VISUAL IDENTIFICATION OF AIRCRAFT

PHASE III

Element leader breaks gently away from aircraft in shallow dive to pick up speed. Wingman stays well clear of intercepted aircraft and joins leader.

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

GENERAL

A pilot in any emergency phase (uncertainty, alert, or distress) should do three things to obtain assistance:

a. *If equipped with IFF, switch to "Emergency" position.*

b. *Contact controlling agency and give nature of distress and pilot's intentions.* If unable to contact controlling agencies, attempt to contact any agency on assigned frequency or any of the following frequencies (transmit and receive):

Frequency	Emission	Effective Range in Nautical Miles	Guarded By
121.5 mc	Voice	Generally limited to radio line-of-sight	All military towers, most civil towers, VHF direction finding stns, radar facilities. Flight Service Stns. Ocean Station Vessels.
243.0 mc	Voice	Generally limited to radio-line-of-sight	All military towers, most civil towers, VHF direction finding stns, radar facilities. Flight Service Stns. Ocean Station Vessels.
2182 kc	Voice	Generally less than 300 miles for average aircraft installations	Some ships and boats, Coast Guard stations, most commercial coast stations.
500 kc	CW	Generally less than 100 miles for average aircraft installations	Most large ships most Coast Guard radio stations, most commercial coast stations.
8364 kc	CW	Up to several thousand miles, depending upon propagation conditions. Subject to "skip."	U.S.N. Direction Finding Stations, Ocean Station Vessels, most Coast Guard radio stations and some FAA International Flight Service Stations (IFSS)

Transmit as much of the following as possible:

(1) MAYDAY, MAYDAY, MAYDAY (if distress), or PAN, PAN, PAN (if uncertainty or alert). If CW transmission, use SOS (distress) or XXX (uncertainty or alert).

(2) Aircraft identification repeated three times.

(3) Type of aircraft.

(4) Position or estimated position (stating which).

(5) Heading (true or magnetic) (stating which).

(6) True airspeed or estimated true airspeed (stating which).

(7) Altitude.

(8) Fuel remaining in hours and minutes.

(9) Nature of distress.

(10) Pilot's intentions (bailout, ditch, crash landing, etc.).

(11) Assistance desired (fix, steer, bearing, escort, etc.).

(12) Two 10-second dashes with mike button (voice) or key (CW) followed by aircraft identification (once) and OVER (voice) or K (CW).

c. **Comply with instructions received.** Accept the "communications control" offered to you by the ground radio station, silence interfering radio stations, and do not shift frequency or shift to another ground station unless absolutely necessary.

2. Pilots of IFR flights experiencing two-way radio failure are expected to adhere to the procedures prescribed under "RADIO COMMUNICATIONS FAILURE" (F.A.R. PART 91.127). However, if a pilot should become lost, or if other factors prevent the pilot from being able to comply with prescribed procedures, such pilot, as well as pilot of VFR flights, may attempt to alert civil or military radar systems as follows:

a. **If receiver only is operating:** Fly triangular pattern to the RIGHT (see diagram). Hold each heading for two minutes (1 minute for jet use). Complete a minimum of two such patterns before resuming original course and then repeat pattern at 20-minute intervals. When flying triangular patterns to the right the emergency frequencies (121.5 or 243.0 mc) should be guarded. If pattern is observed by radar controllers, instructions will be given.

b. **If transmitter and receiver are both inoperative:** Fly a triangular pattern to the LEFT (see diagram), in the same manner as described above. If patterns are observed by radar controllers, an escort will be dispatched, if possible. If distressed aircraft is flying in IFR conditions or if at night, landing lights, navigational lights, etc., should be turned on to aid the interceptor. If intercepted, follow rescue aircraft.

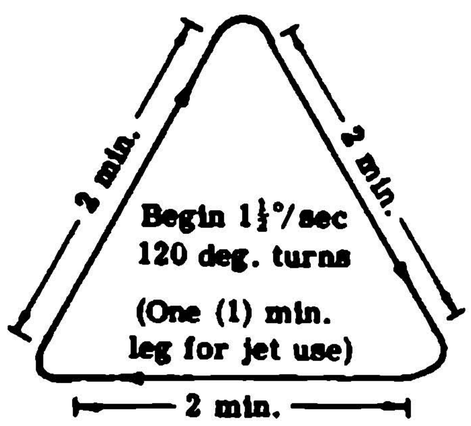


Figure 1 - With Receiver Operating Only

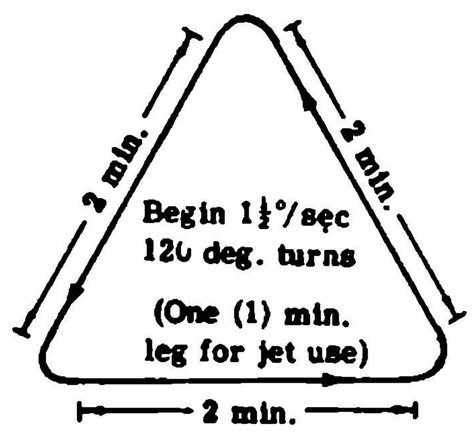


Figure 2 - With Transmitter and Receiver Inoperative

GENERAL (Con't)

c. The pilot should remember that he has *three* means of declaring an emergency:
(1) Emergency IFF;
(2) Sending emergency message; and
(3) Flying triangular pattern.

d. Ground stations have *three* electronic means of assisting:
(1) Receipt of emergency message;
(2) Radar detection of IFF signal and triangular pattern; and
(3) DF bearings.

e. **Pilots should remember the FOUR C's**

(1) **Confess** your predicament to any ground radio station. Do not wait too long. Give SAR a chance!

(2) **Communicate** with your ground link and pass as much of the distress message on first transmission as possible. We need information for best SAR action!

(3) **Climb** if possible for better radar and DF detection. If flying at low altitude, the chance for establishing radio contact is improved by climbing, also chances of alerting radar systems are sometimes improved by climbing or descending.

NOTE.—Climbing or descending under IFR conditions within controlled airspace is not permitted except in *emergency*. Any variation in altitude, track, etc., in connection with flying radar patterns will be unknown to Air Traffic Control. Air Traffic Control will operate on the assumption that the provision of FAR, Part 91.127 are being followed by the pilot.

(4) **Comply**—especially *Comply*—with advice and instructions received, if you really want help. Assist the ground "communications control" station to control communications on the distress frequency on which you are working (as that is the distress frequency for your case). Tell interfering stations to maintain silence until you call. Cooperate!

3. For bailout, set radio for continuous emission. For ditching or crash landing, radio should, if it is considered that there is no additional risk of fire and if circumstances permit, be set for continuous transmission.

4. When a pilot is in doubt of his position, or feels apprehensive for his safety, he should not hesitate to request assistance. Search and Rescue facilities, including Radar, Radio, and DF stations, are ready and willing to help. There is no penalty for using them. Delay has caused crashes and cost lives. Take Action!

SEARCH AND RESCUE

1. GENERAL

a. Search and Rescue is a life-saving service provided through the combined efforts of the FAA, Air Force, Coast Guard, State Boards, A nautic Commissions or other similar state agen who are assisted by other organizations suc the Civil Air Patrol, Sheriffs Air Patrol, S Police, etc. It provides search, survival aid, rescue of personnel of missing or crashed airc

b. Prior to departure on every flight, local or ot wise, someone at the departure point shoul advised of your destination and the route of fl if other than direct. Search efforts are o wasted and rescue is often delayed becaus pilots who thoughtlessly take off without te anyone where they are going.

c. All you need to remember to obtain this valu protection is:

(1) File a Flight Plan with an FAA Flight S ice Station in person or by telephone or r

(2) Close your flight plan.

(3) If you land at a location other than the tended destination, report the landing to nearest FAA Flight Service Station.

(4) If you land en route and are delayed r than 30 min. (15 min. for jets), report information to the nearest FSS.

(5) Remember that if you fail to report wi one-half hour after your ETA, a search be started to locate you.

d. If a crashed aircraft is observed:

(1) Determine if crash is marked with ye cross; if so, crash has already been repo and identified.

(2) Determine, if possible, type and number of craft and whether there is evidence of vivors.

(3) Fix, as accurately as possible, exact loca of crash.

(4) Transmit information to nearest FAA or c appropriate radio facility.

(5) Immediately after landing, make a comp report to nearest FAA, Air Force, or C Guard installation. Report may be mad long distance collect telephone.

e. To assure survival and rescue in the event crash landing the following advice is given:

(1) For flight over uninhabited land areas, wise to take suitable survival equipment pending on type of climate and terrain.

(2) If forced landing occurs at sea, chances survival are governed by degree of crew ficiency in emergency procedures and by e tivesness of water survival equipment.

(3) If it becomes necessary to ditch, distre aircraft should make every effort to ditch i a surface vessel. If time permits, the posi of the nearest vessel can be obtained fro

EARCH AND RESCUE (Con't)

Coast Guard Rescue Coordination Center through the FAA facility.

(4) The rapidity of rescue on land or water will depend on how accurately your position may be determined. If flight plan has been followed and your position is on course, rescue should be prompt.

(5) Unless you have good reason to believe that you will not be located by search aircraft, it is better to remain near your aircraft and prepare means for signalling whenever aircraft approach your position.

f. Search and Rescue facilities include:
(1) Rescue Coordination Centers;
(2) Search and Rescue aircraft;
(3) Rescue vessels;
(4) Pararescue and ground rescue teams;
(5) Emergency radio fixing.

CLOSE YOUR FLIGHT PLAN

a. The control tower does not automatically close flight plans since many of the landing aircraft are not operating on flight plans. It remains the responsibility of a pilot to close his own flight plan. This will prevent a needless search.

NATIONAL SEARCH AND RESCUE PLAN

a. Under the National Search and Rescue Plan, the U.S. Coast Guard is responsible for coordination of search and rescue for the Maritime Region, and the U.S. Air Force is responsible for coordination of search and rescue for the Inland Region. In order to carry out this responsibility, the Air Force and the Coast Guard have established Rescue Coordination Centers to direct search and rescue activities within their regions. This service is available to all persons and property in distress, both civilian and military. Normally, for aircraft incidents, information will be passed to the Rescue Coordination Centers through the appropriate Air Route Traffic Control Center.

Coast Guard Rescue Coordination Centers

Coast Guard Rescue Coordination Centers are served by major radio stations which guard 500 kc (CW) and 2182 kc (voice). In addition, San Francisco and Honolulu guard 8364 kc and 247 Coast Guard units along the sea coasts of the United States and shores of the Great Lakes guard 2182 kc (voice). All of these facilities are available for reporting distress or potential distress. THE CALL "NCU" (CW) or "COAST GUARD" (VOICE) ALERTS ALL COAST GUARD RADIO STATIONS WITHIN RANGE.

ston, Mass.
LA 3-1121

w York, N.Y.
HA 2-5700

rtsmouth, Va.
393-6081

iami, Fla.
FR 9-1871

ew Orleans, La.
JA 2-0103

leveland, Ohio
861-0400

t. Louis, Mo.
MA 1-8145

ong Beach, Calif.
HE 7-2941, HE 6-6268

San Francisco, Calif.
YU 6-5500, YU 6-3873

Seattle, Wash.
MA 4-2902

Juneau, Alaska
6-2680, 6-2681 (Night)

Honolulu, Hawaii
5-0211, 5-8831

Kodiak, Alaska
Naval Station Kodiak
379, 758

San Juan, Puerto Rico
722-2174

Bermuda
1-2173

Air Force Rescue Coordination Centers

Eastern Air Rescue Center

Robins AFB, Ga. ------
926-2781, 926-2782, 926-2783
Area dial code is 912

Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia.

Central Air Rescue Center

Richard-Gebaur AFB, Mo.
DI 5-4400, ext. 7517, 7518 or 7519
ED 1-1200, Belton, Mo.

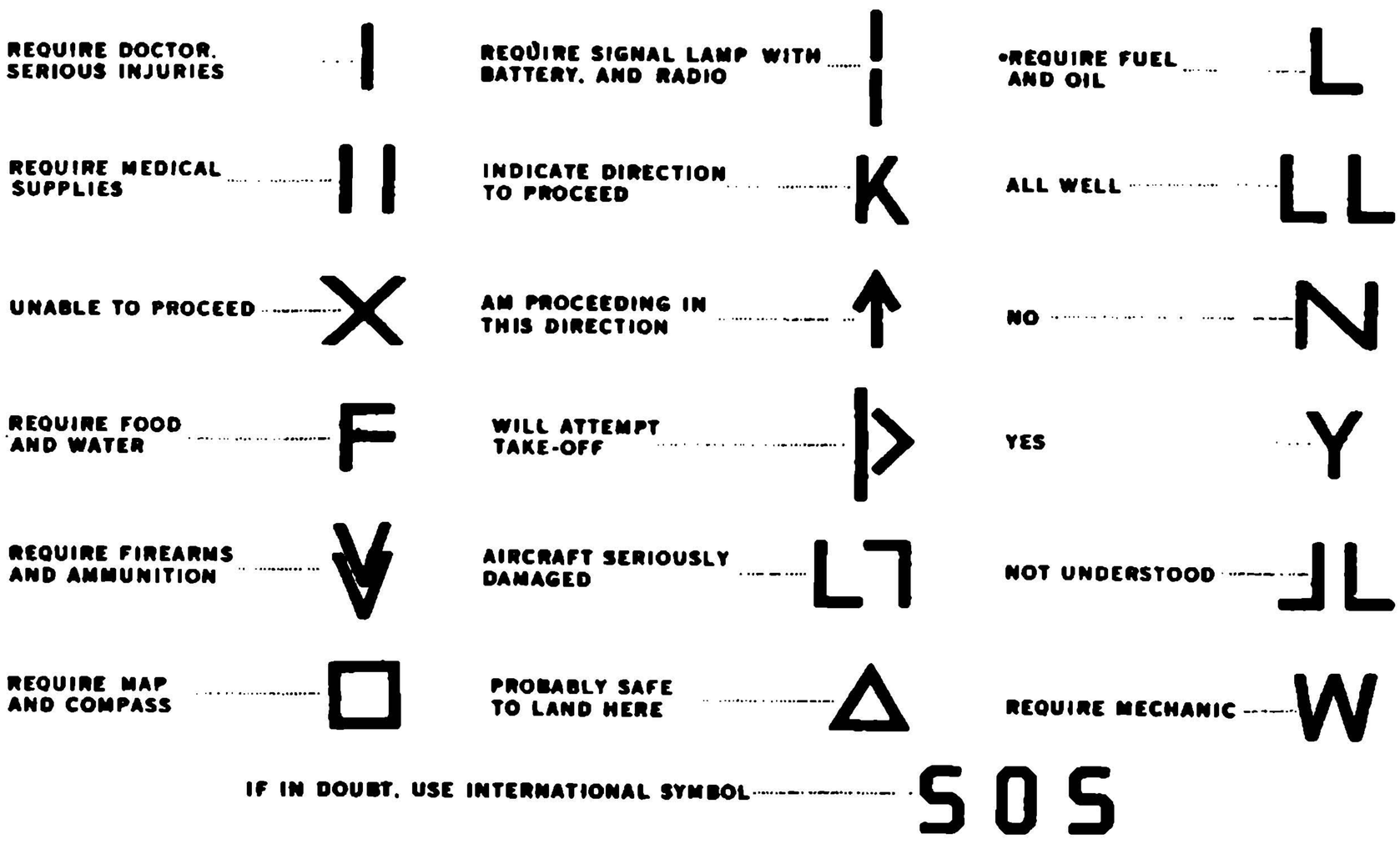
Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin, Wyoming.

Western Air Rescue Center

Hamilton AFB, Calif. --
TU 3-4112, TU 3-7711 ext. 291570
BR 5-0645, SK 2-0227

Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, Elmendorf Air Force Base, Alaska.

GROUND-AIR VISUAL CODE



INSTRUCTIONS

1. Lay out symbols by using strips of fabric or parachutes, pieces of wood, stones, or any available material.
2. Provide as much color contrast as possible between material used for symbols and background against which symbols are exposed.
3. Symbols should be at least 10 feet high or larger. Care should be taken to lay out symbols exactly as shown.
4. In addition to using symbols, every effort is to be made to attract attention by means of radio, flares, smoke, or other available means.
5. On snow covered ground, signals can be made by dragging, shoveling or tramping. Depressed areas forming symbols will appear black from the air.
6. Pilot should acknowledge message by rocking wings from side to side.

GROUND-AIR VISUAL CODE FOR USE BY GROUND SEARCH PARTIES

NO.	MESSAGE	CODE SYMBOL
1	Operation completed.	L L L
2	We have found all personnel.	L L
3	We have found only some personnel.	++
4	We are not able to continue. Returning to base.	X X
5	Have divided into two groups. Each proceeding in direction indicated.	
6	Information received that aircraft is in this direction.	
7	Nothing found. Will continue search.	N N

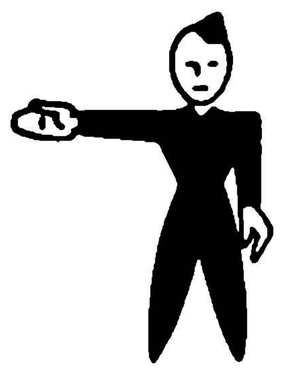
VISUAL EMERGENCY SIGNALS

NEED MEDICAL ASSISTANCE-URGENT

Used only when life is at stake

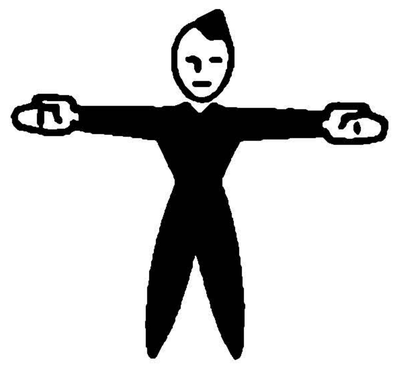
ALL OK-DO NOT WAIT

Wave one arm overhead



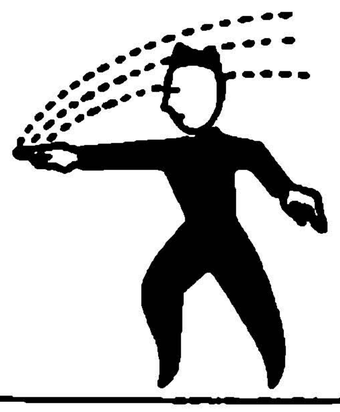
CAN PROCEED SHORTLY-WAIT IF PRACTICABLE

One arm horizontal



NEED MECHANICAL HELP OR PARTS-LONG DELAY

Both arms horizontal

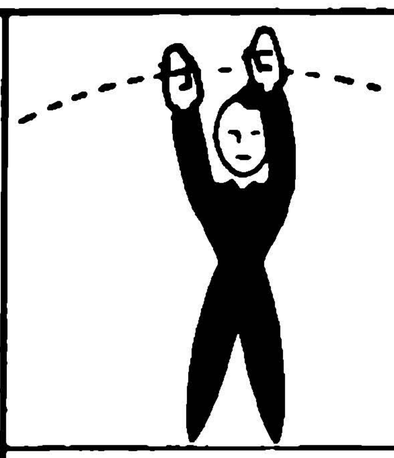


USE DROP MESSAGE

Make throwing motion

OUR RECEIVER IS OPERATING

Cup hands over ears

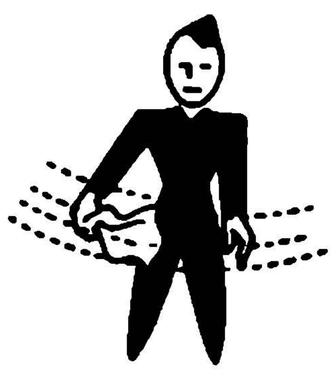


DO NOT ATTEMPT TO LAND HERE

Both arms waved across face

LAND HERE

Both arms forward horizontally, squatting and pointing in direction of landing—Repeat



NEGATIVE (NO)

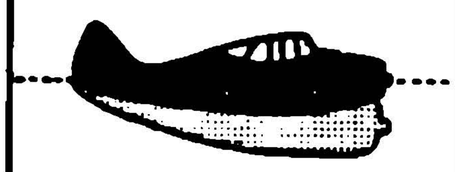
White cloth waved horizontally

AFFIRMATIVE (YES)

White cloth waved vertically

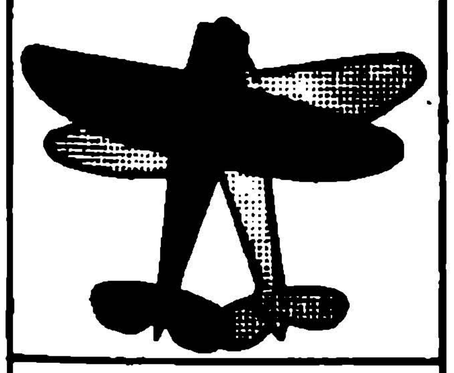
PICK US UP-PLANE ABANDONED

Both arms vertical



AFFIRMATIVE (YES)

Dip nose of plane several times



NEGATIVE (NO)

Fishtail plane

HOW TO USE THEM

If you are forced down and are able to attract the attention of the pilot of a rescue airplane, the body signals illustrated on this page can be used to transmit messages to him as he circles over your location. Stand in the open when you make the signals. Be sure that the background, as seen from the air, is not confusing. Go through the motions slowly and repeat each signal until you are positive that the pilot understands you.

RADIO COMMUNICATIONS FAILURE (F.A.R. PART 91.127)

1. It is virtually impossible to provide regulations and procedures applicable to all possible situations associated with radio communications failure in aircraft. During two-way radio communications failure when confronted with a situation not covered in the regulation, pilots are expected to exercise good judgment in whatever action they elect to take. Should the situation so dictate, they should not be reluctant to use the emergency action contained in FAR Part 91.127. Pilots who experience radio communications failure are urged to listen on any operational radio receiver for information broadcast by Air Traffic Control. Controllers have the capability of transmitting on most navigational facilities and do so where an aircraft communications failure is recognized.

2. In the event of two-way radio communications failure, pilots on an IFR flight plan shall comply with the provisions of FAR Part 91.127, Two-way Radio Communications Failure. The following procedures are provided as a detailed guide for pilots. It is expected that pilots will operate their aircraft in accordance with these procedures in the event of radio failure and ATC service will be provided on the basis that the pilot is operating in accordance with these procedures.

3. **In VFR Conditions**—If able to maintain flight in VFR conditions, continue flight under VFR and land as soon as practicable and notify ATC. It is not intended that the requirement to "land as soon as practicable" to be construed to mean "as soon as possible." The pilot retains his perogative of exercising his best judgment and is not required to land at an unauthorized airport, at an airport unsuitable fo rthe type of aircraft flown, or to land only minutes short of his intended destination. The primary objective of this provision is to preclude extended IFR operations in the air traffic control system .in VFR weather conditions. When operating "on top" and unable to descend VFR prior to the destination, the procedures contained in paragraph 4. are applicable.

4. **In IFR Conditions**—When in IFR conditions, or when unable to descend and land in VFR conditions, the following procedures are applicable.

   a. **Route**

      (1) If cleared to the destination airport or a radio facility serving the destination airport, proceed via the route specified in the last air traffic control clearance received to the radio facility to be used for the approach at the destination airport.

      (2) If cleared to a radio fix short of the radio facility serving the destination airport without holding instructions, *do not hold* but proceed via the route specified in the last air traffic control clearance received, or if no route beyond the clearance limit has been receiv proceed via flight planned route, to the ra facility to be used for the approach at t destination airport.

      (3) If cleared to a radio fix short of the ra facility serving the destination airport w holding instructions and a time to "exp *further* clearance," *hold until the time sp fied* then proceed via routing in accorda with (2) above to the radio facility to be u for the approach at the destination airp

      (4) If cleared to a radio fix short of the ra facility serving the destination airport w holding instructions and a time to "exp *approach* clearance," *hold and depart the so as to arrive over the radio facility to used for the approach at the destination port as nearly as posible to the expected proach clearance time received*, proceedin accordance with (2) above.

      (5) If cleared to a radio fix short of the ra facility serving the destination airport wh is on a route other than the route request ATC will specify a proposed routing bey such clearance limit by stating, "*EXPE FURTHER CLEARANCE VIA (propo routing).*" This proposed routing will spec either a new route to the destination airp or to a point intercepting the flight plan route. In such cases, the proposed rout should be followed in lieu of the flight plan rou'e.

      (6) If a departing flight is cleared via vector, lieu of a specified routing, to fix, radial airway, the flight should proceed by the m direct course possible to the fix, radial airway and then in accordance with two-w radio communications failure procedures.

      (7) If a flight is departing or en route an vector has taken it off the route specified the ATC clearance, the flight should be turned to the route specified in the ATC cl ance by the most direct course possible then proceed in accordance with two-w radio communications failure procedures.

   b. **Altitude**

      (1) If assigned an altitude/flight level in *highest route structure* filed in the flight p or subsequently requested, climb in accorda with the ATC clearance received and t maintain the assigned altitude/flight level the MEA, which ever is higher, to the ra facility to be used for the approach at destination airport.

      (2) If assigned an altitude *below the high route structure* requested, ATC will spec a time or fix at which further clearance be expected to an altitude/flight level wit the highest route structure requested by st ing, "*EXPECT FURTHER CLEARANCE*

RADIO COMMUNICATIONS FAILURE (Con't)

(altitude/flight level) AT (time/fix)." If radio communications *failure occurs prior to receiving a clearance* into the requested route structure,. the expected altitude/flight level should be considered an assigned altitude/flight level and a *climb* en route to the expected altitude should be made *at the time or location specified.*

(3) If assigned an altitude *below the highest route structure* filed or subsequently requested and ATC has not issued an "EXPECT FURTHER CLEARANCE AT (Altitude)," maintain the *assigned altitude/flight level or the MEA, whichever is higher, until 10 minutes after passing the first compulsory reporting point over which the failure prevented communications with Air Traffic Control, unless earlier climb is required by the minimum safe altitude.* Then climb to and maintain the lowest cardinal altitude/flight level at or above the MEA of the highest route structure requested. Cardinal altitudes are thousand-foot levels (15,000', 16,000' etc.). The MEA of the high altitude route structure is Flight Level 180.

(4) If a lower route structure has been specified as the final segment(s) of the route, the pilot should fly a route over the underlying airway maintaining the last assigned altitude/flight level.

(5) *If clearance to descend to an altitude below the highest requested route structure has been* received, *the last assigned altitude or the MEA, whichever is higher, should be maintained* in lieu of climbing back into the highest requested route structure.

(6) If *deviation from the altitude* assigned by Air Traffic Control is necessary in order to comply with a *higher MEA*, any subsequent descent required by a lower MEA shall not be made below the altitude last assigned by Air Traffic Control.

Example:

A flight is cruising at 8,000' (last assigned altitude) on an IFR flight plan when radio communications failure occurs. After passing the next fix, the minimum enroute altitude is 10,000' and climb is made to that altitude. On the last leg of the flight, the minimum enroute altitude is 3,500'. The flight descends back to 8,000' after passing the fix defining the termination of the 10,000' minimum enroute altitude segment since the last assigned altitude (8,000') is higher than the MEA (3,500').

c. Approach

(1) Maintain the enroute altitude/flight level to the radio facility to be used for the approach to the airport. Because of many variable involved, no attempt is made to specify the type approach to be used.

(a) If a *clearance for an approach* at the destination airport *has been received*, comply with the clearance or other instructions and make a descent for landing.

(b) If a *clearance for an approach* at the destination airport *has not been received*, start the descent from the en route altitude or flight level at the expected approach clearance time last received or, if no expected approach clearance time was received start the descent at the estimated time of arrival as indicated by the flight plan and subsequently amended by the pilot with Air Traffic Control, or upon arrival over the radio facility, which ever is later. An approved instrument approach procedure shall be executed unless VFR conditions are encountered and it is possible to continue descent and approach in accordance with VFR.

(c) If an aircraft is operating in accordance with an approach control clearance and has departed the outer fix on a radar vector, the flight should proceed by the most direct course to the radio facility to be used for the approach and thereafter execute an approved instrument approach procedure.

d. Holding

(1) If holding is necessary at the radio facility to be used for the approach at the destination airport:

(a) Holding and descent to the initial altitude for the execution of the instrument approach should be accomplished in a holding pattern on the side of the final approach course on which the procedure turn is prescribed.

(b) Where approved *military jet penetration* procedures have been published for the airport, *holding and descent* to initial penetration altitude/flight level should be accomplished in the *holding pattern in accordance with the procedure depicted on the jet approach and landing chart for that airport.*

5. SPECIAL MILITARY PROCEDURES

a. Aircraft, on a flight in which a delay enroute is planned, shall commence descent at the destination, at the estimated time of arrival (ETA) derived from the estimated time en route (ETE) plus any delay for which an ATC clearance has been obtained.

Example #1:

Point-to-point flight plan from A to B to C to D (airport of destination). Estimated elapsed time enroute specified in flight plan is three

RADIO COMMUNICATIONS FAILURE (Con't)

hours (A to D). Remarks indicate proposed two-hour local flight at B and one-hour local flight at C. On departure, flight is cleared to D (or a short range clearance limit). If radio communications failure is experienced prior to reaching B, flight should proceed to destination in accordance with established radio communications failure procedures. If the flight has obtained an amended clearance authorizing a two-hour delay at B and experiences radio communications failure prior to reaching B or after local flight is begun, local flight at B will be completed. Local flight at C will not be executed.

Example #2:

Round Robin flight plan from Point A to B to C and back to A. Estimated elapsed time enroute specified in flight plan is three hours (A to A). Remarks indicate one hour local flight at B and one hour local flight at A prior to landing. Action governing delay at B would be as indicated in example #1. If the flight is cleared for local flight at A and subsequently experiences radio communications failure, local flight will be completed before beginning letdown.

b. **Aerial Refueling**—Aircraft which have received authorization from ATC to conduct refueling operations involving more than one altitude/flight level and have not received clearance beyond the refueling track should exit the track at the lowest altitude/flight level specified in the clearance for the refueling portion of the flight and proceed in accordance with radio communications failure procedures.

c. **Oil Burner**—Aircraft which have been cleared for descent to the low altitude(s) of the route shall maintain the altitud(s) specified for the route. Aircraft which have not been cleared to descend to the Oil Burner route low altitude(s) s maintain the last assigned altitude/flight level proceed in accordance with radio communicat failure procedures.

d. **Turbojet En Route Penetration**—Aircraft which h been cleared for an en route penetration will ceed to the radio facility to be used for the proach at the destination airport at the last signed altitude or the Minimum Safe Alti whichever is higher and from that altitude exe the published penetration in lieu of climbin the initial penetration altitude.

FUEL JETTISONING

1. Should it become necessary to jettison fuel, the p should immediately advise Air Traffic Control. U receipt of advice that an aircraft will jettison f Air Traffic Control will broadcast or cause to broadcast immediately and every 3 minutes therea on appropriate Air Traffic Control, Flight Service tion and airline company radio frequencies the lowing:

   ADVISORY TO AIRCRAFT NOT ON A CLEARANCE—FUEL DUMPING IN PROGRES (aircraft type) (present position) (course/s) (a tude)—AVOID FLIGHT WITHIN 5 NAUTIC MILES OF FUEL DUMP AIRCRAFT.

2. Upon receipt of such a broadcast, pilots of airc affected, which are not on IFR flight plans or spe VFR clearances, should clear the area specified in advisory. Aircraft on IFR flight plans or spe VFR clearances will be provided specific separa by Air Traffic Control. At the termination of the jettisoning operation, pilots should advise Air Tr Control. Upon receipt of such information, Air T fic Control will issue, on appropriate frequencies, following:

   ADVISORY TO ALL CONCERNED—(airc type) FUEL DUMP TERMINATED.

AIRMAN'S INFORMATION MANUAL

ATC OPERATIONS AND PROCEDURES

SECTION II

MARCH 1965

FEDERAL AVIATION AGENCY

INTRODUCTION

Section II—ATC OPERATIONS AND PROCEDURES

Section II, ATC Operations and Procedures, is designed to serve as an official means of disseminating pertinent air traffic control information of interest to pilots of varied experience levels. The material is presented in layman's language to lessen the ambiguity which sometimes results from individual interpretation of rules, regulations and procedures.

The information published, governing flight operations, air traffic services and procedures within the conterminous United States is arranged and sequenced in accordance with that of a typical flight operation; i.e., preflight, departure, enroute, arrival and landing.

Supplemental to the sequenced flight operations, are supporting general and emergency information and procedures such as U.S. Entry and Departure Requirements, Air Defense Identification Zone (ADIZ) and SCATER procedures.

The Section concludes with Emergency Procedures. These procedures have been consolidated and placed last in the Section for quick and ready reference.

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PREFLIGHT

GENERAL

1. Every pilot is urged to receive a preflight briefing nd to file a flight plan. This briefing would consist of eather, airport, and enroute navaid information. Briefng service may be obtained from a Flight Service Station ither by telephone/interphone, by radio when airborne, r by a personal visit to the Station.

WEATHER BRIEFING

1. Consult your local FAA Flight Service Station FSS) or Weather Bureau Airport Station (WBAS) for reflight weather briefing.

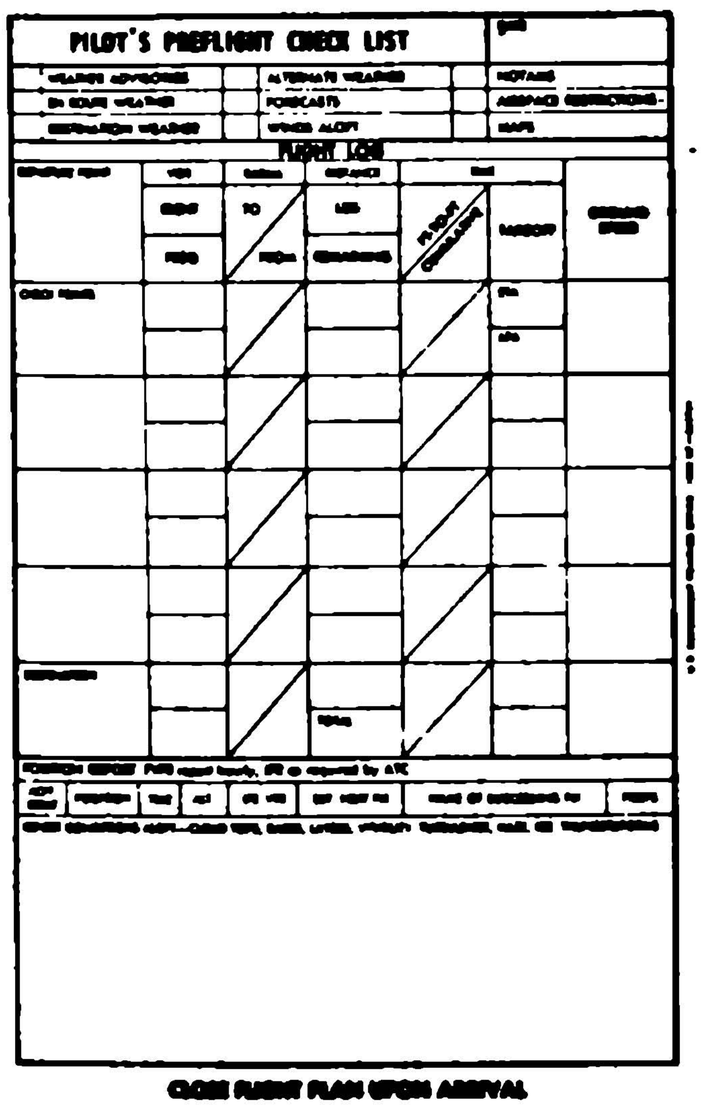
2. When telephoning for information, use the following rocedure:

a. Identify yourself as a pilot. (Many persons callng WB stations want information for purposes other an flying.)

b. State your intended route, destination, proposed eparture time and estimated time en route.

c. Advise if you intend to fly only VFR.

d. When talking to an FSS, you will be asked your ircraft identification for activity record purposes.



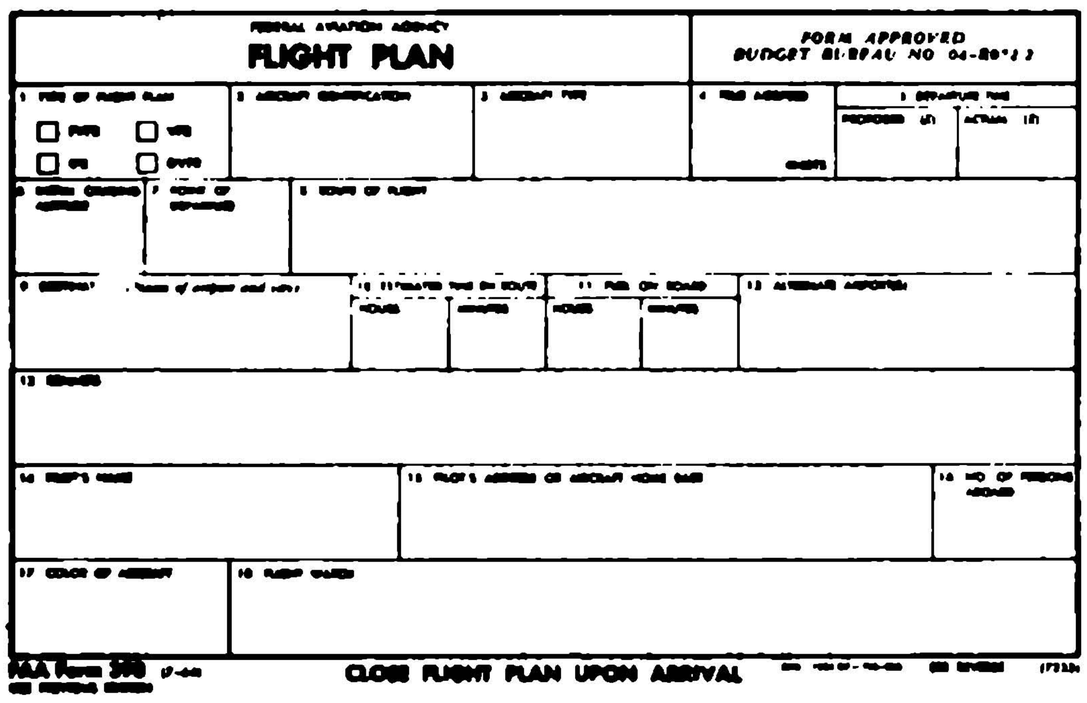
3. You are urged to use the Pilot's Preflight Check List hich is on the reverse of the flight plan form. The heck List is a reminder of items you should be aware of efore beginning flight. Also provided beneath the Check ist is a Flight Log for your use if desired.

FLIGHT PLAN—VFR

1. GENERAL

a. A flight plan is not required for VFR flight, however, it is strongly recommended that one be filed. This not only assures prompt search and rescue action in event you become overdue or missing, but it also permits en route stations and the destination station to render better service by having prior knowledge of your flight. All VFR flights, whether on a flight plan or not, should make regular position reports to FAA Flight Service Stations to receive altimeter settings and weather safety advisories.

b. Flight plan forms are available at all Flight Service Stations. A flight plan may be filed with the nearest Flight Service Station or airport traffic control tower, either in person or by telephone. Aircraft radio may be used to file if no other means are available. Some states operate aeronautical communications stations and most of thes ewill accept flight plans which are then sent to FAA for further handling.



NOTE.—Although FAR 91.83 does not require the information in item 16 for domestic flight, nor that in item 17 for any flight, pilots are urged to furnish this information to assist search and rescue if SAR action is required.

2. DVFR (DEFENSE VFR FLIGHT PLAN)

Detailed ADIZ procedures are found under GENERAL, page II-80

3. COMPOSITE FLIGHT PLAN (VFR & IFR)

a. Flight plans which specify VFR operation for one portion of a flight, and IFR for another portion, will be accepted at the point of departure. If VFR flight is proposed for the first portion of the flight, the pilot should request IFR clearance from (1) the FSS nearest the location at which change from VFR to IFR is proposed; or if unable to contact the FSS, (2) any air traffic control facility. In either case, if a *VFR flight plan* was filed for first portion of flight the pilot is responsible for notifying the FSS or air traffic control facility contacted to "CLOSE

FLIGHT PLAN—VFR (Con't)

VFR FLIGHT PLAN." The pilot must remain in VFR weather conditions until operating in accordance with the IFR clearance.

b. When a flight indicates IFR for the first portion of flight and VFR for the latter portion, the pilot will normally be cleared to the point at which the change is proposed. Once the pilot has reported over the clearance limit and does not desire further IFR clearance, he should advise Air Traffic Control to cancel the IFR portion of his flight plan. Further clearance will not be necessary for VFR flight beyond that point. If the pilot desires to continue his IFR flight plan beyond the clearance limit, he should contact Air Traffic Control at least five minutes prior to the clearance limit and request further IFR clearance. If the requested clearance is not received prior to reaching the clearance limit fix, the pilot will be expected to establish himself in a standard holding pattern on the radial/course to the fix.

4. CLOSING (F.A.R., PART 91.83(a))

VFR and DVFR flight plans must be closed (canceled), or an arrival report filed, within 30 minutes (15 minutes for jets) after the estimated time of arrival. To do this, merely notify the nearest Flight Service Station or air traffic control facility by radio or telephone. If a report is not received within this time, a communications search will be conducted by the FAA facilities along your route. If this search fails to locate your aircraft, a Rescue Coordination Center will be advised and an extensive, costly physical search for your aircraft will be initiated.

FLIGHT PLAN—IFR

1. GENERAL

a. Prior to departure from within, or prior to entering a control area or control zone, a pilot must submit a complete flight plan and receive an air traffic clearance. Instrument flight plans may be submitted to the nearest Flight Service Stations or airport traffic control tower either in person or by telephone (or by radio if no other means are available). Pilots should file IFR flight plans at least 30 minutes prior to estimated time of departure to preclude possible delay in receiving a departure clearance from ATC.

b. When filing a domestic IFR flight plan for flight in an aircraft equipped with a radar beacon transponder, DME equipment, or a combination of both, the pilot shall identify equipment capability by adding a suffix to the identification preceded by a slant, as follws:

AI2346/X	(Transponder, no code)
V23457/T	(Transponder, with code)
NI256/D	(DME)
R39857/L	(DME and transponder, no code)
AA409/B	(DME and transponder with code)

NOTE.—The suffix is not to be transmitted by radio as part of the aircraft identification.

●**c.** If TACAN only equipped, include "TACAN only" in the remarks section of the flight plan.

2. AIRWAYS/JET ROUTES

a. It is vitally important that the route of flight be accurately determined and described in the flight plan to permit accurate plotting and planning by air traffic control. The issuance of air traffic control clearances governing IFR flight within controlled airspace will be predicated on pilot conformance with adherence to ro procedures. To simplify definition of route and to fac tate air traffic control, pilots are requested to file fli plans via VOR Airways or Jet Routes established for at the altitude/flight level planned.

(1) If flight is to be conducted via the designated ways or jet routes, the route may be described by in cating the type and number of the airway(s) or route(s) requested. Federal airways or jet routes, whi ever is appropriate, which cross or merge for short tances with the airway or jet route requested should be indicated.

Example 1:

7000 MSP PRESCOTT V97 LAKEWOOD ORD

Spelled Out: Requesting 7000 feet from Minneapolis Paul International, via Prescott Intersection, Vic 97 to Lakewood Intersection, direct Chicago O'H International.

Example 2:

FL 250 MSP J30 J16 ORD

Spelled Out: Requesting Flight Level 250 Minneap St. Paul International, Jet Route 30, Jet Route to Chicago O'Hare International.

(2) The route of flight may also be described naming the reporting points over which the flight pass, provided the points named are established for at the altitude/flight level planned (see DIRE FLIGHTS below).

Example:

3000 DCA RVD BAL

Spelled Out: Requesting 3000 feet from Washington tional, via direct Riverdale direct Baltimore Frie ship International.

(3) When the route of flight is defined by named porting points, whether alone or in combination with ways or jet routes, and the navigational aids (VO VORTAC, TACAN, LF, RBN) to be used for the flight a combination of different types of aids, enough inform tion should be included to clearly indicate the route quested.

Example:

FL 310 LAX J5 LKV J3 GEG QE FL 330 HL500 HL515 WG

Spelled Out: Requesting Flight Level 310 from Los geles International via Jet Route 5 Lakeway, Route 3 Spokane, direct Kimberly, British Columb Low Frequency Range, Flight Level 330 High Le Airway 500 to Langruth, Manitoba VOR, High Le Airway 515 to Winnepeg, Manitoba.

(4) When filing IFR, it is to the pilots' advanta to file a "preferred route."

3. DIRECT FLIGHTS

a. All or any portions of the route which will not flown on the radials/courses of established airways routes, e.g., direct route flights, must be defined by in cating the radio fixes over which the flight will pa Fixes selected to define the route shall be those over whi the position of the aircraft can be accurately determine Such fixes automatically become compulsory reporti points for the flight, unless advised otherwise by AT Only those navigational aids established for use in particular structure, i.e., in the Low or High structur

FLIGHT PLAN—IFR (Con't)

may be used to define the en route phase of a direct flight within that structure.

●b. The azimuth feature of VOR aids and the azimuth and distance (DME) features of VORTAC/TACAN aids are assigned certain frequency protected areas of airspace which are intended for application to established airway and route use, and to provide guidance for planning flights outside of established airways or routes. These areas of airspace are expressed in terms of cylindrical service volumes of specified dimensions called "class limits" or "categories." An operational service volume has been established for each class in which adequate signal coverage and frequency protection can be assured. To facilitate use of VOR, VORTAC or TACAN aids, consistent with their operational service volume limits, pilot use of such aids for defining a direct route of flight in controlled airspace should not exceed the following:

(1) Operations above Flight Level 450-use aids not more than 200 nautical miles apart. These aids are depicted on the Coast and Geodetic Survey Flight Information Publication En Route High Altitude Chart-U.S.

(2) Operation off established routes from 18,000 feet M.S.L. to Flight Level 450-use aids not more than 260 nautical miles apart. These aids are depicted on the Coast and Geodetic Survey, Flight Information Publication, En Route High Altitude Chart—U.S.

(3) Operation of established airways below 18,000 feet M.S.L.—use aids not more than 80 nautical miles apart. These aids are depicted on the Coast and Geodetic Survey, Flight Information Publication, En Route, Low Altitude Chart—U.S.

c. Airway or jet route numbers, appropriate to the stratum in which operation will be conducted, may also be included to describe portions of the route to be flown.

Example:

140 MDW V6 V10 BRL STJ SLN GCK

Spelled Out: Requesting 14,000 feet Chicago Midway Airport Victor 6, Victor 10, Burlington, Iowa, direct St. Joseph, Missouri, direct Salina, Kansas, direct Garden City, Kansas.

NOTE.—When route of flight is described by radio fixes, the pilot will be expected to fly a direct course between the points named.

4. VFR OPERATIONS ON AN IFR FLIGHT PLAN (Ref. FAA EXAM–O–GRAM No. 6)

a. In preparation for IFR flight above an overcast or in an area of generally unlimited ceilings and visibility, pilots may request "VFR CONDITIONS ON TOP" to permit them to select an altitude, or altitudes of their choice, rather than specific ATC assigned altitudes.

b. Departing instrument-rated pilots who wish an IFR clearance only to climb through a layer of overcast or reduced visibility, and then continue flight VFR may request ATC clearance "TO VFR CONDITIONS ON TOP". This request may be made through a Flight Service Station, by telephone to ATS, or by request to the Tower before taxiing out. The clearance, which authorizes IFR flight through the cloud layer, will contain a near-by clearance limit, routing, and a request to report reaching "VFR CONDITIONS ON TOP". When the pilot reaches "VFR CONDITIONS ON TOP" and desires to cancel the IFR portion of his flight, he should so state. This type of operation can be combined with a VFR Flight Plan to destination.

c. No separation is provided. However, the pilot may expect to receive traffic information on known IFR traffic. Any time a pilot is flying "in the clear," whether at a specific assigned altitude or at an altitude assignment of "VFR CONDITIONS ON TOP", collision avoidance is the pilot's responsibility.

d. Remember that when flying on an IFR clearance with a VFR restriction, a pilot must comply with Instrument Flight Rules plus applicable Visual Flight Rules.

5. CANCELLING

a. IFR flight plans may be canceled any time by so notifying Air Traffic Control, provided the flight is operating in VFR weather conditions when such action is taken. Where conditions indicate that the remainder of the flight can be conducted in accordance with VFR, a pilot may avail himself of this procedure to remove any Air Traffic Control restrictions which may have been issued affecting his flight.

b. An IFR flight plan may be cancelled by delivering the following message to the controller or the air/ground station with which the flight is in communication: "CANCEL MY IFR FLIGHT PLAN." Since Air Traffic Control cannot approve or disapprove cancellation of the IFR flight plan, an acknowledgement that the message has been received is all that is required. If a flight plan has been cancelled and subsequent IFR operation becomes necessary, a new IFR flight plan must be filed and a traffic clearance received before encountering IFR weather conditions.

NOTE.—Where a DVFR flight plan requirement exists it will be the responsibility of the pilot to file this flight plan to replace the cancelled IFR flight plan.

DEPARTURE

COMMUNICATIONS

1. Pilots of departing aircraft should communicate with the control tower on the appropriate ground control frequency for taxi and clearance information and, unless otherwise advised, should remain on that frequency until they are ready to request take-off clearance. At that time, the pilot should communicate with the tower on the appropriate local control frequency.

2. The airport ground control frequencies 121.7 and 121.9 mc are normally provided to eliminate frequency congestion on the tower (local control) frequency. Provision of these frequencies for ground control and their use by aircraft and airport utility vehicles operated on the surface of the airport thus provides a clear VHF channel for arriving and departing aircraft. They are used for issuance of taxi information, clearances, and other necessary contacts between the tower and aircraft or other vehicles operated on the airport. Normally, only one of these ground control frequencies is assigned for use at an airport; however, at locations where the amount of traffic so warrants, both frequencies may be assigned with one or the other designated as a clearance delivery frequency.

3. Where the "ground control" frequency is not available (tower or aircraft), the tower normally will transmit to aircraft over an appropriate ground to air frequency.

4. Pilots of aircraft not equipped to transmit on a ground control frequency should transmit on the tower frequency and tune their receivers to the appropriate ground control frequency in accordance with the above.

NOTE.—See Airport Advisory Service (Non-Radar), under ARRIVAL, for communications procedures at airports not served by control towers.

LIGHT SIGNALS

1. The following procedures are used by airport traffic control towers in the control of aircraft not equipped with radio. These same procedures will be used to control aircraft equipped with radio if radio contact cannot be established. Airport traffic control personnel use a directive traffic control signal which emits an intense narrow beam of a selected color (either red, white, or green) when controlling traffic by light signals. Although the traffic signal light offers the advantage that some control may be exercised over non-radio equipped aircraft, pilots should be cognizant of the disadvantages which are:

a. The pilot may not be looking at the control tower at the time a signal is directed toward him.

b. The directions transmitted by a light signal are very limited since only approval or disapproval of a pilot's anticipated actions may be transmitted except by the use of the "General Warning Signal" which advises the pilot to be on the alert.

2. Portable traffic control light signals:

Color and Type of Signal	On the Ground	In Flight
STEADY GREEN	Cleared for take-off	Cleared to lar
FLASHING GREEN	Cleared to taxi	Return for landi (to be followe by steady gre at proper time
STEADY RED	Stop	Give way to oth aircraft and co tinue circling
FLASHING RED	Taxi clear of landing area (runway) in use	Airport unsafe—d not land
FLASHING WHITE	Return to starting point on airport	
ALTERNATING RED & GREEN	General Warning Signal—Exercise Extreme Caution	

3. Between sunset and sunrise, a pilot wishing to tract the attention of the air traffic control tower opera should turn on a landing light and taxi the aircraft position so that light is visible to the tower operator. T landing light should remain on until appropriate sign are received from the tower.

4. Pilots should acknowledge light signals by movi the ailerons or rudder during the hours of daylight or blinking the landing or navigation lights during the hou of darkness.

5. During the hours of daylight the lighting of the tating beacon will mean that ground visibility is less th three miles and/or that the ceiling is less than 1000 fe During the hours of darkness, flashing lights outlini the traffic direction indicator (tetrahedron, wind tee other device) will mean that ground visibility is less th three miles and/or the ceiling is below 1000 feet. T lighting of either of these signals indicates that a cle ance from Air Traffic Control is necessary for landi take-off, or flight in the traffic pattern if the airport within a control zone.

CLEARANCE

NOTE.—Refer to Airport Advisory Service (Nonradar), under ARRIVAL, for additional "clearance" information.

1. TAXI

a. A clearance must be obtained prior to taxiing on a runway, taking off or landing during the hours an airport traffic control tower is in operation. Authorization to taxi "to" a runway is authorization to cross runways that intersect the taxi route unless instructions to the contrary are received. Authorization to taxi "to" a runway does not constitute a clearance to taxi "on" that runway.

b. At those airports where the United States Government operates the control tower and ATC has authorized non-compliance with the requirement for two-way radio communications while operating within the airport traffic area, or at those airports where the United States Government does not operate the control tower and radio communications cannot be established, pilots shall obtain a clearance by visual light signal prior to taxiing on a runway and prior to take-off and landing. The following phraseologies and procedures are used in radio-telephone communications with aeronautical ground stations.

c. Aircraft identification, location, type of operation planned (VFR or IFR) and the point of first intended landing.

Example:

Aircraft: "WASHINGTON GROUND CONTROL, THIS IS BEECHCRAFT ONE THREE ONE FIVE NINER AT HANGAR EIGHT, READY TO TAXI, INSTRUMENT FLIGHT TO CHICAGO, OVER"

Tower: "BEECHCRAFT ONE THREE ONE FIVE NINER, RUNWAY THREE SIX, WIND ZERO THREE ZERO DEGREES AT TWO FIVE, ALTIMETER THREE ZERO ZERO FOUR, TIME ONE FOUR TWO SIX GREENWICH, ZERO NINER TWO SIX EASTERN. TAXI SOUTH HOLD SHORT OF RUNWAY THREE." (Runways are numberer to correspond to their magnetic bearing. Runway 27, for example, has a bearing of 270°. Wind directions issued by control towers are also magnetic.) Air route traffic control clearances are relayed to pilots by airport traffic controllers in the following manner:

Example:

Tower: "ATC CLEARS BEECHCRAFT ONE THREE ONE FIVE NINER TO THE CHICAGO MIDWAY AIRPORT, VIA VICTOR EIGHT, MAINTAIN EIGHT THOUSAND, OVER."

Aircraft: "BEECHCRAFT ONE THREE ONE FIVE NINER IS CLEARED TO THE CHICAGO MIDWAY AIRPORT, VIA VICTOR EIGHT, MAINTAIN EIGHT THOUSAND, OVER."

NOTE.—Normally, an ATC IFR clearance is relayed to a pilot by the ground controller. At busy locations, however, pilots may be instructed by the ground controller to "CONTACT CLEARANCE DELIVERY" on a frequency designated for this purpose. No surveillance or control over the movement of traffic is exercised by this position of operation.

2. TAKEOFF

a. Withholding Take-Off Clearance

(1) Take-off clearance will be denied to the pilot of any air carrier or commercial aircraft carrying passengers or property for compensation or hire whenever:

● (a) The runway visual range (RVR) for the departure runway is less than 1600 feet at those locations which have runway visual range digital displays.

(b) If RVR is not available, runway visibility for the departure runway is less than one quarter of a mile; or

(c) If neither RVR nor reported runway visibility is available, the prevailing visibility for the airport of departure is less than one quarter of a mile.

(2) If, upon being refused a take-off clearance, a pilot of an aircraft in the above category advises he is not carrying passengers or property for compensation or hire, for examp'e, business aircraft carrying company employees or an air carrier aircraft on a ferrying or training flight, take-off clearance may be authorized based on traffic conditions.

b. Air Traffic Clearance/Instruction

(1) When air traffic control issues a clearance, pilots are expected to execute its provision after acceptance. Any clearance in which the time of pilot execution is optional will so state—"At pilot discretion."

(2) When air traffic control issues an instruction, pilots are expected to comply with its provision upon receipt. ATC, in certain situations, will include the word "IMMEDIATELY" in an instruction to impress urgency of an imminent situation and expeditious compliance by the pilot is expected and necessary for safety.

(3) Traffic clearances will only provide standard separation between IFR flights. *During the time an IFR flight is operating in VFR weather conditions, it is the direct responsibility of the pilot to avoid other aircraft, since VFR flights may be operating in the same area without the knowledge of ATC.*

(4) Air Traffic Control will not issue clearances specifying that climb or descent or any portion of the flight be conducted in "VFR conditions," to any IFR flight, regardless of altitude, except under emergency situations, or unless specifically requested by the pilot. When a VFR restriction is issued at the pilot's request, general traffic information will be issued to the pilot of an aircraft operating with a clearance specifying a "VFR conditions" restriction for climb or descent.

(5) A traffic clearance originated by an ARTC Center and relayed to the pilot through a control or air/ground communication station will be prefixed by "ATC CLEARS." Other ATC messages which are originated by a center will be prefixed with "ATC REQUESTS" or "ATC ADVISES."

(6) The traffic clearance issued prior to departure will normally authorize flight to the airport of intended landing. Under certain conditions, at some locations a short range clearance procedure is utilized whereby a clearance is issued to a fix within or just outside of the terminal area and the pilot is advised of the frequency on which he will receive the long range clearance direct from the center controller.

(7) ATC facilities will use the phrase "VIA FLIGHT PLANNED ROUTE" in air traffic clearances to replace the lengthier detailed description of any portion of the route of flight that is identical to the route filed by the pilot. When used, the phrase will be preceeded by sufficient detailed route of flight information to establish the flight on the filed route. The *"VIA FLIGHT PLANNED ROUTE" phraseology does not include ap-*

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proval of altitudes filed in the flight plan. Specific altitude assignments will be issued in each clearance. Approval of any change of altitude, whether such altitude is contained in the flight plan or is subsequently desired en route, should be requested prior to reaching the point at which it is desired to make the change. IFR flight plans filed by the pilots should contain the complete route of flight and should be relayed to Air Traffic Control unchanged. Pilots may request route verification when considered necessary and are requested to do so whenever a filed route has been changed prior to departure. If route verification is desired prior to departure, the request should be included with initial call for taxi clearance to avoid delay in receiving the information.

(8) Amendments to the initial clearance will be issued at any time an air traffic controller deems such action necessary to avoid possible confliction between aircraft. Clearances will require that a flight "hold" or change altitude prior to reaching the point where standard separation from other IFR traffic would no longer exist. Some pilots have questioned this action and requested "traffic information" and were at a loss when the reply indicated "no traffic reported." In such cases the controller has taken action to prevent a traffic confliction whoch would have occurred at a distant point .

(9) A pilot may wish an explanation of the handling of his flight at the time of occurrence; however, controllers are not able to take time from their immediate control duties nor can they afford to overload the ATC communications channels to furnish explanations. Pilots may obtain an explanation by directing a letter or telephone call to the chief controller of the facility involved.

(10) Clearances are normally issued for the altitude/flight level and route filed by the pilot. However, due to traffic conditions, it is frequently necessary for ATC to specify an altitude/flight level or route different from that requested by the pilot. In addition, flow patterns have been established in certain congested areas, or between congested areas, whereby traffic capacity is increased by routing all traffic on preferred routes. Information on these flow patterns is available in offices where pre-flight briefing is furnished or where flight plans are accepted.

(11) The pilot has the privileges of requesting a different clearance from that which has been issued by ATC if he feels that he has information which would make another course of action more practicable or if aircraft forbid compliance with the clearance issued.

(12) Whenever an aircraft has been cleared to a point other than the destination airport, it is the responsibility of the ATC controller to furnish the pilot (or the air/ground communications facility concerned) with an additional clearance prior to the time the flight arrives at the clearance limit. This clearance may authorize flight beyond the clearance limit or contain holding instructions for the flight. However, when such clearance is not received by the time a flight is three minutes from the clearance limit the pilot is expected to effect speed reduction so as to cross the clearance limit initially at or below maxinum holding speed (unless subsequent clearance prior to reaching the clearance limit permits flight beyond it) ; and when reaching the clearance limit, begin holding in a STANDARD HOLDING PATTERN ON THE COURSE ON WHICH HE APPROACHES THE FIX (disregarding any other pattern shown for the fi maintaining the last assigned altitude/flight level a immediately request further clearance through the a ground station. The altitude/flight level of the aircr at this clearance limit will be protected so that sepa tion will exist in the event the aircraft holds await further clearance.

NOTE.—The foregoing should not be construed as be related in any way to the procedures which apply whe two-way radio failure occurs.

(13) Pilots should pay particular attention to clearance and not assume that the route and altitu flight level are the same as requested in the flight pl It is suggested that pilots make a written record of cle ances at the time they are received, and verify, by repeat back, any portions that are complex or about wh a doubt exists.

c. Special VFR Flight Clearance Procedures (F.A.R. Part 91.1

(1) An Air Traffic Control clearance is necessary avoid collision when operating under special VFR weat minimums in a control zone. When a control tower located within the control zone, a clearance must be tained from the tower before entering the control zo If no control tower is located within the control zo a clearance must be obtained from the nearest tow center, or Flight Service Station, prior to entering t control zone. In this instance, clearance arrangemer can be made by telephone.

(2) It is not necessary to file a complete flight pl with the request for clearance but the pilot should st his intentions in sufficient detail to permit air traffic c trol to fit his flight into the traffic flow. The clearar will not contain a specific altitude as the pilot must main clear of clouds. The controller may require t pilot to fly at or below a certain altitude due to otl traffic, but the altitude specified will permit flight at above the minimum safe altitude. In addition, at rad locations, flights may be vectored if necessary for cont purposes or on pilot request .

3. STANDARD INSTRUMENT DEPARTURES (SIDS)

a. A Standard Instrument Departure (SID) is an traffic control coded departure routing which has be established at certain airports to simplify clearance d livery procedures.

b. Pilots of air carrier or military aircraft operati under Instrument Flight Rules (IFR) at airports f which SIDs have been published may be issued clearanc whenever ATC determines it is appropriate.

c. Pilots of other than air carrier or military aircr operating under Instrument Flight Rules (IFR) at a ports for which SIDs have been published will not issued a SID clearance by ATC unless requested by t pilot.

●d. It will be the responsibility of each pilot to acce or refuse the clearance issued.

e. SIDs are published by the Coast & Geodetic Surv as a part of the Flight Information Publication packag

4. ADHERENCE TO AIR TRAFFIC CLEARANCE

a. When air traffic clearance has been obtained und either the Visual or Instrument Flight Rules, the pilot i command of the aircraft shall not deviate from the pr visions thereof unless an amended clearance is obtaine

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The addition of a VFR or other restriction, i.e., climb/descent point or time, crossing altitude etc., does not authorize a pilot to deviate from the route of flight or any other provision of the air traffic control clearance.

b. The most important and guiding principal to remember is that the last ATC clearance has precedence over related portions of the previous ATC clearance. A clearance which amends an altitude of a previous clearance does not affect route of flight nor does a clearance which amends the route of flight affect the altitude portion of a previous clearance.

Example: A departure flight receives a clearance to destination airport to maintain Flight Level 290. The clearance incorporates a SID which has certain altitude crossing instructions. Shortly after take-off, the pilot receives a new clearance changing the maintaining Flight Level from 290 to 250. In this instance, altitude restrictions are automatically canceled and the pilot should commence an unrestrictive climb to Flight Level 250. If the controller had wished to retain the altitude restrictions, he would have either restated them or made it clear in the language of the clearance that only the final maintaining level was being changed.

c. In case emergency authority is used to deviate from provisions of an ATC clearance the pilot in command shall notify ATC as soon as possible and obtain an amended clearance. In an emergency situation which results in no deviation from the Rules prescribed in Part 91 but which requires air traffic control to give priority to an aircraft, the pilot of such aircraft shall make a report within 48 hours of such emergency situation to the nearest FAA Regional Office.

d. In addition to altitude/flight level destination and/or route changes, increasing or decreasing the speed of an aircraft constitutes a change in a flight plan. Therefore, if any time the average true airspeed at cruising altitude between reporting points varies or is expected to vary from that given in the flight plan by *plus or minus ten knots*, air traffic control should be advised.

e. Air traffic clearances include data to assist pilots in identifying radio reporting points for where there is more than one type with the same name, for example: "Denver VOR." It is the responsibility of a pilot to notify air traffic control immediately if his radio equipment cannot receive the type of signals he must utilize to comply with his clearance.

f. The altitude/flight level instructions in an ATC clearance normally require that a pilot "MAINTAIN" the he altitude/flight level at which the flight will operate when in controlled airspace. Altitude/flight level changes while en route should be requested prior to the time the change is desired.

g. The term "CRUISE" may be used instead of "MAINTAIN" to signify to the pilot that descent from cruising altitude may be commenced at his discretion without further clearance from ATC. "CRUISE" is normally used only for relatively short flights in uncongested areas and is authorization for the flight to proceed to, and make an approach at, destination.

5. SEPARATION STANDARDS

a. Air traffic control effects separation of aircraft vertically by assigning different altitudes; longitudinally by providing a minimum time separation between aircraft on the same courses; and laterally by assigning different flight paths.

b. Standard separation will be provided between all aircraft operating on IFR flight plans except: (1) when "VFR" Conditions-On-Top" has been requested by a pilot and authorized by ATC in lieu of a specific cruising or holding altitude, and (2) when clearances specifying that climb or descent or any portion of the flight shall be conducted in "VFR Conditions" are issued.

DEPARTURE CONTROL

1. Departure Control is a tower-function responsible for ensuring separation between departures. So as to expedite the handling of departures, Departure Control may suggest a take-off direction other than that which may normally have been used under VFR handling. Many times it is preferred to offer the pilot a runway that will require the fewest turns after take-off to place the pilot on his filed course or selected departure route as quickly as possible. At many locations particular attention is paid to the use of preferential runways for local noise abatement programs, and route departures away from congested areas.

2. Departure Control utilizing radar will normally clear aircraft out of the terminal area using standard instrument departures via radio navigation aids. When a departure is to be vectored immediately following take-off, the pilot will be advised prior to take-off of the initial heading to be flown. When given a vector taking his aircraft off a previously assigned nonradar route, the pilot will be advised briefly what the vector is to achieve. Thereafter, radar service will be provided until the aircraft has been re-established "on-course" using an appropriate navigation aid and the pilot has been advised of his position; or, a handoff is made to another radar controller with further surveillance capabilities.

3. Controllers will inform pilots of the departure control frequencies and, if appropriate, the transponder code before take-off. Pilots should not operate their transponder until ready to start the take-off roll or change to the departure control frequency until required.

ENROUTE

AIRWAYS/ROUTE SYSTEMS

1. Two route systems have been established for air navigational purposes in the continguous 48 states; the VOR and L/MF System and the Jet Route System.

a. The VOR and L/MF Airway System consists of airways designated from 700 feet above the surface (or in some instances higher) to but not including 18,000 feet MSL and is designed to serve aircraft which operate at these altitudes. These airways are depicted on Coast and Geodetic Survey, Flight Information Publications, En Route Low Altitude Charts—U.S. Series L–1 through L–28.

(1) The VOR airways are predicated solely on VOR/VORTAC navigation aids and are depicted on aeronautical charts by a "V" ("Victor") followed by the airway number, e.g., V 12. These airways are numbered similarly to U.S. highways. As in the highway numbering system, a segment of an airway which is common to two or more routes carries the numbers of all the airways which coincide for that segment. When such is the case a pilot in filing a flight plan needs to indicate only that airway number of the route which he is using. *Alternate Airways* are identified by their location with respect to the associated main airway. "Victor 9 West" indicates an alternate airway associated with, and lying to the west of Victor 9. As in the interstate highway system, major metropolitan areas, in many instances, are connected by *preferred routes* of flight which may include many numbered airway segments. To facilitate flight planning and to reduce phraseology, these preferred routes are assigned an 800 series airway number. Accordingly, a pilot in filing a flight plan need only to indicate the 800 series airway number assigned to the route he is using.

(2) One of the major reasons for establishing a VOR airway system separate from the colored airway system (L/MF) is to facilitate route identification in flight plans and air traffic clearances. A pilot who intends to make an airway flight, using VOR facilities, will simply specify the appropriate "Victor" airway(s) in his flight plan. For example, if a flight is to be made from Chicago to New Orleans at 8000 feet, using omniranges only, the route may be indicated as "Departing from Chicago-Midway, cruising 8000 feet via Victor 9 to Moisant International." If flight is to be conducted in part by means of L/MF navigation aids and in part on omniranges, specifications of the appropriate colored airways and Victor airways in the flight plan will indicate which types of facilities will be used along the described routes, and, for IFR flight, permit ATC to issue a traffic clearance accordingly. As an example, route information for a flight from Chicago to New Orleans using L/MF facilities to St. Louis and VOR's to New Orleans would be given as "Departing Chicago-Midway cruising 8000 feet via Red 14, Amber 5 to St. Louis Victor 9 to Moisant International." A route may also be described by specifying the station over which the flight will pass, but in this case since many VOR's and L/MF aids have the sa name, the pilot must be careful to indicate which aid w be used as a particular location. This will be indicat in the route of flight portion of the flight plan by speci ing the type of facility to be used after the location na in the following manner: Newark L/MF, Allentown VC

(3) With respect to position reporting, compuls reporting points are designated for VOR Airway Syste Flights using Victor Airways will report over these poi only, unless requested otherwise by ATC to furnish ad tional position reports.

(4) The L/MF airways are predicated solely L/MF navigation aids and are depicted on aeronauti charts by color and number; e.g., Amber One. Green a Red airways are plotted east and west. Amber and Bl airways are plotted north and south. This obsolete s tem, which is incompatible with the VOR system, almost entirely replaced by the VOR airway system.

b. The Jet Route System consists of jet routes est lished from 18,000 feet MSL to FL 450 inclusive design to serve aircraft which customarily operate at the altitudes.

(1) Jet routes are based on VOR, VOR-DME a VORTAC facilities shown on high altitude charts. Th are identified by the letter "J" followed by a numb This structure is depicted on Coast and Geodetic Surv Flight Information En Route High Altitude Charts U.S. Series H–1 through H–4.

(2) Operation above FL 450 may be conducted a point-to-point basis. Navigational guidance is provid on an area basis utilizing those facilities depicted on t Coast and Geodetic Survey, Flight Information Publi tion En Route High Altitude Charts—U.S. Series H through H–4.

2. To the extent possible, these route systems have be aligned in an overlying manner to facilitate transiti between each. To simplify definition of route and facilitate air traffic control ,pilots are requested to f via the airways/jet routes published for the altitud flight level planned.

3. **Pilots are cautioned when flying in Canadian airspace, review Canadian Air Regulations.** Special attention shou be given to the parts which differ from U.S. Federal A ation Regulations. For example, the Canadian airwa "Block Airspace" restriction, which requires an A clearance when flying on airways between 9500′ a 23,000′ MSL east of longitude 114°W and between 12,5 and 23,000′ MSL west of longitude 114°W. In additi no person holding a commercial or private pilot licen without an instrument rating shall operate an aircra in VFR flight within block airspace unless he has succe fully completed a written examination demonstrating k knowledge of radio navigation and of air traffic contr procedures applicable to IFR flight including clearan and position reports and his license is endorsed to th effect by the Canadian Department of Transport.

CONTINENTAL CONTROL AREA

1. The Continental Control Area consists of the airspace of the 48 contiguous states and the District of Columbia at and above 14,500 feet MSL, but does not include:

a. The airspace less than 1500 feet above the surface of the earth; or

b. Prohibited and restricted areas, other than restricted area military climb corridors and the restricted areas listed in Subpart D of Part 71 of the F.A.R.

2. To alleviate the risk of collision between the high performance aircraft using this airspace, VFR minimums have been increased to: visibility, 5 miles; distance from clouds, 1000 feet under, 1000 over, and one mile horizontally.

POSITIVE CONTROL AREA

1. Airspace so designated wherein all aircraft are controlled. For operations within positive control areas, aircraft must be:

a. Operated under IFR at specified altitude assigned by ATC.

b. Equipped with instruments and equipment required for IFR operations and is flown by a pilot rated for instrument flight:

c. Equipped with a coded radar beacon transponder, having a Mode A (military Mode 3) 64 code capability, reply to Mode 3/A interrogation with the code specified by ATC; and

d. Radio equipped to provide direct pilot/controller communication on the frequency specified by ATC for the area concerned.

2. ATC may authorize deviations from the above requirements for operation in a positive control area. In the case of in-flight failure of a radar beacon transponder, ATC may immediately approve operation within a positive contro larea. In all other cases, requests for an authorization to deviate must be submitted at least four days before the proposed operation, in writing, to the ARTC Center having jurisdiction over the positive control area concerned. ATC may authorize deviations on a continuing basis or for an individual flight, as appropriate.

JET ADVISORY SERVICE

1. GENERAL

a. Jet Advisory Service has been established as a means of providing an increased degree of safety for civil air carrier turbojet and certain other civil flights. In radar jet advisory areas, this service is performed by selected radar equipped facilities and provides the pilots of civil air carrier turbojet and certain other civil flights with information intended to aid them to see and/or avoid other pertinent traffic. In nonradar jet advisory areas, civil air carrier turbojet and certain other civil flights receiving this service are afforded standard IFR separation from all other flights known by ATC to be operating within these areas. Although standard ATC separation is provided between aircraft receiving jet advisory service and all other aircraft within the nonradar jet advisory area, standard separation is not provided and may not exist between such aircraft and aircraft operating VFR or VFR conditions-on-top outside the area.

b. This service is provided to all civil air carrier turbojet flights. It is proffered by the appropriate ATC facility to other IFR civil flights, excluding those cleared to maintain "VFR conditions" or "VFR conditions-on-top," which are radar beacon equipped and cleared via jet routes along which jet advisory areas are prescribed; except that, jet advisory service is not provided to flights, other than civil air carrier turbojets, whose pilots have declined the service. Whenever workload will not permit provision of this service to all flights specified herein, it may be discontinued to flights other than civil air carrier turbojets. In such event, pilots of those flights affected will be so advised.

c. Except where positive control areas have been established, radar jet advisory areas consist of airspace prescribed not more than 16 statute miles on either side of specified jet routes, and in certain control areas and control area extensions, between Flight Levels 240 and 410 inclusive. Due to limited vertical radar coverage, however, the lower limits may be established above the Flight Level 240 and therefore, may overlie nonradar jet advisory areas. When radar jet advisory areas are established above nonradar jet advisory areas, the nonradar jet advisory areas are limited to levels below the radar jet advisory areas.

2. DEFINITIONS

Jet advisory service—The service provided certain civil flights while operating within radar and nonradar jet advisory areas. Within radar jet advisory areas, civil flights receiving this service are provided radar flight following, radar traffic information and vectors around observed traffic. In nonradar jet advisory areas, civil flights receiving this service are afforded standard IFR separation from all other flights known to ATC to be operating within these areas.

Radar flight following—The radar tracking of identified aircraft targets and the observation of the progress of such flights sufficiently to perform a particular radar function.

Radar traffic information—Any aircraft observed on the radar scope which in the judgment of the controller appears to constitute a hazard to the operation of flight being provided jet advisory service.

NOTE.—Radar jet advisory areas and nonradar jet advisory areas and the flight levels comprising these areas are depicted on En Route-High Altitude Charts, U.S.

3. JET ADVISORY AREA PROCEDURES

a. F.A.R. Part 91.99 requires an aircraft equipped with a functioning Mode 3/A radar beacon transponder, to operate the transponder on the code specified by ATC. This regulation imposes no additional operational restriction, control or communications requirements on non-air carrier civil or military VFR flights or IFR flights cleared to climb or descend in VFR conditions or cleared to maintain VFR conditions-on-top when operating within radar jet advisory areas.

(1) To comply with the transponder requirements, transponders shall be adjusted as outlined in "Air Traffic Control Radar Beacon System (ATCRBS)."

NOTE.—Although charts may show radar jet advisory areas overlapping restricted airspace, pilots of aircraft conducting authorized operations within such airspace are not required to operate transponders during the time such airspace is being utilized for the purpose for which designated; however, operation of transponders as described above is

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encouraged. Flights authorized by the air traffic control facility (controlling agency) to operate through or within such airspace, or flights leaving such airspace to enter a radar jet advisory area are required to operate transponders as described above.

b. Pilots of aircraft not equipped with functioning coded beacon transponders desiring to operate within radar jet advisory areas when operating VFR, or IFR when cleared to climb or descend in VFR conditions or to maintain VFR conditions-on-top, must obtain specific authorization from the appropriate ARTC Center prior to the time of entering such areas. ATC clearances specifying climb or descent in VFR conditions or a cruising level of VFR conditions-on-top, but not including specific authorization to operate within or across radar jet advisory areas, do not constitute such approval.

c. In the event of two-way communications failure which precludes obtaining authorization to operate within a radar jet advisory area, the flight may:

(1) When IFR—operate within a radar jet advisory area provided a specific altitude has been assigned by ATC.

(2) When VFR—operate within a radar jet advisory area provided an appropriate VFR cruising flight level is maintained.

4. SERVICE PROVIDED CIVIL AIR CARRIER TURBOJET AND CERTAIN OTHER CIVIL FLIGHTS WITHIN AREAS OF RADAR COVERAGE

a. Civil air carrier turbojet and certain other civil flights, as described in Paragraph 1.b above, are provided service as follows:

(1) Within radar jet advisory areas, flights are radar flight followed and furnished traffic information and vectors, subject to limitations set forth below, to avoid traffic observed with radar.

(2) Within positive control airspace, jet advisory service is not provided and procedures prescribed for control of traffic within such airspace apply.

(3) Outside radar jet advisory areas and positive control airspace, IFR flights are radar flight followed and furnished radar traffic information at all altitudes and flight levels to the maximum extent practicable consistent with controller workload and limitations of the radar equipment.

b. Primary radar is utilized at all times, unless precipitation or electronic countermeasure interference or other conditions render it unusable. Radar beacon is utilized for identification, radar handoff and primary radar target reinforcement to the maximum extent practicable. In the event either the primary radar or the radar beacon system is unusable, service is continued with that system which is still usable, and pilots are advised accordingly.

NOTE.—Due to the fact that coverage patterns obtained from primary radar and radar beacon may not be the same in all areas, even though their antennas are co-located, it is possible that this service will be provided in areas from which only primary radar or radar beacon returns are being received. If both systems are operating normally the pilot will not be advised of these circumstances.

c. Radar handoff of flights receiving this service is effected at all times above Flight Level 240 within overlapping radar coverage, unless the controller is prevented from doing so by circumstances beyond his control. Radar handoff of these flights below Flight Level 240 effected to the extent permitted by equipment, train personnel and traffic conditions.

d. Traffic information furnished flights receiving tl service includes, to the extent practicable, informati as to whether observed radar traffic is seen with rad beacon, and if the type aircraft is unknown, by the r of the words "fast" or "slow," advice on the relati speed of the observed radar traffic.

e. Whenever, in the opinion of the jet advisory c troller, an observed primary radar or beacon aircr target is on a course which is likely to cause it to mer with or touch the target of the flight receiving this se ice, that flight is vectored to avoid the observed traf insofar as possible, whether or not the pilot reque vectoring, except that:

(1) Whenever feasible, flights not receiving this se ice, but radar identified and in communication with t jet advisory controller, may be vectored to avoid the flig being provided the service.

(2) If the pilot of the flight being provided this ser ice advises that he does not desire vectoring, the c troller does not provide radar vectors but will contin to provide traffic information.

(3) If the pilot of the flight being provided this ser ice advises that he has the potentially conflicting traf in sight, radar vectors are not given.

(4) Flights receiving this service are not vector to avoid nonbeacon targets which are judged by the co troller to be slow moving, unless specifically request by the pilot; however, traffic information regarding suc flights is furnished.

(5) Flights receiving this service are not vector to avoid other IFR flights that are in communication wi the jet advisory controller; are radar identified; ar are being afforded nonradar IFR separation from the flights. When such flights are operating at assigne flight levels which differ by 2,000 feet or less from tl assigned flight level of the flight being provided this ser ice and the radar flight paths of these aircraft are suc that, in the opinion of the controller, a vector would l necessary if altitude separation did not exist, the contro ler will issue traffic information, including assigned flig levels, to both aircraft concerned.

(6) When a concentration of targets is observed l the jet advisory controller which precludes vectoring t avoid individual targets, pilots of flights receiving th service are advised of the traffic, and that vectors canno be given from individual targets. They are also told th extent of vectoring that would be necessary to avoid th area in which said traffic exists. Should a pilot reque to be vectored around that area, the request will be com plied with, provided it is within usable radar coverag Should he not request vectoring around the area, he wi be advised when his aircraft is clear of the area and ve toring from individual targets is being resumed.

f. When a civil flight, as specified in Paragraph 1.b is operating VFR in a terminal area, the terminal ai traffic control facility provides radar traffic informatio or, in lieu therof, visual surveillance and advise regar ing traffic to the maximum extent practicable consisten with workload, traffic conditions, weather, etc. Insofa as is possible, radar surveillance is maintained until visua surveillance is established.

JET ADVISORY SERVICE (Con't)

5. RADIO OR RADAR FAILURE PROCEDURES APPLICABLE TO FLIGHTS BEING PROVIDED RADAR JET ADVISORY SERVICE

a. In the event of a ground radar failure the pilot is expected to continue in accordance with his last received ATC clearance remaining on the radar facility's radio frequency until further advised. If the radar failure will be prolonged, the pilot may be advised to change to an appropriate ARTC Center frequency until radar service can be resumed.

b. In the event of loss of communication with the jet advisory controller on the last assigned control frequency, the pilot should attempt to re-establish communication with the controller as specified in "COMMUNICATIONS". If it has been determined that only the aircraft transmitting capabilities have failed, the pilot should be alert for advice on the last assigned control frequency of 121.5 mc to acknowledge instructions by actuating the radar beacon IDENT features or by executing specific code changes.

6. VFR FLIGHT REQUIREMENTS FOR NONRADAR JET ADVISORY AREAS

a. These areas consist of airspace prescribed from Flight Level 270 thru 310 inclusive, and from Flight Level 370 thru 410 inclusive, along segments of specified jet routes where radar traffic information cannot be provided due to lack of radar coverage. Their width is not more than 16 statute miles on either side of such jet routes as specified in Federal Aviation Regulations, Part 75.

b. Air Route Traffic Control Centers provide IFR separation between civil flights receiving this service and all other aircraft known to ATC operating within nonradar jet advisory areas, including VFR and IFR flights cleared to maintain VFR conditions-on-top or to climb or descend in VFR conditions, which are authorized to transit nonradar jet advisory areas. The following operational procedures apply to pilots of all aircraft operating VFR, as well as those cleared by ATC to climb or descend in VFR conditions or cleared to maintain VFR conditions-on-top which desire to fly across or within those areas designated as nonradar jet advisory areas.

(1) Specific authorization must be obtained from the appropriate ARTC Center prior to entering these designated areas. When an ATC clearance specifies climb or descent in VFR conditions or a cruising level of VFR conditions-on-top and does not include specific authorization to transit these areas, the pilot must obtain such authorization prior to entering a nonradar jet advisory area.

c. Request for specific authorization to proceed VFR or VFR conditions-on-top, across or within these areas must include a position report, type of aircraft and estimated time of entry and exit from these segments. Unrestricted authorization will be granted, except that when conflict with a civil flight receiving this service is indicated, aircraft operating VFR or IFR maintaining VFR conditions-on-top will be advised of the civil flight and said approval will restrict operation to specific flight level(s), time or locality, as appropriate, to preclude conflict with the civil flight.

d. No ATC separation is provided between VFR traffic or between VFR and IFR traffic other than civil flights receiving this service; however, traffic information is issued as appropriate.

7. The above procedures are applicable to those areas designated in Part 75 of Federal Aviation Regulations.

HOLDING

1. When holding at a VOR station pilots should begin the turn to the outbound leg at the time of the first complete reversal of the "to-from" indicator.

2. The direction to hold with relation to the holding fix will be specified as one of eight general points of the compass; i.e., North, Northeast, East, etc.

3. Pilots are always expected to hold in a standard right turn pattern unless specifically advised otherwise by ATC. When it is necessary that a non-standard pattern be flown, the ATC clearance will specify "left turns."

4. ATC clearance requiring that an aircraft be held at a holding point will include the following information:

a. To hold in a Standard or Nonstandard Pattern.

(1) The direction to hold from holding point;

(2) Holding fix;

(3) On (specified) radial, course, magnetic bearing, airway number or jet route;

(4) Outbound leg length in nautical miles if DME is to be used;

(5) Left turns, if nonstandard pattern is to be used;

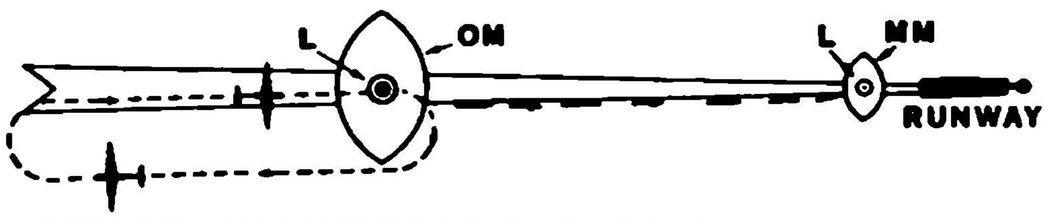
(6) Time to expect further clearance, or time to expect approach clearance.

b. Detailed holding instructions: Same as **a** (1), (2), and (3) above with following additions to (4) and (5):

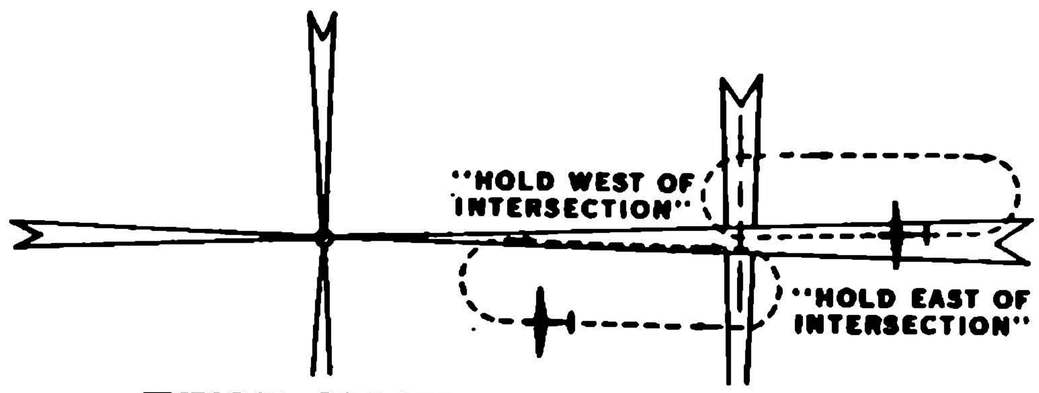
(4), or minute/s if DME is not to be used.

(5), or right turns if standard pattern is to be used.

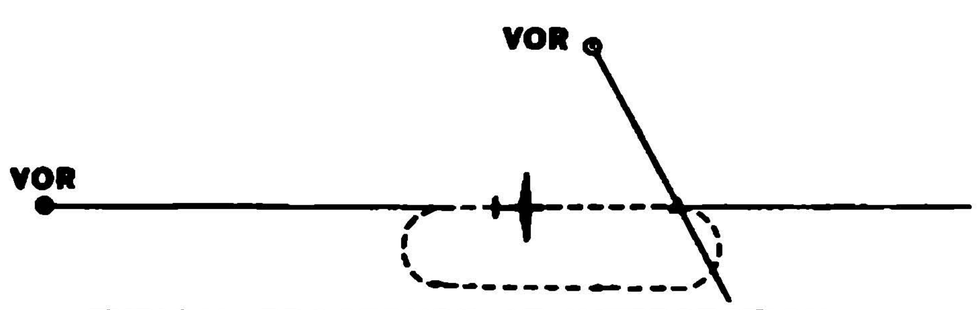
EXAMPLES OF HOLDING



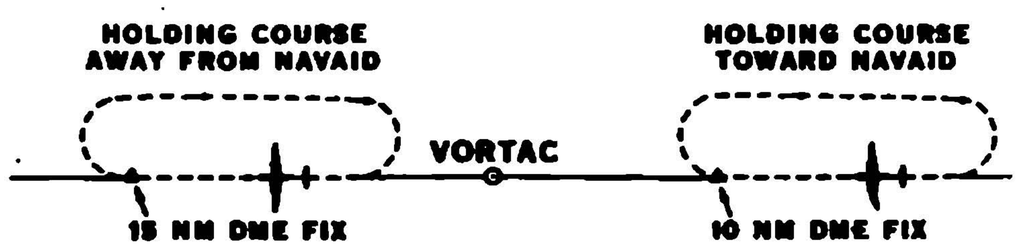
TYPICAL PROCEDURE ON AN ILS OUTER MARKER



TYPICAL PROCEDURE AT INTERSECTION OF RADIO RANGE COURSES



TYPICAL PROCEDURE AT INTERSECTION OF VOR RADIALS



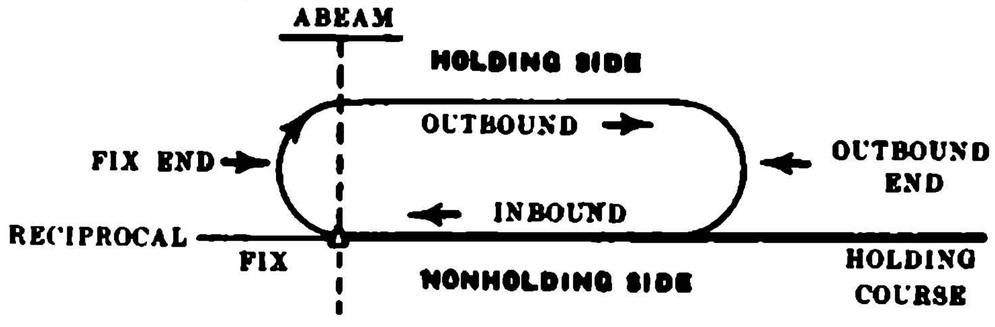
TYPICAL PROCEDURE AT DME FIX

HOLDING (Con't)

5. Holding pattern airspace protection is based on the following procedures. They are the only procedures for entry and holding recommended by FAA.

a. Entry Procedures

(1) Descriptive Terms



Standard Pattern : Right turns (illustrated)
Nonstandard Pattern: Left turns

(2) Airspeeds (maximum)

(a) Propeller-driven ..... 175K IAS

(b) Civil turbojet

1. MHA through 6,000 feet ..... 200K IAS
2. Above 6,000 feet through 14,000 feet ..... 210K IAS

Above 14,000 feet ..... 230K IAS

(c) Military turbojet

1. All-except aircraft listed below in (2) and (3) ..... 230 IAS
2. F-84F, F-100[1], F-102, F-104, F-106, T-38, F-4, F-8, F-11, A-5 ..... 265K IAS
3. F-100[1], F/RF-101, F-105, B-58 .. 310K IAS

[1] F-100 holding speed depends upon weight and drag configuration.

(d) Turboprop aircraft may operate at normal climb IAS while climbing in a holding pattern and turbojet aircraft may operate at 310K IAS or less while climbing in a holding pattern.

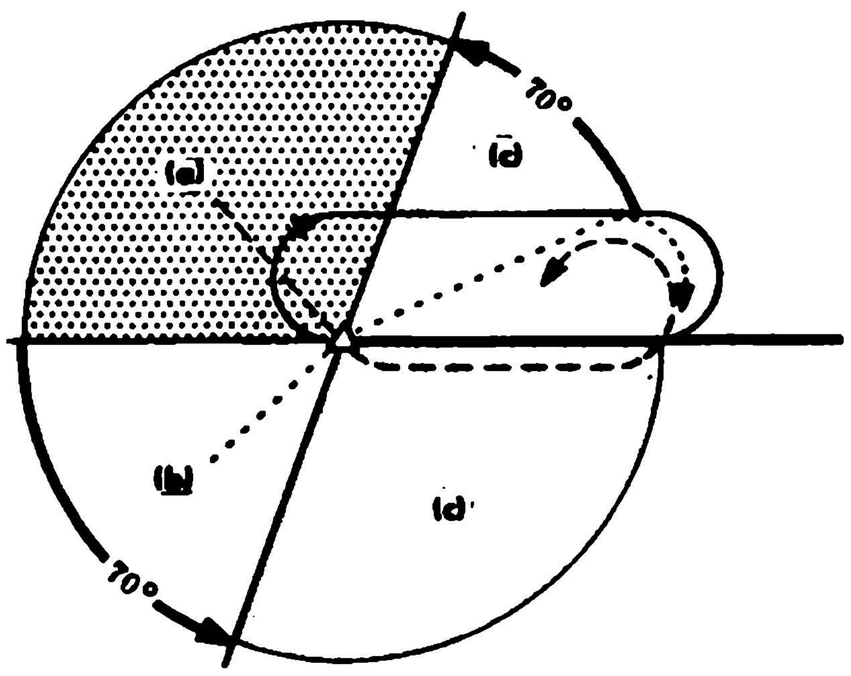
(3) Entry

(a) Parallel Procedure—Parallel holding course, turn left, and return to holding fix or intercept holding course.

(b) Teardrop Procedure—Proceed on southbound track of 30° (or less) to holding course, turn right to intercept holding course.

(c) Direct Entry Procedure—Turn right and fly the pattern.

STANDARD PATTERN



(4) Timing

(a)	At or below 14,000 ft. MSL	Above 14,000 ft. MSL
INBOUND leg*	1 min.	1½ min.

*NOTE.—The *initial* outbound leg should be flown for min. or 1½ min. (appropriate to altitude). Timing subsequent outbound legs should be adjusted as necessa to achieve proper inbound leg time.

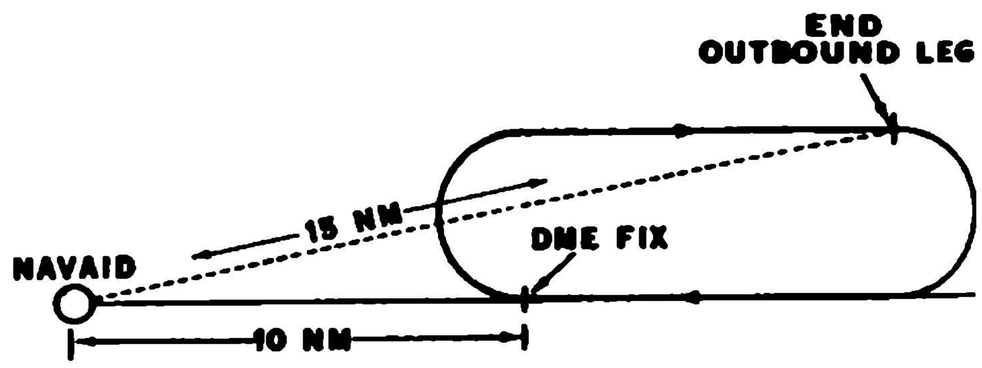
(b) Outbound timing begins *over* or *abeam* t fix, whichever occurs later. If the *abeam* position ca not be determined, start timing when turn to outbou is completed.

(5) Distance Measuring Equipment (DME)

(a) DME holding is subject to the same entry a holding proceduresc except that distances (nautical mile are used in lieu of time values. The *outbound course* a DME holding pattern is called the outbound leg of t pattern. The length of the outbound leg will be specifi by the controller. The end of the outbound leg is det mined by the odometer reading.

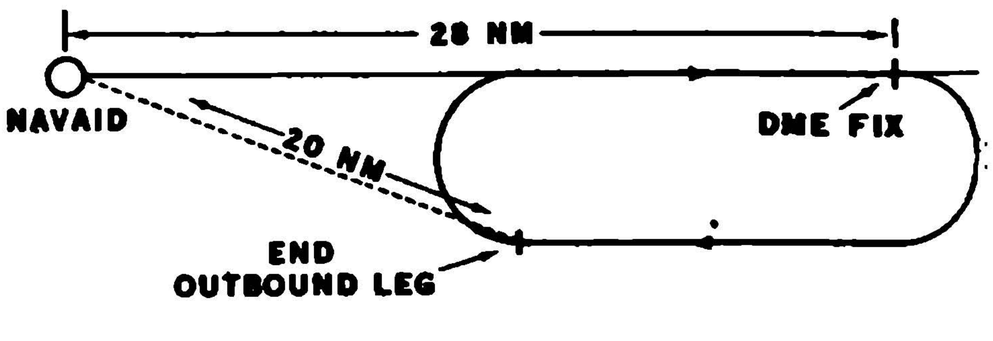
Example:

When the inbound course is *toward* the navaid a the fix distance is 10 NM, and the leg length is 5N then the end of the outbound leg will be reached wh the odometer reads 15 NM.



Example:

When the inbound course is *away* from the nava and the fix distance is 28 NM and the leg length 8 NM, then the end of the outbound leg will be reach when the odometer reads 20 NM.



(6) Pilot Action

(a) Cross holding fix initially at or below ma mum holding airspeed. Effect speed reduction within minutes prior to estimated initial time over the holdi fix.

(b) Make all turns during entry and while hol ing at: (1) 3° per second, or (2) 30° bank angle, or (25° bank angle provided a flight director system is use whichever requires the least bank angle.

(c) Compensate for known effect of wind, exce when turning.

(d) Determine entry turn from aircraft headi upon arrival at the holding fix. Plus or minus 5° heading is considered to be within allowable good ope ating limits for determining entry.

HOLDING (Con't)

(e) Advise ATC immediately if any increased airspeed is necessary due to turbulence or if unable to accomplish any part of the holding procedures.

(7) **Nonstandard Holding Pattern**—Fix end and outbound end turns are made to the left. Entry procedures for a nonstandard pattern are oriented in relation to the 070° line on the holding side just as in the standard pattern.

b. When holding at a fix and instructions are received specifying the time of departure from the fix, the pilot should adjust his flight path within the limits of the established holding pattern in order to leave the fix at the exact time specified. After departing the holding fix, normal speed is to be resumed with respect to other governing speed requirements such as terminal area speed limits, specific ATC requests, etc. Where the fix is associated with an instrument approach, and timed approaches are in effect, a procedure turn shall not be executed unless the pilot advises ATC, since aircraft holding are expected to proceed inbound on final approach directly from the holding pattern when approach clearance is received.

7. RADAR SURVEILLANCE OF OUTER FIX HOLDING PATTERN AIRSPACE AREAS.

a. Whenever aircraft are holding at an outer fix, ATC will usually provide radar surveillance of the outer fix holding pattern airspace area, or any portion of it, if it is shown on the controller's radar scope.

b. The controller will attempt to detect any holding aircraft that stray outside the holding pattern airspace area and will assist any detected aircraft to return to the assigned airspace area.

c. Many factors could prevent ATC from providing this additional service, such as workload, number of targets, precipitation, ground clutter, and radar system capability. These circumstances may make it unfeasible to maintain radar identification of aircraft or to detect aircraft straying from the holding pattern. The provision of this service depends entirely upon whether the controller believes he is in a position to provide it and does not relieve a pilot of his responsibility to adhere to an accepted ATC clearance.

AIR TRAFFIC CONTROL RADAR BEACON SYSTEM (ATCRBS)

1. GENERAL

a. Air Traffic Control Radar Beacon System (ATCRBS) is similar to and compatible with military coded radar beacon equipment (Mark X (SIF)). Civil Mode A is identical to military Mode 3.

b. Civil and military transponders except Basic Mark X, should be adjusted to the "on" or normal operating position as late as practicable prior to takeoff and to "off" or "standby" as soon as practicable after completing landing roll unless the change to "standby" has been accomplished previously at the request of ATC.

c. Basic Mark X (IFF) equipment should not be operated except in emergency or at ATC request. ATC will not normally request Basic Mark X (IFF) transponder operation.

d. When filing a domestic IFR flight plan for flight in an aircraft equipped with a radar beacon transponder, DME equipment, or a combination of both, the pilot shall identify equipment capability by adding a suffix to the identification, preceded by a slant, i.e.:

A12346/X	(Transponder, no code)
V23457/T	(Transponder, with code)
N1256/D	(DME)
R39851/L	(DME and transponder, no code)
AA409/B	(DME and transponder, with code)

NOTE.—The suffix is not to be transmitted by radio as part of the aircraft identification.

e. If entering a U.S. domestic control area from outside the U.S., the pilot should advise on first radio contact with a U.S. air traffic control center that such equipment is available by adding "transponder" or "no code transponder" as appropriate, to the aircraft identification.

f. The pilot of a military flight operating on a Mode other than Mode A/3 should adjust his transponder to reply simultaneously on the appropriate Mode A/3 code as set forth herein.

g. Under no circumstances should be pilot of a civil aircraft operate his transponder on Code 00.

2. INSTRUMENT FLIGHT RULES (IFR) FLIGHT PLAN

a. Adjust transponder to reply on the Mode A/3 code specified by ATC. The transponder shall be operated only as specifically directed by ATC. Except as may be required in an emergency, (see para. 5) when a flight has been assigned a code, it should remain on that code until further advised by ATC or until landing roll is completed at destination, at which time the transponder should be placed in "standby" position.

b. If the pilot cancels his IFR flight plan prior to reaching the terminal area of his destination, he should adjust his transponder to Code 06 or 07 according to the instructions below for VFR flight.

3. VISUAL FLIGHT RULES (VFR)

a. Adjust transponder to reply on the approriate Mode A/3 code as indicated below, unless otherwise advised by ATC.

(1) Code 06—for operation below Flight Level 240.

(2) Code 07—for operation at or above Flight Level 240.

NOTE.—Code 06 should be used when climbing to Flight Level 240 or above until leaving 23,000 feet MSL. Code 07 should then be dialed in. When descending from Flight Level 240 or above, Code 06 should again be used when leaving Flight Level 240.

4. SPECIAL MILITARY OPERATIONS

a. Pilots of NORAD interceptor aircraft on air defense missions not under ATC jurisdiction will adjust their transponders to reply on MODE A/3 Code 00.

●b. When prior coordination has been effected with each facility concerned, or when specified in an ALTRV, air defense exercise target aircraft use codes 50 and 64 from the point where the strike phase of the mission begins to the target location. When an authorization to deviate from FAR 91.97 has been executed, these aircraft use the "Standby" position of the transponder or one of the other codes allocated to NORAD (up to 14 codes as specified in the authorization in addition to codes 50 and 64), between points specified in the route. ATC retains the prerogative to instruct aircraft operating under such an authorization to reply on the appropriate ATC mode and code whenever safety dictates. ATC will be informed when any unscheduled change to the transponder operation is effected.

ATC RADAR BEACON SYSTEM (ATCRBS) (Con't)

5. EMERGENCY OPERATION

a. When an emergency occurs, the pilot of an aircraf equipped with a coded radar beacon transponder, who desires to alert a ground radar facility to his emergency condition and who cannot establish communications without delay with an air traffic control facility may adjust his transponder to reply on Mode A/ 3, Code 77.

b. The pilot should understand that he may not be within a radar coverage area and that, even if he is, certain radar facilities are not yet equipped to automatically recognize Code 77 as an emergency signal. Therefore, he should establish radio communications with an air traffic control facility as soon as possible.

6. RADAR BEACON PHRASEOLOGY

Air traffic controllers, both civil and military, will use the following phraseology when referring to operation of the Air Traffic Control Radar Beacon System (ATCRBS) Mark X IFF (SIF):

SQUAWK ALPHA/THREE CODE (number)—Operate radar beacon transponder on designated mode and code. (Transponder has not been operating on Mode A/3.)

SQUAWK CODE (number)—Operate transponder on a different code. (Transponder is already operating on a previously specified mode and code.)

SQUAWK IDENT—Engage the "IDENT" feature (military I/P) of the transponder.

SQUAWK ALPHA/THREE CODE (number) AND IDENT—Operate transponder on specified mode and code and engage the "IDENT" feature. (Transponder has not been operating on Code A/3.)

SQUAWK CODE (number) and IDENT—Operate transponder on a different code and "IDENT." (Transponder is already operating on a previously specified mode and code.)

SQUAWK STANDBY—Switch transponder to standby position.

SQUAWK LOW/NORMAL—Operate transponder on low or normal sensitivity as specified. Transponder is operated in "NORMAL" position unless ATC specified "LOW" ("ON" is used instead of "NORMAL" as a master control label on some types of transponders.)

STOP SQUAWK (mode in use)—Switch off specified mode (used only when more than one mode may be in operation).

STOP SQUAWK—Switch off transponder.

SQUAWK MAYDAY—Operate transponder in the emergency position. (Mode A Code 77 for civil transponder. Mode 3 Code 77 and/or emergency feature for military transponder.

CHANGEOVER POINTS

1. These points are established on VOR airways in order that pilots will not continue to use the radio guidance display from one facility in the same airspace that other aircraft are using radial guidance from a different facility. These points are based on signal coverage provided by each respective VOR along direct airway segments. The changeover point symbol, as depicted on the En Route Charts, indicates the location in nautical miles between two VOR's along a direct Victor airway at which the aircraft receiver should be tuned to the station ahead.

2. Pilots operating via the Low Altitude Victor Airways System will obtain track guidance by reference to the closest VHF aid forming the airway route segment, except when reference to a specific aid is indicated by a radio changeover point on En Route Charts.

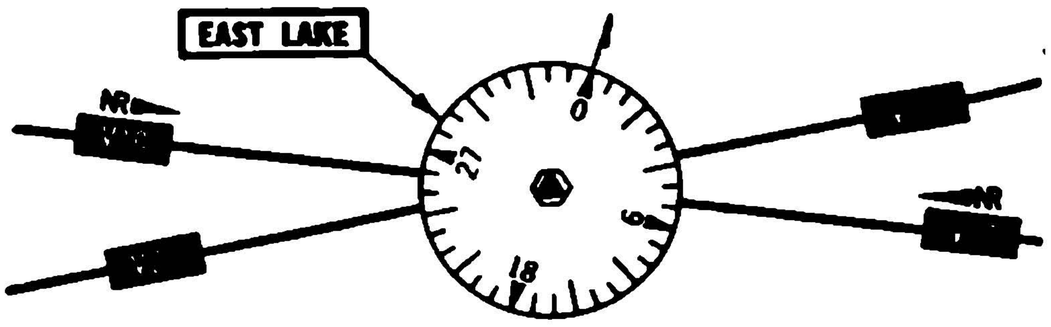
DIRECTIONAL REPORTING

1. Some compulsory reporting points have been desi nated as applicable only to specific airways and/or dire tions of flight. These reporting points will be consider as noncompulsory for the other airways and/or directio of flight. As such ,there will be times when a controll will, of necessity, request a position report on the nc compulsory portion. However, this will relieve the und burden on both the pilot and controller as position r ports will be required only as necessary for control pu poses. The fact that a reporting point is designated "directional" does not relieve the pilot of reporting i time and altitude/flight level upon reaching it when it. used as a clearance limit or holding fix.

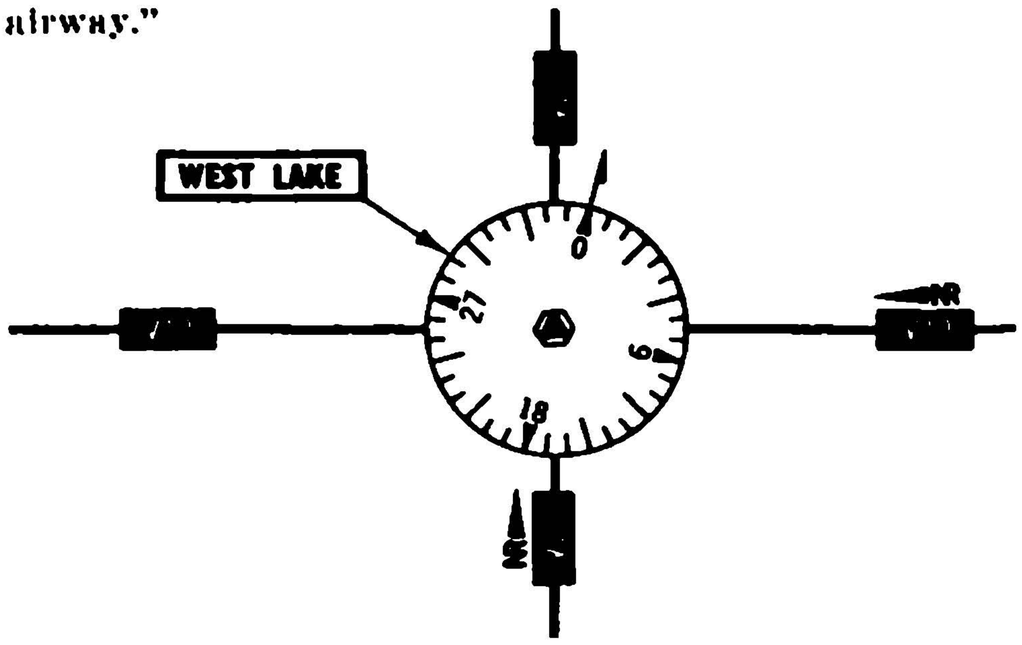
2. The symbol ▬▬ will be used on Coast and Ge detic Survey and other government aeronautical cha to indicate reporting "Not Required" at the next repo ing point unless at that reporting point a transition made to a "reporting airway." Upon crossing a dir tional reporting point, a pilot shall report his position his clearance contains a transition from a non-reporti to a reporting airway at that reporting point. The are instances where two or more airways utilize t same VOR radial and a position report is not requir from aircraft on one or more of these airways but required from aircraft cleared via the other airway/ therefore, the symbol is shown in conjunction with t specific airways designator/s to which it applies.

3. The directional requirement applies only to aircra en route via airways at the reporting point. Aircra crossing the reporting point, on a direct flight not v airways, shall report the fix. In addition, an aircra entering or leaving an airway on a direct flight at th reporting point shall report the fix.

Examples:

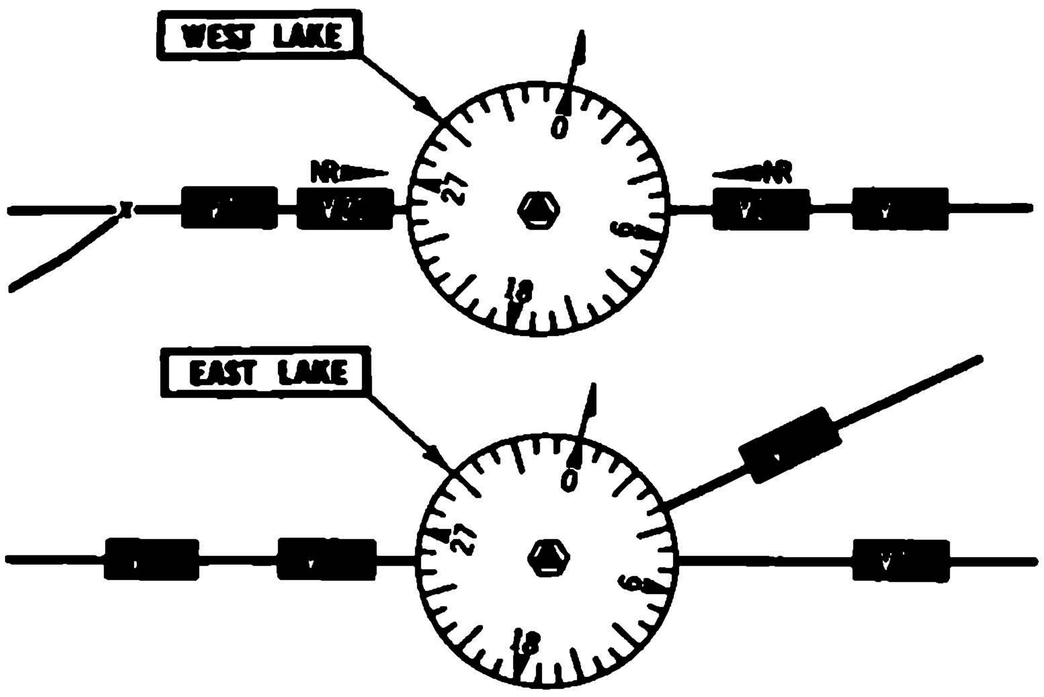


Aircraft proceeding Victor 10 do not report East La as the reporting symbol indicates it's not a "reporti airway." The absence of a reporting symbol for Vict 20 denotes it as a "reportin gairway" which indicat that aircraft proceeding Victor 20 must report East Lak Aircraft proceeding Victor 10, East Lake, Victor 20 Victor 20 East Lake, Victor 10 shall report as the clearance contains a transition to or from a "reporti airway."

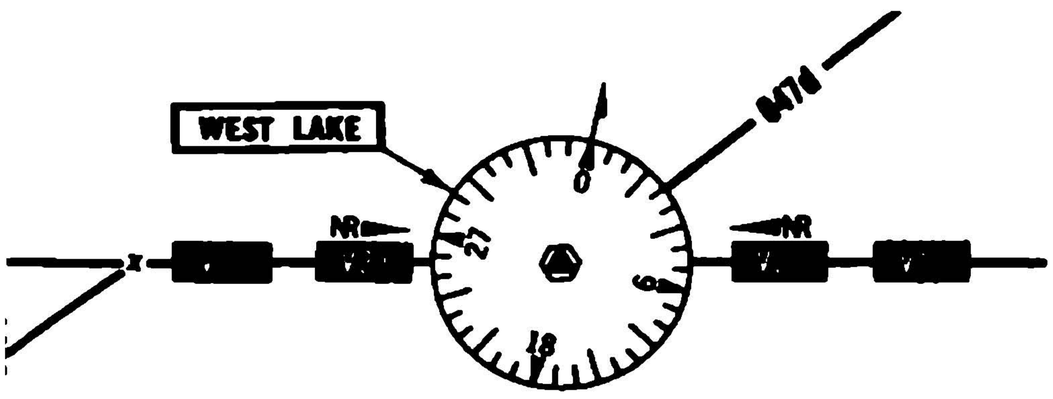


DIRECTIONAL REPORTING (Con't)

Eastbound aircraft on Victor 10 report as the "Not Required" in this instance is for westbound aircraft only. The same principle applies to southbound and northbound aircraft on Victor 20. However, an aircraft proceeding northbound on Victor 20 thence eastbound on Victor 10 would report as a transition is being made to a "reporting airway"; aircraft proceeding westbound on Victor 10 thence northbound Victor 20 would not report as the transition is being made from a "non-reporting airway" to another "non-reporting airway."



This is an example of differing requirements for two airways utilizing the same VOR radial. Aircraft cleared via Victor 10 report West Lake but aircraft cleared via Victor 20 would not. All aircraft report East Lake.



The aircraft on course 047d is a direct off-airways flight and would report West Lake. An aircraft proceeding eastbound or westbound to West Lake thence via the 047d radial shall report West Lake as a transition is being made to a direct course, a situation identical to a "reporting airway."

AIRCRAFT CLIMBING/DESCENDING

1. During any phase of flight, pilots are requested to adhere to the following procedures whenever cleared by ATC to descend or climb to an altitude or flight level.

a. Unless the ATC clearance requires otherwise, begin descent or climb promptly on acknowledgement of the clearance; and

b. If an altitude change of 1,000 feet or less is required, descend or climb at a rate of not more than 500 feet per minute; or

c. If an altitude change of more than 1,000 feet is required, descend or climb as rapidly as practicable to 1,000 feet above or below the assigned altitude and then at a rate of not more than 500 feet per minute until the assigned altitude is reached.

●d. If it is necessary during a climb or descent to level off at an intermediary altitude, advise ATC.

NOTE.—Pilots of military aircraft should use as a minimum the recommended climb and descent rates contained in the aircraft operating handbook.

2. Information is issued to pilots of IFR aircraft whenever less than the applicable minimum time separation between such aircraft will exist, and one aircraft is cleared to climb/descend in accordance with VFR through the altitude of the other. Traffic information is also issued at other times when deemed necessary by the controller or requested by the pilot.

RESTRICTED AIRSPACE

1. ATC facilities apply the following procedures when aircraft are operating on an IFR clearance (including those cleared by ATC to maintain VFR conditions on top) via a route which lies within joint-use or military climb corridor restricted airspace.

a. The ATC facility controlling an aircraft immediately before it would enter the restricted airspace will coordinate as necessary with the ATC facility designated as the controlling facility or with the using agency to obtain permission for the aircraft to operate in the restricted airspace.

b. If permission is obtained, the ATC facility will allow the aircraft to operate in the restricted airspace without issuing specific clearance for it to do so.

c. If permission cannot be obtained, the ATC facility will issue an amended clearance so the aircraft will avoid the restricted airspace.

2. Note that a, b, c above apply only to joint-use and military climb corridor restricted airspace and not to prohibited and nonjoint-use airspace. For the latter categories, the ATC facility will issue a clearance so the aircraft will avoid the restricted airspace unless it is on an approved altitude reservation mission or has obtained its own permission to operate in the airspace and so informs the controlling facility.

3. Restricted airspace is depicted on the Flight Information Publication, En Route Chart appropriate for use at the altitude or flight level being flown. For joint-use and military climb corridor restricted airspace, these charts show the name of the ATC facility designated as the controlling facility or the name of the using agency. For prohibited and nonjoint-use restricted airspace, the phrase "NO A/G" is shown.

RADAR ASSISTANCE TO VFR AIRCRAFT

1. Radar equipped FAA Air Traffic Control facilities provide assistance and navigation service to VFR aircraft, provided such aircraft can communicate with the facility, are within radar coverage, and can be radar identified. Radar navigation assistance (vectors) may be provided VFR pilots when:

a. The pilot requests;

b. The controller suggests and the pilot agrees;

c. Special programs have been established which specify locations and special VFR service is advertised; or,

d. When air safety requires in the judgement of the controller.

RADAR ASSISTANCE TO VFR AIRCRAFT (Con'd)

2. Pilots operating in accordance with Visual Flight Rules and not equipped or trained for IFR flight should use caution in requesting radar assitance as such assistance may result in flight in IFR weather conditions, either intentionally or by accident. In many cases, the radar controller will be unable to determine if flight into instrument conditions will result from his instructions. Furthermore, although the radar controller may be able to provide separation from other traffic and navigational guidance to an airport or other suitable location, the *job of flying the aircraft safely remains with the pilot.* Experience has shown that many pilots cannot maintain control of their aircraft when clouds or other reduced visibility conditions are encountered.

3. To avoid hazards arising from VFR flights being radar vectored into IFR weather conditions, pilots in difficulty should observe the following:

a. If an alternate course of action is available which will permit flight in VFR weather conditions, pilots not instrument rated or operating aircraft not equipped for IFR flight should choose the alternative rather than request radar approach or letdown in IFR weather conditions; or

b. If the pilot is not instrument rated and no alternate course of action is available he should so advise the radar facility and "declare an emergency". The pilot must keep the controller advised of the weather conditions in which the aircraft is operating and along its course ahead. Assistance will be provided on the basis that the navigational guidance information issued is advisory in nature.

c. If the pilot is instrument rated and the aircraft is instrument equipped, the pilot should so indicate by filing an instrument flight plan. Assistance will be provided on the basis that the flight can operate safely in IFR weather conditions.

4. Pilots should clearly understand that authorization to proceed in accordance with such radar navigational assistance does not constitute authorization for the pilot to violate the Federal Aviation Regulations.

LAKE, ISLAND, AND MOUNTAIN REPORTING SERVICE

1. Selected Flight Service Stations provide flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.

2. Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface," "Overlake," etc., are indicated on charts published in Section III. To obtain this service, contact the FSS by telephone or radio giving present position, type of aircraft altitude, indicated airspeed, proposed route of flight, and mainland estimate.

3. After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.

COMMUNICATIONS

1. POSITION REPORTING

a. The safety and effectiveness of traffic control d pends to a large extent on accurate position reporti In order to provide the proper separation and exped aircraft movements, Air Traffic Control must be able make accurate estimates of the progress of every aircr operating on an IFR flight plan.

b. When a position report is to be made over a V(radio facility, the time reported should be the time which the first complete reversal of the "to-from" in cator is accomplished.

c. When a position report is made over a facility means of an airborne ADF, the time reported should the time at which the indicator makes a complete versal.

d. When an aural or light-panel indication is used determine the time of passing a reporting point, such a fan marker, "Z" marker, cone of silence or intersecti of range courses, the time should be noted when the sig is first received and again when it ceases. The mean the two times should then be taken as the actual ti over the fix. If position is given with respect to distar and direction from a reporting point, the distance a direction should be computed as accurately as possit

e. Pilots are required to maintain a continuous liste ing watch on the appropriate frequency and furni position reports as indicated by symbol on En Rou Charts.

f. The compulsory reporting point symbol is the so triangle (▲); the "on request" reporting point bei an open triangle (△). Reports over an "on reque reporting point are only necessary when requested ATC.

(1) **Flights along airways/routes**—A position report required by all flights regardless of altitude over ea compulsory reporting point along the route being flow except where otherwise indicated by a "Not Require symbol. This includes flights operating in a cordance with an ATC clearance specifying "VFR con tions on top."

NOTE.—In Alaska some position reports are required o when operating below 15,200′ MSL. These locations shown on the en route charts by a circled letter " leadered to the reporting point: . This procedure d not apply to flights operating on an altitude assignm of "VFR-on-top."

(2) **Flights Along a Direct Route**—Regardless of the al tude being flown, including flights operating in accor ance with an ATC clearance specifying "VFR conditio on-top," pilots shall report over each reporting poi used on the flight plan to define the route of flight.

g. Position reports should include the following item (1) Identification, (2) Position, (3) Time, (4) Altitu (5) Type of flight plan (not required in IFR positi reports made direct to ARTC Centers or approach c trol), (6) ETA over next reporting point, (7) *The na only of the next succeeding reporting point along t route of flight*, and (8) pertinent remarks.

Example:

An aircraft operating along Victor Airway 30 b tween Pittsburgh and Minneapolis would make t following report when over Litchfield, Mich.: N VEMBER NINER TWO ONE XRAY OVER LITC FIELD FIVE SIX AT EIGHT THOUSAND I

COMMUNICATIONS (Con't)

STRUMENT FLIGHT PLAN ESTIMATING PULLMAN ONE FOUR ONE EIGHT *MILWAUKEE*. A corrected estimate should be forwarded to Air Traffic Control any time it becomes apparent that an estimate as previously submitted, is in error in excess of *three* minutes.

●NOTE—Pilots in Alaska, Hawaii, U.S. Territories and possessions, operating at or above flight level 240 and who have requested and received a clearance specifying "VFR Conditions On Top" are requested to report their "actual" altitude as part of their IFR position reporting procedure and advise ATC prior to making an altitude change.

h. The following reports should be made to ATC or FSS facilities without request:

(1) The time and altitude/flight level reaching a holding fix or point to which cleared.

(2) When vacating any previously assigned altitude/flight level for a newly assigned altitude/flight level.

(3) When leaving any assigned holding fix or point.

(4) When leaving final approach fix inbound on final approach.

(5) When an approach has been missed. (Request clearance for specific action, i.e., to alternate airport, another approach, etc.)

i. Navigation or position reports will not normally be required by ATC with reference to aids not established for use in the structure in which operation is conducted, except as may be essential for terminal area transition purposes.

j. Pilots encountering weather conditions which have not been forecast, or hazardous conditions which have been forecast, shall forward a report of such weather to Air Traffic Control. The reporting of unanticipated weather or hazardous conditions may be of importance to the safety of other aircraft proposing flight within the area.

k. Position reporting in a radar environment:

(1) Pilots of radar identified aircraft which will remain under radar surveillance may be authorized to discontinue position reports over fixes designated as compulsory reporting points. The controller will grant this authorization using the phraseology "OMIT POSITION REPORTS."

(2) When authorized to omit position reports, the controller, at the time radar service is terminated or at his discretion will issue instructions to resume normal position reporting using the phraseology "RESUME NORMAL POSITION REPORTING."

(3) Monitor normal air traffic control communications frequencies. On initial contact when changing frequencies, pilots should comply with standard contact procedures described in Transfer of Control under 2. DIRECT COMMUNICATIONS — CONTROLLERS/PILOTS.

(4) Pilots of aircraft operating below Flight Level 240, who have been advised to omit position reports, will be furnished the appropriate altimeter setting when passing compulsory reporting points as observed by radar.

2. DIRECT COMMUNICATIONS—CONTROLLERS/PILOTS

a. Air Traffic Control facilities are equipped with radio transmitters and receivers for direct communications with IFR air traffic on certain VHF, UHF and L/MF frequencies. The frequencies normally used are published on appropriate en route charts. IFR operations are expedited through the use of direct communications; however, to reduce frequency congestion, pilots are requested to use these frequencies strictly for communications pertinent to the control of IFR aircraft. Flight plan filing, en route weather, forecasts and similar data should be requested through Flight Service Stations, company radio or appropriate military facilities capable of performing these services.

(1) Center Sector Discrete Frequency—an ARTCC is divided into sectors; each sector is handled by one Controller, or team of controllers, and has its own sector discrete frequency. As an IFR flight progresses from one sector to an other, the pilot is requested to change to the appropriate sector discrete frequency.

(2) Center Area Discrete Frequency—A frequency used as back-up for the center sector frequencies and is available to each non-radar sector in the ARTCC. It is always monitored by at least one controller who can quickly put an IFR flight in radio contact with the appropriate sector.

b. Transfer of Control

(1) Air traffic controllers may utilize direct or indirect communications media to require a pilot to contact an adjacent sector within a facility, or an adjacent facility, whenever necessary to effect transfer of control.

(2) The following phraseology will be used to effect transfer of control: "(aircraft identification) CONTACT (facility name) ON (frequency) (time or point), OVER."

Examples:

"BEECHCRAFT TWO ONE BRAVO, CONTACT INDIANAPOLIS CENTER ON ONE TWO FIVE POINT ONE OVER."

"AIR FORCE FIVE FOUR THREE TWO ONE CONTACT ATLANTA CENTER ON THREE ONE SEVEN POINT SIX OR ONE THREE FIVE POINT SIX AT ONE THREE FIVE ZERO, OVER."

"EASTERN FIVE ZERO TWO, CONTACT WASHINGTON CENTER ON ONE TWO THREE POINT SEVEN AT ROANOKE, OVER."

(3) The following phraseologies should be utilized by pilots for establishing contact with the designated facility:

(a) When contact is to be followed by a position report:

"(name) CENTER, (THIS IS) (aircraft identification), (position), OVER."

A typical example of the exchange of communications would be:

"WASHINGTON CENTER, (THIS IS) EASTERN FIVE ZERO TWO, ROANOKE, OVER."

"EASTERN FIVE ZERO TWO, (THIS IS) WASHINGTON CENTER, GO AHEAD."

"EASTERN FIVE ZERO TWO, (OVER) ROANOKE THREE SIX (AT) ONE NINER THOUSAND, (ESTIMATING) MONTEBELLO FIVE TWO, GORDONSVILLE, (OVER)."

"EASTERN FIVE ZERO TWO, ROGER."

(b) When contact is to be made at a specific time or point and no position report is required:

"(name) CENTER, (THIS IS) (aircraft identification), ESTIMATING (reporting point)

COMMUNICATIONS (Con't)

(time) AT (altitude/flight level), OVER."
"(name) CENTER, (THIS IS) (aircraft identification), ESTIMATING (reporting point) (time) AT (altitude/flight level) CLIMBING/DESCENDING TO (altitude/flight level) OVER."

A typical example of exchange of communications would be:
"CHICAGO CENTER, (THIS IS) BEECHCRAFT ONE TWO THREE FOUR, ESTIMATING CHICAGO HEIGHTS FOUR TWO, AT NINER THOUSAND, DESCENDING TO FIVE THOUSAND, OVER."
"BEECHCRAFT ONE TWO THREE FOUR (THIS IS) CHICAGO CENTER, ROGER."

c. It should be noted that whenever contact with ATC is to be followed immediately by a position report, the name of the reporting point should be included in the contact. This will alert the controller that such information is forthcoming. When a position report is not required, an estimate for the next reporting point, the actual altitude and, if appropriate, the altitude to which climb or descent is being made, should be included in the initial contact. The controller will simply acknowledge that contact has been established, or, when required, issue appropriate control instructions.

NOTE.—Federal Aviation Regulations require the pilot to maintain a continuous watch on the appropriate radio frequencies; therefore, a pilot receiving a clearance as indicated above, should remain on the frequency he is on *until* the time or point to change to the newly assigned frequency.

NOTE.—If two-way communications cannot be established as indicated in Paragraph b(1), a pilot should attempt to re-contact the transferring controller for the assignment of an alternate frequency or other instructions. If, however, communications are not re-established, the pilot should then contact the appropriate communications medium as indicated in the following Frequency Use Plan.

3. FREQUENCY USE PLAN

a. The following table provides a plan by which pilots may determine the frequency they will be expected to use, when the sector discrete frequency (Priority One) has been specified, in effecting transfer of control, and two-way communications cannot be established.

Priority	**First**
Civil/Military VHF	Sector Discrete Frequency as assigned.
Military UHF	Sector Discrete Frequency as assigned.
Priority	**Second**
Civil/Military VHF	Below FL 240–Center Area Discrete Frequency (if appropriate). FL 240 and above—FSS–126.7.
Military UHF	FSS–272.7 (at all altitudes).
Priority	**Third**
Civil/Military VHF	Air carrier-company radio, if unable, FSS–126.7 General Aviation and Military FSS–126.7, 122.1/122.2 or VOR
Military UHF	FSS–255.4

• SPECIAL USE AIRSPACE

1. It is mandatory that pilots avoid unauthorized eration in prohibited areas and restricted areas and tremely important that warning areas not be penetra unless prior approval has been obtained. The follow explanation is to impress on all concerned the purp of such areas and indicate that hazards are presented activities within restricted and warning areas. Caut and intensive student jet training areas contain activ of interest to the nonparticipating pilot. The ope tions conducted within these areas are not conside hazardous and consist primarily of high volume milit training. These five types of airspace are depicted aeronautical charts published by the Coast and G detic Survey.

a. Prohibted Area. Airspace identified by an area the surface of the earth within which the flight of craft is prohibited. Such areas are established security or other reasons associated with the natio welfare. These areas are published in the Fede Register.

b. Restricted Area. Airspace identified by an area the surface of the earth within which the flight of craft, while not wholly prohibited, is subject to rest tions. Activities within these areas must be confined cause of their nature or limitations imposed upon craft operations that are not a part of those activit or both. Restricted areas denote the existence of usual, often invisible, hazards to aircraft. Penetrat of restricted areas during periods of activity may extremely hazardous to the aircraft and its occupar Restricted areas are published in the Federal Regis and constitute Part 73 of the Federal Aviation Re lations.

c. Warning Area. Warning areas are established yond the three-mile limit. They are areas of defir dimensions established to contain both visible and visible hazards to nonparticipating aircraft. Thou the activities within the warning areas are as hazard as those contained within restricted areas, warning ar cannot be legally designated because they are over ternational waters. Penetration of warning areas d ing periods of activity may be hazardous to the aircr and its occupants. Official descriptions of warning ar may be obtained upon request to the FAA, Washingt D.C.

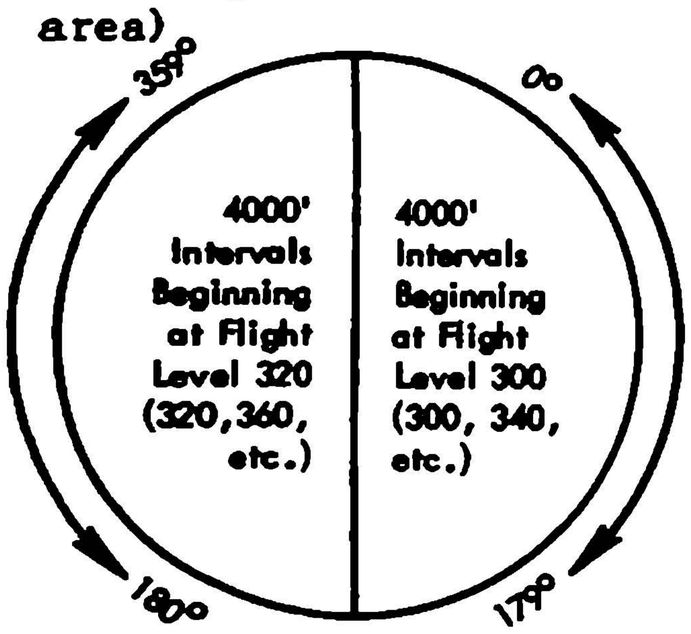
d. Caution Area. Areas of defined dimensions with which the military training activities conducted, thou not hazardous, are of interest to nonparticipating pilo There are no restrictions applicable to flight with these areas. Information concerning these areas m be obtained upon request to the FAA, Washington, D.

e. Intensive Student Jet Training Area (ISJTA). These are are depicted on aeronautical charts to identify traini of student jet pilots. There is no restriction to VF flight in these areas. Information on these traini areas may be obtained from any FSS within 100 mil of the area.

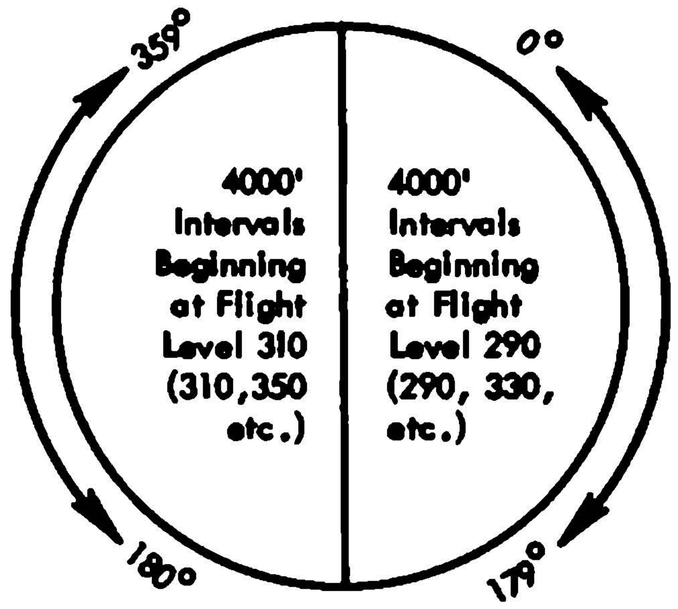
CRUISING ALTITUDES

FAR PARTS 91.109,91.121

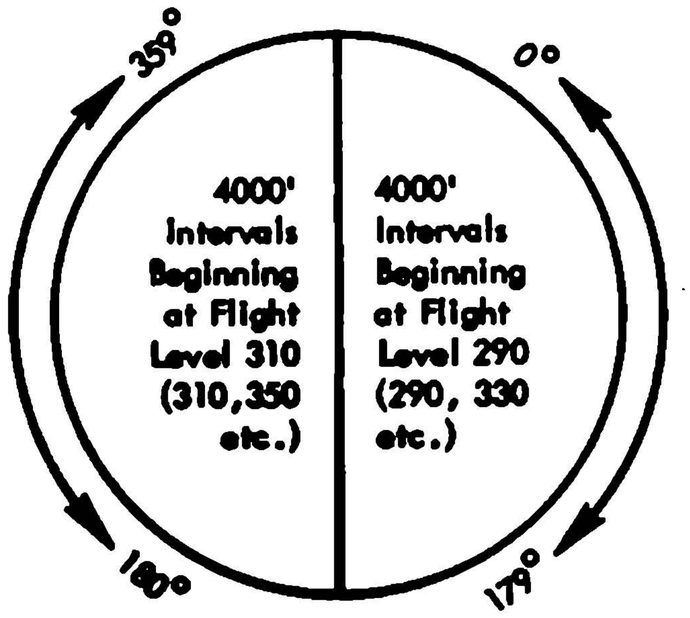
VFR AND "VFR CONDITIONS ON TOP"
(VFR cruising altitude rules are not applicable in positive control area)



IFR WITHIN CONTROLLED AIRSPACE AT ALTITUDES ASSIGNED BY ATC
(Altitudes shown below are for flight planning purposes only)



IFR OUTSIDE CONTROLLED AIRSPACE

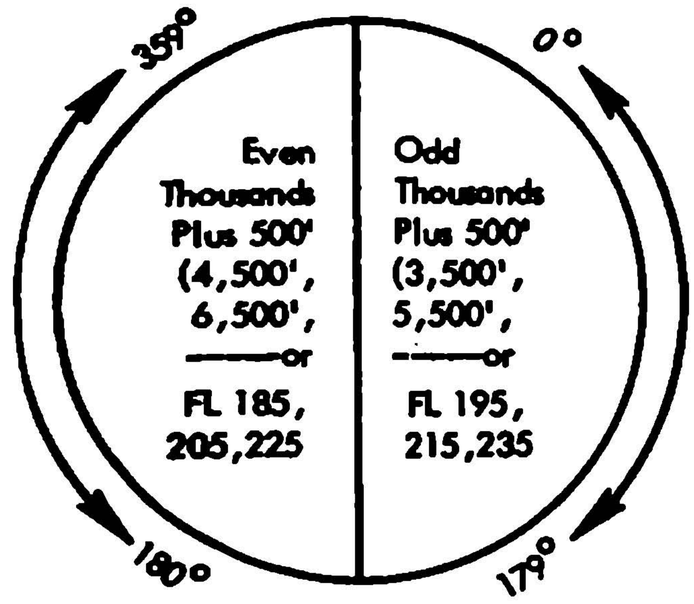


ALL COURSES ARE MAGNETIC

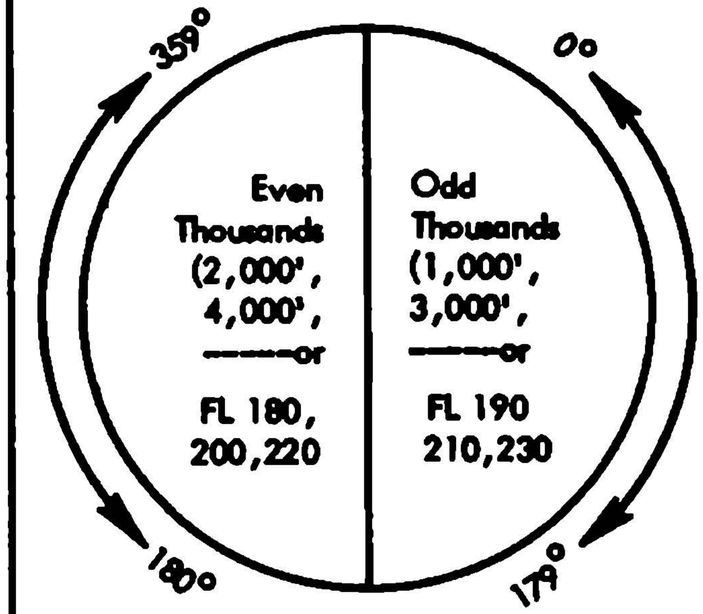
290

NOTE: FLIGHT LEVELS BEGIN AT 180

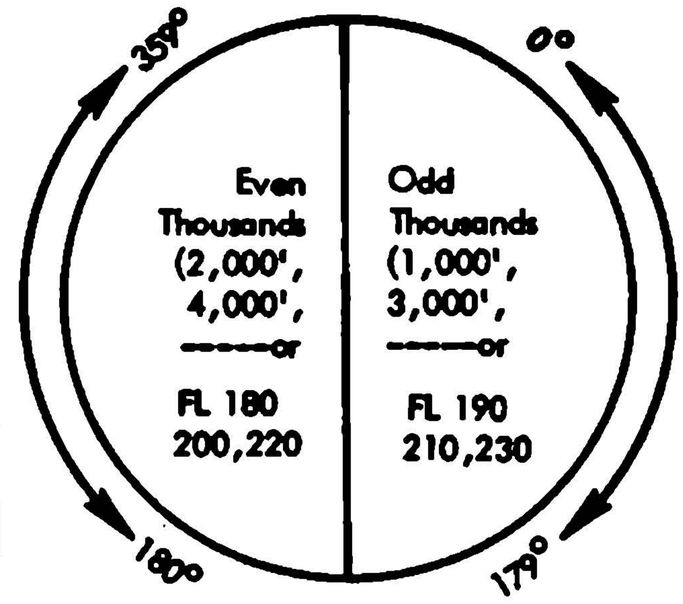
VFR AND "VFR CONDITIONS ON TOP"
(VFR cruising altitude rules are not applicable in positive control area)

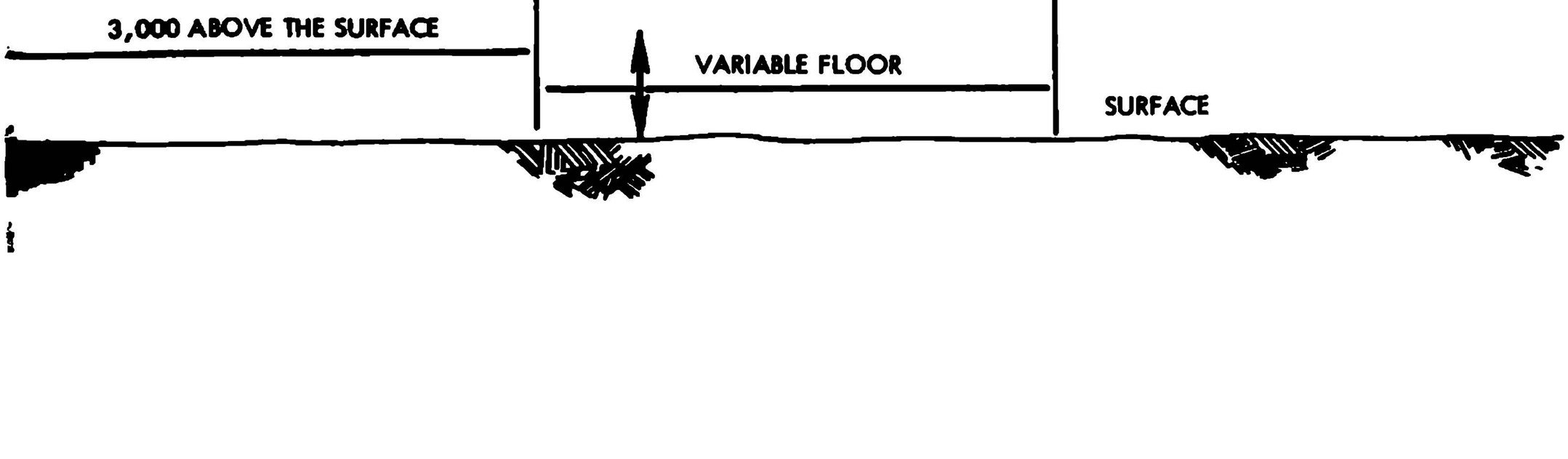


IFR WITHIN CONTROLLED AIRSPACE AT ALTITUDES ASSIGNED BY ATC
(Altitudes shown below are for flight planning purposes only)



IFR OUTSIDE CONTROLLED AIRSPACE





ARRIVAL

VFR ADVISORY INFORMATION

1. VFR advisory information is provided by numerous radar and nonradar *Approach Control* facilities to those pilots intending to land at an airport served by an approach control tower. This information includes: wind, runway, traffic and NOTAM information.

2. Such information will be furnished upon initial contact with concerned approach control facility. The pilot will be requested to change to the *tower* frequency at a predetermined time or point, to receive further landing information.

3. Where available, use of this procedure will not hinder the operation of VFR flights by requiring excessive spacing between aircraft or devious routing. Radio contact points will be based on time or distance rather than on landmarks.

4. Compliance with this procedure is not mandatory but pilot participation is encouraged.

AIRPORT ADVISORY SERVICE (NONRADAR)

1. Flight Service Stations (FSS) located at airports where there are no control towers in operation provide advisory information to arriving and departing aircraft. This service is offered for safety purposes; traffic control is not exercised.

2. Arriving and departing radio-equipped VFR aircraft are requiring to maintain radio contact with the FSS while operating within a 5 mile radius of those stations that are properly depicted on Sectional or World Aeronautical Charts in accordance with F.A.R. 91.89. Aircraft operating IFR will maintain radio contact with the facility specified by ATC. Receiver-only-equipped aircraft are required to maintain a listening watch on the airport advisory frequency—122.2 mc.

3. Airport advisories provide: wind direction and velocity, favored runway, altimeter setting, pertinent known traffic, Notices to Airmen, airport taxi routes, airport traffic patterns, and instrument approach procedures. These elements are varied so as to best serve the current traffic situation. Pilots using other than the favored runways should advise the FSS immediately.

4. Recommended phraseologies and communications procedures are as follows:

AIRCRAFT DEPARTING: When ready to taxi, the pilot should notify the station of his intentions. Except for scheduled air carriers or other frequent users of the airport, this information should include not only the aircraft identification, but also the aircraft type, location, type of flight planned (VFR or IFR), and destination.

Example:

Aircraft: GRAND FORKS RADIO, THIS IS COM: CHE SIX ONE THREE EIGHT, ON TERMIN BUILDING RAMP, READY TO TAXI, VFR DULUTH, OVER.

Station: COMANCHE SIX ONE THREE EIGI THIS IS GRAND FORKS RADIO, WIND THR TWO ZERO DEGREES AT TWO FIVE FAV(ING RUNWAY THREE ONE, ALTIMET THREE ZERO ZERO ONE, TIME ONE T\ TWO FIVE, CESSNA ONE-SEVENTY MAKI TOUCH AND GO LANDINGS ON RUNW. THREE ONE.

NOTE.—The take-off time should be reported to the F as soon as practicable. If the aircraft has limited eq ment and it is necessary to use the navigational feature the radio range immediately after take-off, advise the F of this before shifting frequency from 122.2 to the range. such cases, advisories will be transmitted over both 12 and the range frequency.

AIRCRAFT ARRIVING: When operating VFR, a pilot shou transmit position and altitude information to t FSS when 15 miles from the airport.

Example:

Aircraft: GRAND FORKS RADIO, THIS IS TI PACER ONE SIX EIGHT NINER, OVER KI WEST, TWO THOUSAND, LANDING GRA FORKS, OVER.

Station: TRI-PACER ONE SIX EIGHT NINE THIS IS GRAND FORKS RADIO, OVER KI WEST AT TWO THOUSAND, WIND ONE FI ZERO DEGREES AT ONE TWO, FAVORI RUNWAY ONE THREE, ALTIMETER TW NINER EIGHT NINER, DC-3 TAKING-OI RUNWAY ONE THREE, CESSNA ONE FOR ON DOWNWIND LEG RUNWAY ONE THRI MAKING TOUCH AND GO LANDINGS, C MANCHE DEPARTED RUNWAY ONE THRI AT ONE SIX PROCEEDING EASTBOUN OVER.

NOTE.—Pilots should guard 122.2 mcs. until clear of t runway after landing and report leaving the runway the FSS.

RADAR TRAFFIC INFORMATION SERVICE

1. A service provided by radar air traffic control faci ties. Pilots receiving this service are advised of ai aircraft observed on the radar scope which, in the jud ment of the controller, apears to constitute a potenti conflict to the operation of their aircraft.

a. **Purpose of the Service**—Radar Traffic Informatic Service is not intended to relieve the pilot of his respo sibility for continual vigilance to see and avoid oth aircraft. It is provided to aid him in his visual surve

ADAR TRAFFIC INFORMATION SERVICE (Con't)

ance by calling to his attention a specific direction in hich radar indicates possible conflicting traffic to exist. ilots are reminded that the surveillance radar utilized y the controller does not provide altitude information.

b. Provision of the Service—The provision of this service s not mandatory. Many factors, such as limitations of he radar, volume of traffic, controller workload and ommunications frequency congestion, could prevent the ontroller from providing this service. The controller ssesses complete discretion for determining whether e is able to provide or continue to provide this service n a specific case. His reason against providing or conuing to provide the service in a particular case is not bject to question nor need it be communicated to the ilot. In other words, the provision of this service is ntirely dependent upon whether the controller believes e is in a position to provide it, subject to the foregoing mitations:

(1) Traffic information is routinely provided to all ircraft operating on IFR flight plans except when the ilot advises he does not desire the service.

(2) Traffic information may be provided for flights ot operating on IFR flight plans when requested by ilots of such flights.

NOTE.—Participation by VFR pilots in formal programs implemented at certain terminal locations constitutes pilot request. This also applies to participating pilots at those locations where arriving VFR flights are encouraged to make their first contact with the tower on the approach control frequency.

c. Issuance of Traffic Information—Traffic information ill include the following concerning a target which ay constitute traffic for an aircraft that is:

(1) Radar identified:

(a) Azimuth from the aircraft in terms of the welve hour clock;

(b) Distance from the aircraft in nautical miles;

(c) Direction in which the target is proceeding; nd

(d) Type of aircraft and altitude or, if unnown, the relative speed of the observed traffic; i.e., ow or fast moving.

Example:

Traffic 10 o'clock, 3 miles, west-bound (type aircraft and altitude, if known or relative speed of the observed traffic). The pilot may, upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller.

(2) Not radar identified:

(a) Distance and direction with respect to a fix;

(b) Direction in which the target is proceeding; nd

(c) Type of aircraft and altitude or, if unnown, the relative speed of the observed traffic, i.e., ow or fast moving.

Example:

Traffic 8 miles out of the airport northeastbound, (type aircraft and altitude or relative speed of the observed traffic).

EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

1. This service has been implemented at certain terminal locations. Pilot participation is urged but is not mandatory.

2. The purpose of this service is to adjust the flow of arrival VFR and IFR aircraft into the traffic pattern in a safe and orderly manner. To participate, pilots of VFR aircraft should initiate radio contact with approach control when reaching the perimeter of the area in which the VFR services are provided. Approach control then provides the pilot with wind direction and velocity, runway in use, traffic information, routings, etc., as necessary, for proper sequencing with other traffic en route to the airport.

3. After radar contact is established, the pilot is directed to fly specific headings either to join an appropriate leg of the traffic pattern or to position the flight behind the preceding aircraft in the landing sequence. When a flight is positioned behind the preceding aircraft and the pilot reports having that aircraft in sight, he will be directed to follow it. Upon being told to contact the tower, radar service will end. A landing sequence number will thereafter be assigned by the tower.

4. Pilots of departing VFR aircraft desiring Traffic Information Service should request the service on initial contact with ground control and advise proposed direction of flight. Following take-off, the tower will advise when to contact departure control and the frequency to be used.

•TERMINAL RADAR SERVICE

(Provided in designated Terminal Radar Service Areas, TRSA).

1. This service has been implemented at certain terminal locations and is provided on a voluntary pilot participating basis.

2. The purpose of this service is to provide, to the extent possible separation between all participating VFR aircraft and all IFR aircraft operating within the airspace defined as the TRSA.

3. The TRSA is primarily a radar environment and control is predicated thereon, however, this does not preclude application of nonradar separation when required or deemed appropriate. During weather conditions equal to or better than basic VFR:

(a) 500 feet vertical separation may be used between VFR aircraft and/or between VFR and IFR aircraft.

(b) Visual separation may be used between VFR aircraft and/or between VFR and IFR aircraft when the pilot sees the other aircraft and reports he will maintain visual separation from it.

4. Within the TRSA traffic information on observed but unidentified targets will, to the extent possible, be provided all IFR and participating VFR aircraft and such aircraft, at the request of the pilot, will be vectored to provide standard radar separation from the observed traffic, insofar as possible.

AERONAUTICAL ADVISORY STATIONS (UNICOM)—122.8, 123.0 MC.

1. 122.8 mc is assigned to airports *not* served by a control tower. Its use is limited to the necessities of safe and expeditious operation of private aircraft pertaining to runway and wind conditions, types of fuel available, weather, and dispatching. Secondarily, communications may be transmitted concerning ground transportation, food and lodging during transit.

2. 123.0 mc is assigned to airports *served* by a control tower. Communications on this frequency are identical to those permitted on 122.8 mc, with the exception of information such as runway and wind conditions, weather, etc. which would be furnished by the tower. THIS SERVICE SHALL NOT BE USED FOR AIR TRAFFIC CONTROL PURPOSES.

AERONAUTICAL MULTICOM SERVICE 122.9 MC.

1. A mobile service used to provide communications essential to conduct of activities being performed by or directed from private aircraft.

Example:

Ground/air communications pertaining to agriculture, ranching, conservation activities, forest fire fighting, aerial advertising and parachute jumping. THIS SERVICE SHALL NOT BE USED FOR AIR TRAFFIC CONTROL PURPOSES.

APPROACH CONTROL

1. Approach control is responsible for controlling all instrument flight terminating within its area of responsibility. Approach control may serve one or more airfields, and control is exercised primarily by direct pilot/controller communications. Prior to arriving at the destination radio facility, instructions will be received from ARTCC to contact an approach control.

a. Radar Approach Control

(1) Arriving aircraft are either cleared to an outer fix most appropriate to the route being flown with vertical separation and, if required, holding information or, when radar handoffs are effected between the ARTCC and approach control, or between two approach control facilities, aircraft are cleared to the airport or to a fix so located that the handoff will be completed prior to the time the aircraft reaches the fix. When radar handoffs are utilized, successive arriving flights may be handed off to approach control with radar separation in lieu of vertical separation. After release to approach control, aircraft are vectored to the appropriate final approach course (ILS, VOR, ADF, etc.). Radar vectors and altitude/flight levels will be issued as required for spacing and separating aircraft. *Therefore, pilots must not deviate from the headings issued by approach control.* The radar vector issued for interception of the final approach course will be such as to enable the pilot to establish his aircraft on the final approach course prior to reaching the approach fix. Aircraft will be cleared for approach at the time the final heading for interception of the final approach course is issued, or after the aircraft is established on the final approach course prior to passing the approach fix. When established on the final approach course, radar separation will be maintained and the pilot will be expected to complete the approach utiliz existing approach aids (ILS, radio beacons, etc.) as primary means of navigation. Therefore, *pilots m not deviate from the normal final approach course unl a clearance to do so is received from Air Traffic Cont* After passing the approach fix (outer marker, ra range ,etc.) on final approach, aircraft are expected proceed direct to the airport and complete the appro or effect the missed approach procedure published that airport.

● (2) IFR aircraft may be descended to the m mum vectoring altitude, vectored to a position in airport traffic pattern and cleared for a "visual proach" whenever the reported ceiling is at least feet above the minimum vectoring altitude and the v bility is three miles or more. With a "visual approa clearance, the pilot operating on an IFR flight plan n deviate from the prescribed instrument approach p cedure and proceed to the airport with visual refere to the surface, maintaining VFR conditions at all tin This procedure will afford a more expeditious service arriving aircraft and preclude unnecessary vectoring the final approach course of a published instrument proach procedure.

● (3) Clearance for a visual approach is issu when:

(a) The pilot of an aircraft not following a p ceding aircraft reports sighting the airport and tower controller has the aircraft in sight, or

(b) An aircraft is positioned behind a preced aircraft and the pilot of the succeeding aircraft ports sighting that aircraft.

● (4) Radar separation is provided from any p ceding IFR aircraft until the clearance for a visu approach is issued. Pilots cleared for a visual approa are reminded to advise ATC whenever they are una to continue following the preceding aircraft and/or th encounter less than basic VFR weather conditio Radar service will be terminated when the pilot is t to contact the tower. The tower will assign a landing quence number.

INSTRUMENT APPROACH

1. GENERAL

a. Instrument approach procedures are depicted Coast and Geodetic Survey Approach and Landing Char Air Traffic Control may suggest a specific instrum approach procedure to expedite traffic. This is usua accomplished by issuing a clearance for the specific proach. If the pilot of the aircraft does not desire su approach he may request a different type of approa However, it may be necessary for Air Traffic Control withhold a clearance for the different approach until su time as traffic conditions permit. Under such circu stances the pilot of the approaching aircraft may acc the suggested approach or wait for a different approa The omission of a specific type of approach in the cle ance, "Cleared for Approach," indicates to the pilot a approved type of approach may be used at his discreti and he should begin descent to approach altitude as so as possible. Normally, traffic conditions require A Traffic Control to issue a clearance specifying the type approach. If the pilot is involved in an emergency sit ation, he will be given priority in the type of approa as may be necessary under the circumstances.

INSTRUMENT APPROACH (Con't)

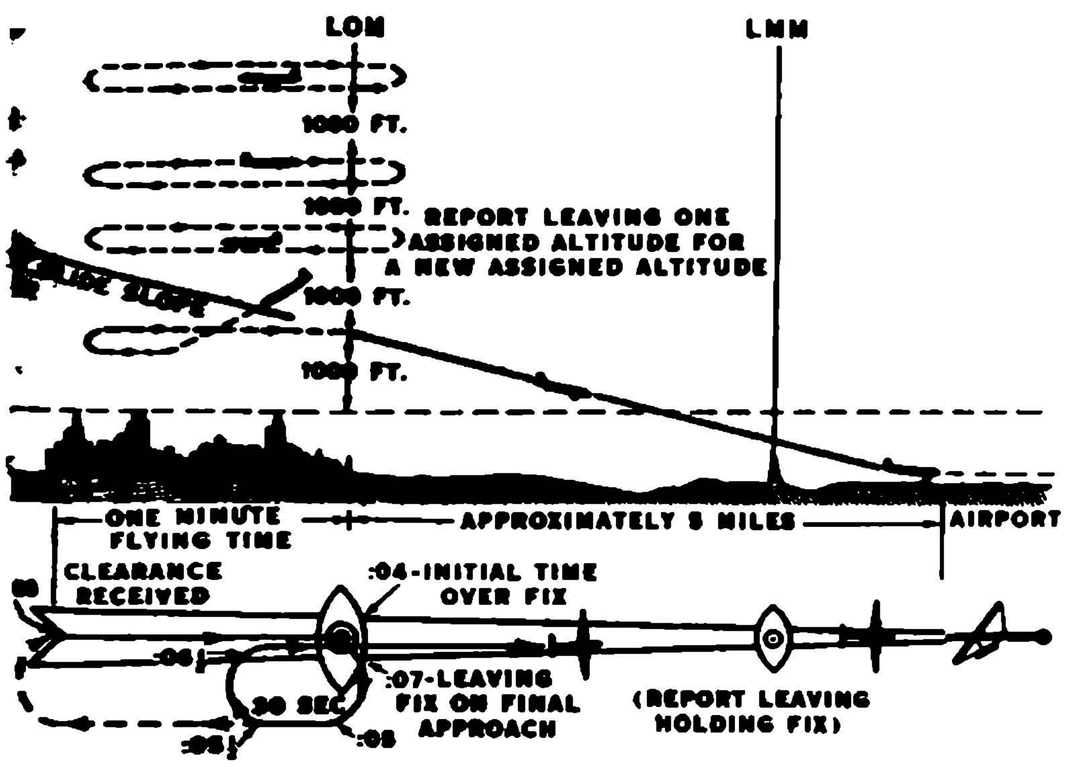
b. If the pilot is not familiar with the specified approach procedure, Air Traffic Control should be advised and the clearance will include detailed information on the execution of the specified approach. When an approach involves a procedure turn, the turn normally shall be executed within a distance of ten miles from the facility. However, in order to provide adequate separation from departing traffic, Air Traffic Control may specify the point at which the turn shall be executed (expressed in minutes or miles outbound from the facility) which will be consistent with the limitations of the pecific approach procedure for the airport.

2. INSTRUMENT APPROACH FROM HOLDING PATTERN

a. Each pilot in an approach sequence will be given advance notice as to the time he should leave the holding point on approach to the airport. When a time to leave the holding point has been received, the pilot should adjust his flight path to leave the fix as closely as possible to the designated time.

Example:

The dotted line indicates a 1-minute holding pattern, the solid line indicates the aircraft flight path from the time clearance was received.



b. At 12:03 local time, in the example shown, a pilot holding, receives instructions to leave the fix inbound at 12:07. These instructions are received just as the pilot has completed turn at the outbound end of the holding pattern and is proceeding inbound towards the fix. Arriving back over the fix, the pilot notes that the time is 12:04 and that he has three minutes to lose in order to leave the fix at the assigned time. Since the time remaining is more than two minutes, the pilot plans to fly a race pattern rather than a 360° turn, which would use up two minutes. The turns at the ends of the race track pattern will consume approximately two minutes. Three minutes to go, minus two minutes required for turns, leaves one minute for level flight. Since two portions of level flight will be required to get back to the fix inbound, the pilot halves the one minute remaining and plans to fly level for 30 seconds outbound before starting his turn back toward the fix on final approach. If the winds were negligible at flight altitude, this procedure would bring the pilot inbound across the fix precisely at the specified time of 12:07. However, if the pilot expected a headwind on final approach, he should shorten his 30 seconds outbound course somewhat, knowing that the wind will carry him away from the fix faster while outbound and decrease his ground speed while returning to the fix. On the other hand, if the pilot knew he would have a tailwind on final approach ,he should lengthen his calculated 30-second outbound heading somewhat, knowing that the wind would tend to hold him closer to the fix while outbound and increase his ground speed while returning to the fix.

3. LANDING PRIORITY

a. A clearance for a specific type of approach (ILS, ADF, VOR or Straight-in Approach) to an aircraft operating on an IFR flight plan does not mean that landing priority will be given over other traffic. Traffic control towers handle all aircraft, regardless of the type of flight plan, on a "first-come, first-served" basis. Therefore, because of local traffic or runway in use, it may be necessary for the controller, in the interest of safety to provide a different landing sequence. In any case, a landing sequence will be issued each aircraft as soon as possible to enable the pilot to properly adjust his flight path.

4. LANDING MINIMUMS

a. The minimum ceiling and visibility requirements for civil pilots making instrument approaches at civil airports are included on Standard Instrument Approach Procedures.

b. The following procedures are applicable to all arriving IFR civil aircraft conducting published instrument approaches.

c. When an official weather report is made available to the controller which indicates that weather conditions are below the minima published for the particular approach being executed or to be executed, ATC will:

(1) Issue the weather report to all arriving IFR aircraft.

(2) Advise pilots of other than military or scheduled air carrier aircraft that the reported weather is below the published minima and request such pilots to advise their intentions.

Example:

WEATHER (Weather Report). THIS IS BELOW PUBLISHED MINIMA FOR (Type of Approach) APPROACH. ADVISE INTENTIONS.

(3) Issue approach clearance, landing clearance or other clearances and/or instructions, as appropriate, in accordance with each pilot's stated intentions and the traffic situation. Each landing clearance shall be expressly qualified with the phrase "IF YOU HAVE LANDING MINIMA".

Example of Landing Clearance:

CLEARED TO LAND IF YOU HAVE LANDING MINIMA.

NOTE.—The foregoing procedures are predicated on the basis that: The Weather Bureau Report, RVR reading and/or runway visibility report, as appropriate, constitutes the official weather report, and the weather minima published for the particular approach on Instrument Approach Procedure Charts, as amended by NOTAMs, if any, are applicable. The pilot is governed by and will be observing the provisions, of Part 600.4/G/ Regulations of the Administrator.

INSTRUMENT APPROACH (Con't)

5. MONITORING ILS

a. Communications should be established with the appropriate FAA control tower or with the FAA Flight Service Station ,where there is no control tower, prior to starting an ILS approach. This is in order to receive advisory information as to the operation of the facility. It is also recommended that the aural signal of the ILS be monitored during an approach to assure continued reception and receipt of advisory information.

6. MISSED APPROACH

a. When a landing is not completed after an instrument aproach, a pilot shall follow the prescribed missed approach procedure (unless an alternate missed approach procedure is specified by Air Traffic Control) and obtain further clearance from Air Traffic Control. The flight then may request clearance for another approach. Traffic permitting, an approach clearance may be issued immediately or the flight may be required to hold until clearance for approach can be issued. A pilot may, at any time, request clearance to an alternate airport.

RADAR MONITORING OF INSTRUMENT APPROACHES

1. When approaches are being monitored by radar, the radar advisories serve only as a secondary aid, since the pilot has selected the ILS or other navigational aid as the primary aid for the approach.

●2. At FAA radar locations, all instrument approaches made on navigational aids whose final approach course from the final approach fix to the runway coincides with the Precision Approach Radar (PAR) course and whose final approach fix lies within the coverage of PAR will be monitored and radar advisories furnished to the pilot whenever the reported weather is below basic VFR minima (1000 and 3).

3. Prior to starting final approach, the pilot will be advised of the frequency on which the advisories will be transmitted. This will normally be the ILS localizer voice channel. If, for any reason, radar advisories cannot be furnished, the pilot will be so advised.

●4. Advisory information, derived from radar observations, includes information on:

a. Passing the final approach fix. (At this point, the pilot may be requested to report sighting the approach lights or the runway.)

b. Distance above or below the prescribed glide path (*this information given only to those aircraft executing an ILS approach*) and/or the distance left or right of the prescribed final approach course when an aircraft exceeds the elevation and/or azimuth safety zones indicated on the PAR display.

NOTE.—Altitude information is not transmitted to aircraft executing other than ILS approaches because the descent portions of these approaches generally do not coincide with the depicted PAR glide path.

c. A situation which, in the judgment of the controller, is likely to affect the safety of the flight.

●5. Radar advisories and radar service will be terminated and the pilot so informed when:

a. The pilot reports the approach lights or the runway in sight, or

b. The aircraft reaches the ILS middle marker o point corresponding in distance to the point where glide slope intercepts 200 feet elevation, whichever closer to the end of the runway.

SPEED ADJUSTMENT OF ARRIVING AIRCRAF

1. To avoid excessive vectoring in the establishment arrival sequences, pilots of radar-controlled arriving craft which are transitioning from en route to the de nation airport may be requested by ATC to adjust craft speeds in accordance with the following:

a. All speed adjustment requests shall be expres in terms of knots and shall be predicated on indica air speed (IAS).

b. Speed adjustment procedures shall not be appl to flights conducting published jet penetrations.

c. Pilots complying with speed adjustment reque will be expected to maintain a speed within plus or mi ten knots of the specified speed.

d. Approach clearances supersede speed adjustm assignments and pilots are expected to effect their o speed adjustments, as necessary, to complete the proach. If it is determined by ATC that speed adjt ment procedures are no longer required prior to issuance of an approach clearance, the pilot of the craft concerned shall be advised to resume normal spe

e. Unless prior concurrence in the use of a lo speed is obtained, speed adjustment requests for an ar ing flight to maintain a specified speed will be made accordance with the following minima:

(1) To multi-engine turbojet and propeller-driv aircraft which are operating more than 30 nautical mi from destination airport:

A SPEED NOT LESS THAN 250 KNOTS IA

(2) To multi-engine turbo jet and propeller-driv aircraft which are operating 20 to 30 nautical miles fr destination airport, and

(a) At or above 10,000' MSL:

A SPEED NOT LESS THAN 250 KNO IAS; or

(b) Below 10,000' MSL:

A SPEED NOT LESS THAN 200 KNOTS IA

(3) To multi-engine jet aircraft which are op ating less than 20 nautical miles from destination airpo

A SPEED NOT LESS THAN 180 KNOTS IA or

(4) To multi-engine propeller-driven aircraft whi are operating less than 20 nautical miles from destinati airport:

A SPEED NOT LESS THAN 150 KNOTS IA

NOTE.—Controllers have been advised that utilization the minimum speeds set forth above for propeller-driven craft will sometimes be impractical, since some aircraft this category cruise at lower speeds and cannot attain speeds specified.

f. Speed adjustment of multi-engine propeller-driv aircraft which cannot attain the minimum speeds forth above, or of single-engine aircraft, shall be acco plished by requesting such flights to, if practicable:

(1) Maintain a specified speed equivalent to th of the preceding/succeeding aircraft; or

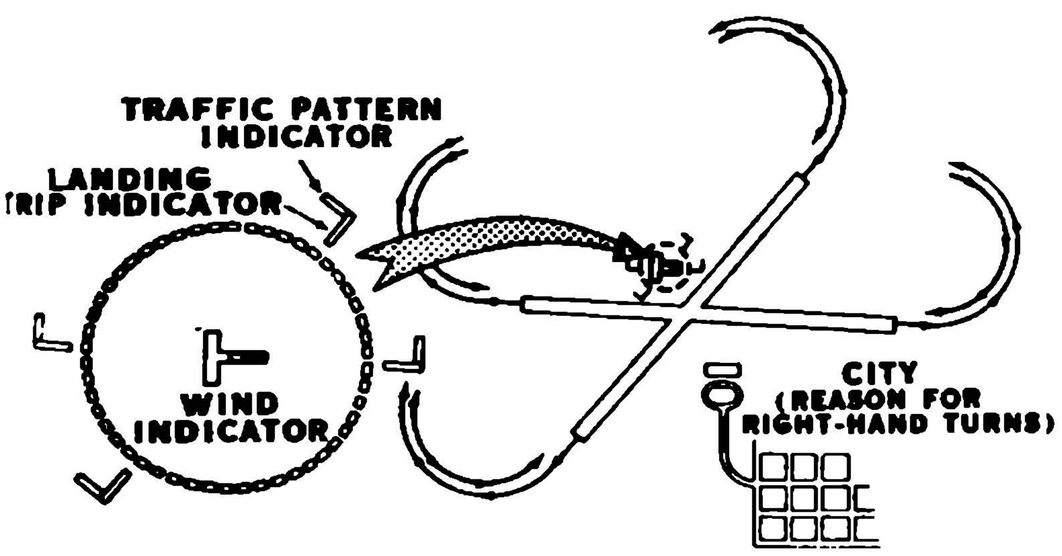
(2) Increase or decrease speed utilizing incremen of 10 knots or multiples thereof.

2. The pilots retain the perogative of rejecting t application of speed adjustment by ATC, if in his opinio it will adversely affect the operating characteristics the aircraft. In such cases, the pilot is expected advise ATC of the speed that will be used.

LANDING

TRAFFIC PATTERN DIRECTION

1. The segmented circle system consists of the following components: A wind indicator (sock) will be found at the center of the circle. Associated with the wind indicator and also located at the center of the circle, is the landing direction indicator, which may be a tetrahedron or tee, either free swinging or set for a particular runway. Although appearing as a single unit, the L-shaped indicator located at various positions around the segmented circle or at the end of a runway actually consists of two parts. That portion of the L in alignment with or parallel to a runway is known as the landing strip indicator. The other section of the L running at a right angle to the runway is known as the traffic pattern indicator.



2. Preparatory to a landing, the pilot should concern himself with the indicator for the approach end of the runway to be used. If the pilot will mentally enlarge the indicator for the runway to be used, the base and final approach legs of the traffic pattern to be flown immediately become apparent. Similar treatment of the indicator at the departure end of the runway will clearly indicate the direction of turn to join the cross wind leg of the traffic pattern after takeoff.

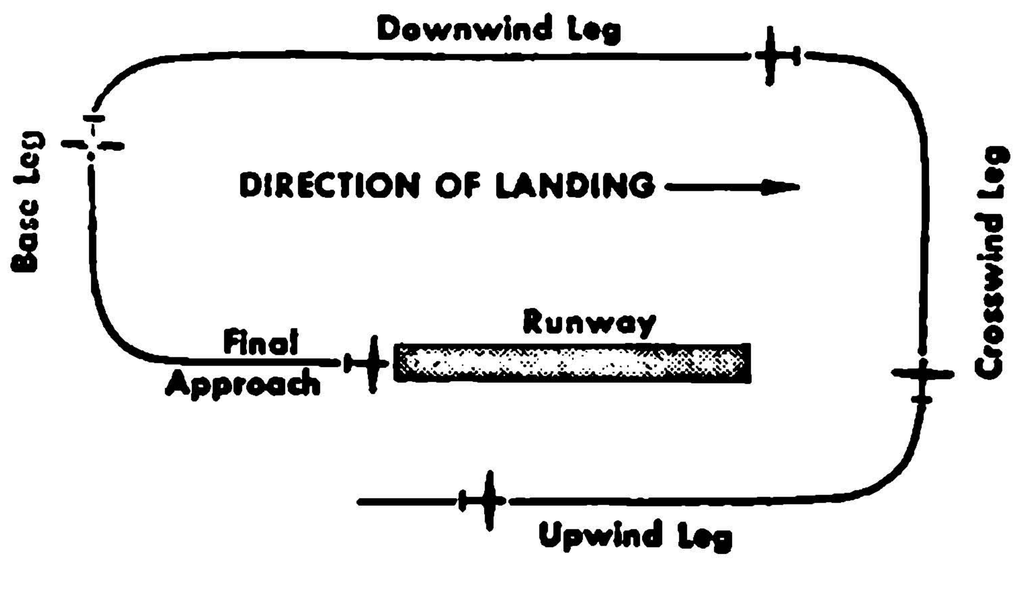
3. A flashing amber light in the center of the segmented circle or on top the control tower or adjoining building indicates clockwise flow of traffic is in effect at that time and that right turns shall be made unless otherwise authorized by Air Traffic Control.

4. Right hand flow of traffic may also be shown by indicators located at either the segmented circle or ends of the runway. A pilot may determine the direction of traffic flow by circling the airport at an altitude above the airport traffic area.

5. At airports where traffic control is exercised by a control tower, traffic and taxi patterns have been established to specify the desired flow of ground and air traffic operating on and in the vicinity of an airport. If the traffic pattern is not known, follow other traffic unless otherwise advised. Control tower operators issue clearances or other information to pilots as necessary for aircraft to generally follow the desired flight path (traffic patterns) when flying the airport traffic area/control zone and the proper taxi routes (taxi patterns) when operating on the ground.

6. The following terminology for the various components of a traffic pattern has been adopted as standard for use by control towers and pilots:

STANDARD TRAFFIC PATTERN COMPONENTS



Upwind leg—A flight path parallel to the landing runway in the direction of landing.

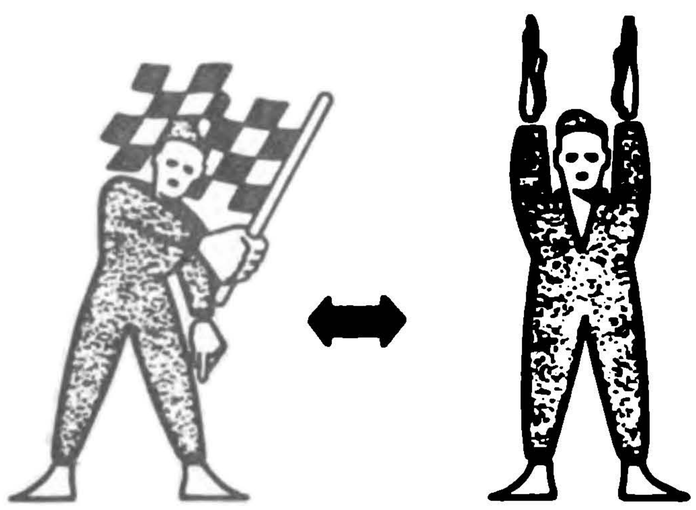
Crosswind leg—A flight path at right angles to the landing runway off its upwind leg.

Downwind leg—A flight path parallel to the landing runway in the direction opposite to landing.

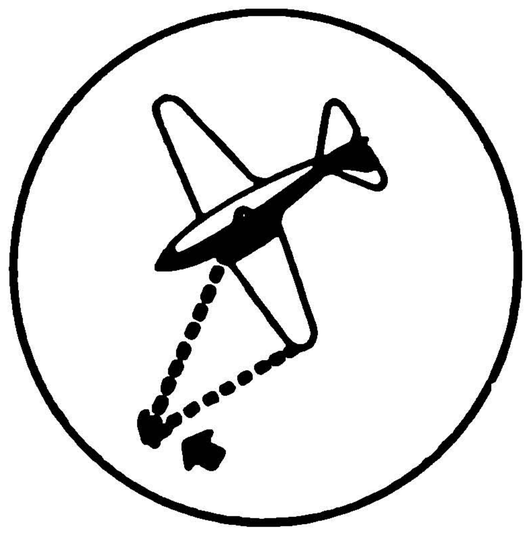
Base leg—A flight path at right angles to the landing runway off its approach end and extending from the downwind leg to the intersection of the extended runway center line.

Final approach—A flight path in the direction of landing along the extended runway center line from the base leg to the runway.

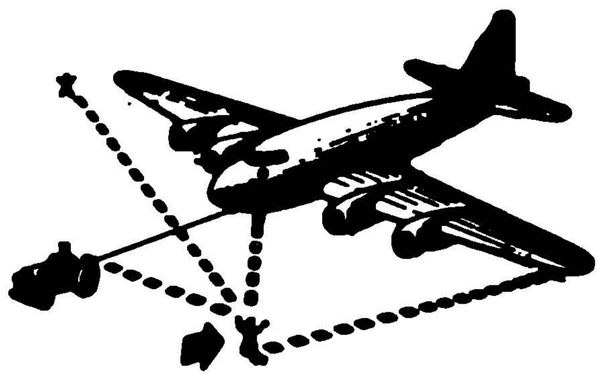
HAND SIGNALS



FLAGMAN DIRECTS PILOT TO SIGNALMAN IF TRAFFIC CONDITIONS REQUIRE



SIGNALMAN'S POSITION

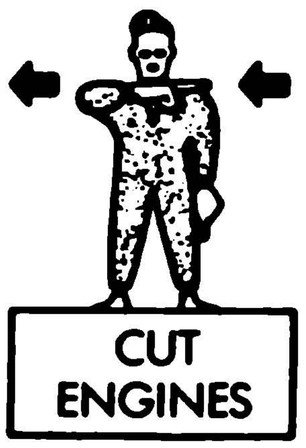


SIGNALMAN DIRECTS TOWING

STOP

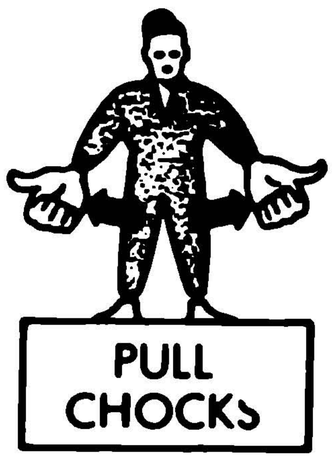
COME AHEAD

EMERGENCY STOP

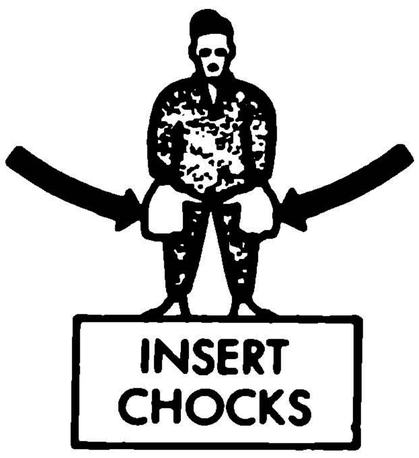


CUT ENGINES

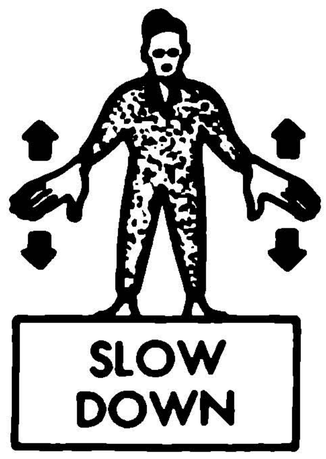
START ENGINES



PULL CHOCKS



INSERT CHOCKS



SLOW DOWN

ALL CLEAR (O.K.)

LEFT TURN

RIGHT TURN

NIGHT OPERATION

GENERAL

U.S. ENTRY AND DEPARTURE REQUIREMENTS

GENERAL

a. Air Commerce Regulations of the United States art 6, place certain responsibilities upon owners and erators of aircraft engaging in flight to/from foreign untries.

b. Customs, and the other agencies concerned, desire facilitate air travel to the fullest extent possible while rrying out their responsibilities. Plane operators can sist greatly by familiarizing themselves with the regutions and by complying with them under all circumances. Failure to do so may incur substantial penalances. Failure to do so may incur substantial penalties.

c. The following sets forth principal requirements of ncern to private plane operators engaging in interational flights.

ARRIVAL AND DEPARTURE MANIFESTS

All aircraft departing from the continental United tates or Alaska for Canada or the French Islands of t. Pierre or Miquelon are exempt from filing an arrival r departure manifest. Aircraft arriving from any other lace are required to file arrival and departure manifests. owever, the Immigration and Naturalization Service es not inquire private aircraft not carrying passengers r hire to file an arrival or departure manifest when rriving from or departing for Mexico.

. ADVANCE NOTICE REQUIRED

a. Advance notice of each arrival must be furnished .S. Customs officials at or nearest the place of intended rst landing who will notify the Immigration and Public ealth Service is required for entry to the Virgin Islands.

b. Advance notice should be sent so as to be received sufficient time to enable the officers designated to spect the aircraft to reach the place of landing before rrival of the aircraft. At those airports where full time stoms service is not available, *at least one hour adance notice is required for this purpose.*

c. Notification may be made by telephone, which is referable, by telegram or by radio. The notice should pecify the following: (1) Type of aircraft; (2) Identication; (3) Name of pilot; (4) Place of last departure; 5) Airport of entry; (6) Number of alien and citizen assengers, and (7) estimated time of arrival. (Indicatg whether C.S.T., E.S.T., etc.) Private aircraft arrivg from Canada or Mexico may request that advance otice of arrival to customs officers be included in the *ight plan* filed in those countries if destined to an airort in the U.S. where flight notification service is availble. At a landing rights airport such notices will then e treated as applications for permision to land.

d. Aircraft may use the following method of notifying ustoms when departing from a country or remote area here a pre-departure flight plan cannot be filed or an "advise customs" message cannot be included in a predeparture flight plan. Call the nearest domestic or international FAA Flight Service Station as soon as it is estimated that radio communications can be established and file a VFR (DVFR) flight plan and include as the last item "advise customs." The station with which such a flight plan is filed will forward it to the appropriate FAA station who will notify the customs office responsible for the destination airport.

e. If the pilot fails to include "advise customs" in the radioed flight plan, it will be assumed that he has made other arrangements and FAA *will not* advise customs.

f. FAA assumes no responsibility for any delays in advising customs if the flight plan is given to FAA too late for delivery to customs before arrival of the aircraft. FAA cannot relay an "advise customs" flight plan if the pilot indicates a destination airport where flight service notice to customs is NOT available.

4. AIRPORTS FOR ENTRY AND REENTRY

a. If the operator of a private aircraft returning to or visiting the United States wishes to *land at any airport of entry, advance notice of arrival* is necessary. This advance notice should be sent also to the immigration and public health officers at or nearest the intended place of first landing.

b. If he intends to land at a place *not designated as an airport of entry, he must obtain permission to make such landing, and give advance notice of arrival* to the customs office nearest the intended place of first landing. It is not necessary that separate requests be sent to immigration and public health officers in these cases.

c. **What to report**—The advance notice should specify the type of aircraft, registration marks, name of commander, place of last departure, international airport, number of alien passengers, number of citizen passengers, and the estimated time of arrival. *This advance notice should be sent in time to enable officers designated to inspect the aircraft to reach the place of landing before the plane arrives.*

d. Upon arrival, the operator and passengers will be examined in the same manner as any international traveler. They must declare any articules acquired aboard. If passengers or cargo are carried for hire, an inward manifest must be filed. Customs officers will supply forms for both types of declarations.

5. EMERGENCY

If an emergency landing is made in the United States, the plane operator should report as promptly as possible to the nearest customs, immigration, and public health officers. He should not permit any merchandise or baggage to be removed, or any passengers to depart without official permission unless necessary for preservation of life or property.

U.S. ENTRY AND DEPARTURE (Con't)

6. CHARGES

a. No charges are made for services during business hours *when a landing takes place at any airport of entry: except* that, when an aircraft arrives on Sunday or holiday, or during other than regular hours, OVERTIME PAY WILL BE COLLECTIBLE. These charges are required by law. They may amount to as much as two days' pay for each officer for any services performed on a Sunday or holiday. However, the charges are prorated where more than one aircraft is processed.

b. *If the landing is made at a place other than an airport of entry*, any expenses incurred by Government officers in going to and from the place of landing are payable by the plane operator. In addition, if the aircraft arrives on a Sunday or holiday, or during other than regular hours, OVERTIME PAY WILL BE COLLECTIBLE.

7. TRANSBORDER FLIGHTS TO CANADA

a. Customs regulations allow the clearance by telephone of private aircraft departing for Canada and not carrying cargo.

b. If not carrying cargo, passengers for hire, nor departing to pick up pasengers for hire at points in Canada, a private aircraft departing for Canada does not require a clearance of any type.

c. If carrying passengers for hire or departing to pick up passengers for hire at points in Canada and not carrying cargo, approval of clearance may be applied for by telephone when consideration of distance and expense or, in an emergency, time are present.

d. For Buffalo-Niagara area apply to the supervisory inspector at the Peace Bridge at Buffalo or to the supervisory inspector at the Rainbow Bridge at Niagara Falls. The telephone number at the Peace Bridge is GRant 1180 and at the Rainbow Bridge BUtler 2–4562. When approval of the clearance is obtained from the Peaece Bridge, the general outward declaration should be mailed to United States Customs, Peace Bridge, Buffalo, New York. Similarly, when approval of clearance is obtained from the Rainbow Bridge, the general outward declaration should be mailed to United States Customs, Rainbow Bridge, Niagara Falls, New York.

e. Special arrangements have been made with Canada and Mexico that substantially differ from the requirements outlined above. Complete details are included in the International Flight Information Manual which can be obtained from Supt. of Documents, Govenrment Printing Office, Wash., D.C. 20402.

8. AIRPORTS OF ENTRY

a. Any aircraft may land at one of the following airports and permission to land from U.S. Customs is not required. However, advance notice of arrival must be furnished to U.S. Customs. This may be included in your *flight plan* filed in Canada or Mexico if destined to an airport where flight notification service is available.

Alaska

Juneau/Juneau SPB
Juneau/Juneau Mun
Ketchikan/Ellis Airlines SPB
*Wrangell/Wrangell SPB

Arizona

Douglas/Bisbee-Douglas Arpt
Tucson/Tucson Intl
Nogales/Nogales Intl
Yuma/Yuma Intl

California

Calexico/Calexico Mun
San Diego/San Diego Mun (Lindbergh Fld)

Florida

Fort Lauderdale/Ft. Lauderdale–Hollywood Intl
Key West/Key West Intl
Miami/Miami Intl
Miami/Chalk SPB
Tampa/Tampa Intl
West Palm Beach/Palm Beach Intl

Illinois

Chicago/Chicago Midway

Maine

Caribou/Caribou Mun

Michigan

Detroit/Detroit Mun
Detroit/Detroit Metropolitan Wayne County
Port Huron/St Clair County Arpt
Saulte Ste Marie/Saulte Ste Marie Mun

Minnesota

Baudette/Baudette Mun
Duluth/Duluth Intl
Duluth/Sky Harbor Arpt
International Falls/Falls Intl
Rainer/Rainer Intl SPB

Montana

Cut Bank/Cut Bank Arpt
Great Falls/Great Falls Intl
Havre/Havre City County Arpt

New York

Albany/Albany County
Buffalo/Greater Buffalo Intl
Malone/Malone-Dufort Arpt
†Massena/Richards Fld
Ogdensburg/Ogdensburg Mun
Rochester/Monroe County
Rouses Point/Rouses Point SPB
†Watertown/Watertown Mun

North Dakota

Grand Forks/Grand Forks Intl
Minot/Minot Intl
Pembina/Pembina Mun
Portal/Portal Mun Arpt
Williston/Sloulin Fld

Ohio

Akron/Mun Arpt
Cleveland/Cleveland Hopkins Arpt
*Put-in-Bay/Put-in-Bay Arpt
Sandusky/Griffing-Sandusky Arpt

. ENTRY AND DEPARTURE (Con't)

as
Brownsville/Rio Grande Valley Intl
Del Rio/Del Rio Intl.
Eagle Pass/Eagle Pass Arpt
El Paso/El Paso Intl
Laredo/Laredo Intl
McAllen/Miller Intl

mont
Burlington/Burlington Mun

shington
Bellingham/Bellingham Mun
Friday Harbor/Friday Harbor SPB
Oroville/Dorothy Scott
Port Townsend/Port Townsend–City–County
Seattle/Boeing Fld
Seattle/Lake Union Air Service (Seaplanes)
Spokane/Felts Fld

Indicates Flight Service notification to U.S. Customs not ilable. Flight notification service available to all airports so marked for private flights from Canada to Mexico.
Indicates U.S. Public Health Service inspection not available.

LANDING RIGHTS AIRPORTS

At the following airports an application for permission to land must be submitted in advance to U.S. customs. Advance notice of arrival must also be furnished U.S. Customs. Advance notice of arrival may be included in your flight plan filed in Canada or Mexico if routed to an airport where flight notification service available and this notice will be treated as an application for permission to land.

bama
Mobile/Bates Fld

ska
Anchorage/Anchorage Intl
Annette/Annette Island Arpt
*†Fairbanks/Fairbanks Intl
*†Fort Yukon/Fort Yukon Mun
*†Haines/Mun Arpt
†Northway/FAA Fld
†Petersburg SPB
†Sitka SPB
*†Skagway/Skagway Mun

ifornia
Los Angeles/Los Angeles Intl
San Francisco/San Francisco Intl

lorado
*Denver/Stapleton Fld

nnecticut
*Groton/Trumbull Arpt
Hartford/Brainard Fld
*New Haven/New Haven Mun
*Stratford (Bridgeport)/Bridgeport Mun
Windsor Locks/Bradley Fld

strict of Columbia
Washington/Dulles Intl

Florida
Jacksonville/Imeson Mun
St. Petersburg/Clearwater Intl

Hawaii
Honolulu/Honolulu Intl

Idaho
*†Porthill/SPB

Illinois
Chicago/O'Hare Intl
Chicago/Meigs Fld

Louisiana
New Orleans/New Orleans Intl (Moisant Fld)

Maine
Bar Harbor/Bar Harbor Arpt
*Eastport/Eastport Mun
Houlton/Houlton Mun
*Jackman/Jackman Mun (Newton Fld)
Portland/Portland Mun

Maryland
Baltimore/Friendship Intl

Massachusetts
Bedford/Hanscom Fld
*Beverly/Beverly Mun
Boston/Logan Intl
*Lawrence/Lawrence Mun
*New Bedford/New Bedford Mun
*Westfield/Barnes Arpt
Worcester/Worcester Mun

Michigan
*†Alpena/Phelps-Collins Arpt
*Bay City/James Clements Mun
†Houghton/Houghton County Mem
†Marquette/County Arpt
†Pellston/Emmet County Arpt (Marine Customs available Apr thru Sept, other times emerg only.)
Port Huron/Baker's Fld

Minnesota
*†Crane Lake/Mohr and Handberg's Base
*†Ely/Leithold SPB
Minneapolis/Minneapolis-St. Paul Intl (Wold Chamberlain)
*†Pinecreek/Pinecreek Arpt
*†Ranier/Rainy Lake SPB
*†Warroad/Warroad Mun

Montana
*†Scobey/State County Arpt

Nebraska
†Omaha/Eppley Airfield

New Jersey
Newark/Newark Arpt

New Mexico
Columbus/Columbus Arpt

U.S. ENTRY AND DEPARTURE (Con't)

New York

New York/La Guardia Arpt
New York/John F. Kennedy
Niagara Falls/Niagara Falls Mun
Niagara Falls/Niagara Falls
Point Pleasant/Point Pleasant SPB
Syracuse/Hancock Arpt

North Dakota

*Noonan/Border Arpt

Ohio

†Akron/Akron-Canton Arpt
Cincinnati/Lunke Fld
Cleveland/Burke Lakefront SPB
†Kent/Kent Arpt
Toledo/Toledo Express Arpt
Toledo/National Arpt

Oregon

Portland/Portland Intl

Pennsylvania

Erie/Port Erie Arpt
Philadelphia/Philadelphia Intl
Pittsburgh/Greater Pittsburgh Arpt

Puerto Rico

San Juan/Puerto Rico Intl

Rhode Island

Providence/Theodore Francis Green Arpt

South Carolina

Charleston/Charleston Mun

Texas

Corpus Christi/Corpus Christi Intl Arpt
Dallas/Love Fld
Houston/Houston Intl
San Antonio/San Antonio Intl

Vermont

*Newport/Newport Mun
*Swanton/Warren R. Austin Arpt

Virgin Islands

St. Thomas/Harry S. Truman Arpt

Virginia

Norfolk/Norfolk Mun

Washington

*†Northport/James A. Lowry Arpt
*Port Angeles/Clallam County Arpt
*Port Angeles/Port Angeles Boat Haven
Port Townsend/Port Townsend Bay
Seattle/Seattle-Tacoma Intl
Spokane/Spokane Intl

Wisconsin

†Green Bay/Austin Straubel Arpt
Milwaukee/General Mitchell Fld

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*Indicates Flight Service notification to U.S. Customs available. Flight notification service available to all air not so marked.

†Indicates landing rights may be granted provided the craft is not subject to quarantine inspection by the U.S. lic Health Service. (Sec. 71.46, P.H.S. Foreign Quara Regulations.)

†† Free Customs service is available at the Fairbanks ternational Airport from 1800 GMT to 0300 GMT daily day thru Saturday upon PRIOR notice. Services for Holi Sundays, and AFTER business hours are subject to charges. ALL requests for Customs service must be PRIOR to close of business hours.

ADIZ PROCEDURES (F.A.R. PART 99)

1. An "Airfield" flight plan makes the aircraft sub to interception for positive identification. Pilots strongly urged, therefore, to file DVFR Flight Plans quired for Security Control either in person or by phone. FAA Flight Service Stations will accept col long distance telephone calls made for the purpose filing required DVFR flight plans. The following cedures apply:

a. Contact the long distance telephone operator place a collect, station-to-station call from "SECUR PILOT (your last name)" to the FAA station.

b. When the FAA accepts the call, file your DV flight plan as expeditiously as possible.

2. Pilots should note that FAA stations will not ac collect calls from locations which are obviously m closer to another FAA station, neither will they ac calls which do not contain the key words "SECUR PILOT (name)." In order to conserve governu funds, FAA stations will not accept long distance col calls from any pilot within the Defense Areea. DV flight plans from such points will be accepted, howe if filed at no expense to the government.

DIZ PROCEDURES (Con't)

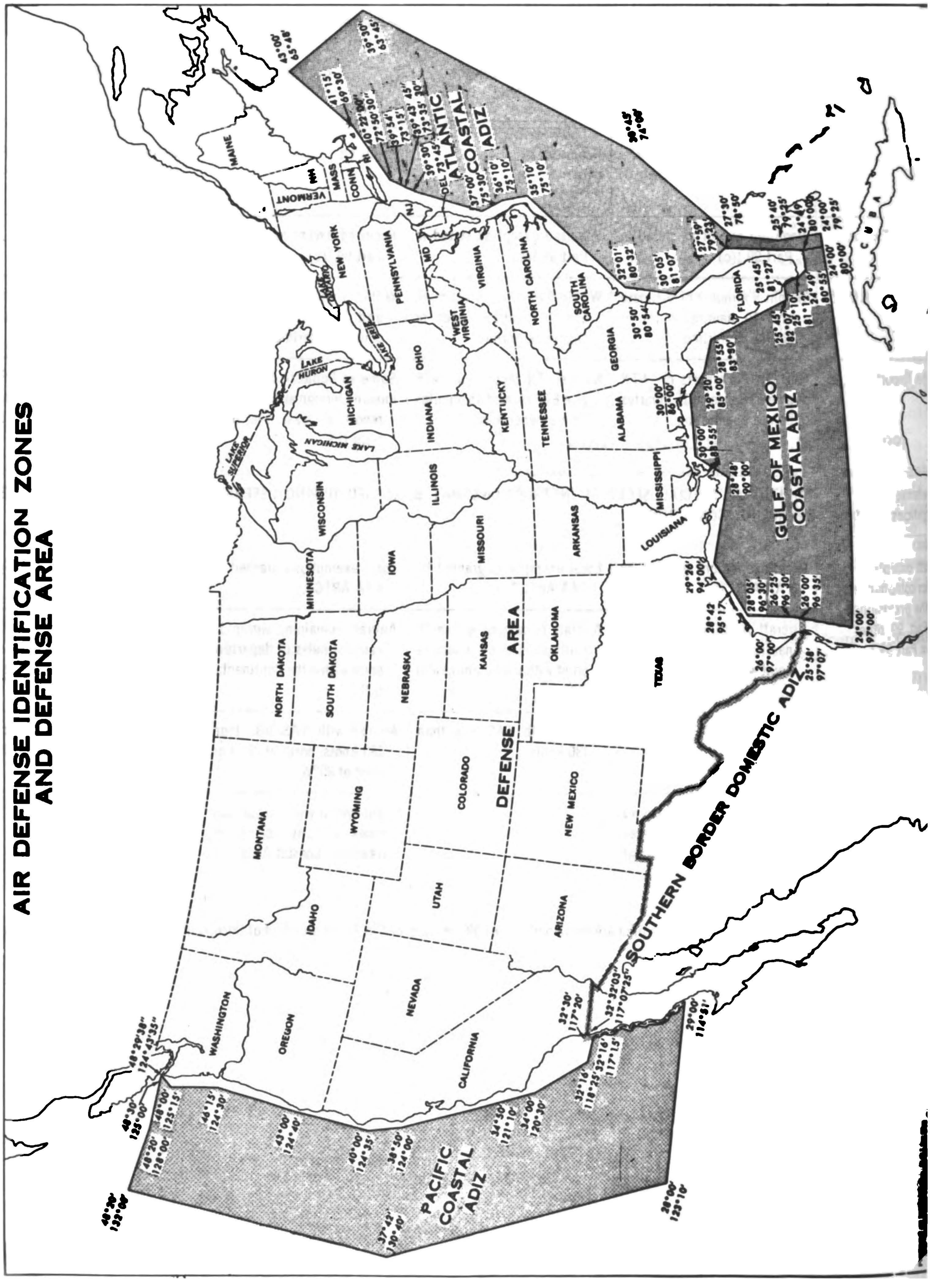
ADIZ Operational Requirements, Abbreviated Form

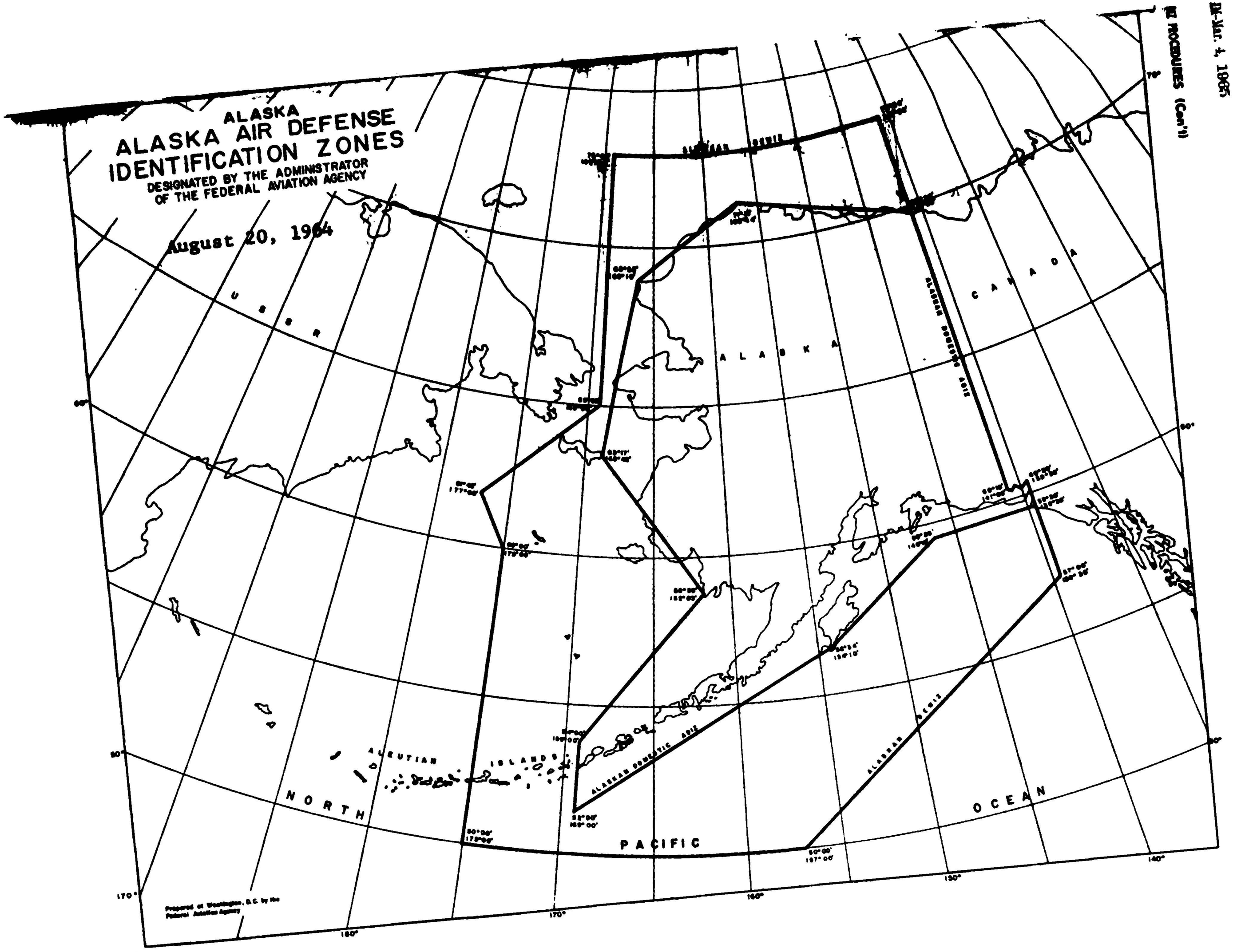
	Southern Border Domestic ADIZ	Alaskan Domestic ADIZ	Coastal ADIZ	DEWIZ
ght Plan	Required for northbound aircraft.	Required	Required	Required before take-off ETDP required. Exception permitted in Part 99.13
ctioning Two-way adio.	Required except as stated in Part 99.1(c)	Required except as stated in Part 99.1(c)	Required except as stated in Part 99.1(c)	Required.
ommended ADIZ olerances	Within 5 minutes of estimate and 10 nautical miles of course centerline.	Within 5 minutes of estimate and 10 nautical miles of course centerline.	Within 5 minutes of estimate and 20 nautical miles of course centerline.	Within 5 minutes of estimate and 20 nautical miles of course centerline.
sition Reports	Normal IFR reports or—VFR give ETP at least 15 minutes before penetration.	Normal IFR reports or—VFR give ETP at least 15 minutes before penetration.	Same as Domestic ADIZ or—inbound foreign aircraft initial report at least one hour from U.S.	Normal IFR reports or—VFR report prior to penetration. Correlation of ground filed data may be requested.
Defense ergencies Part 99.7	ADDITIONAL SPECIAL SECURITY INSTRUCTIONS MAY BE ISSUED DURING DEFENSE EMERGENCY OR AIR DEFENSE EMERGENCY CONDITIONS.			
craft excepted rom compliance o the provisions of Part 99 other han Part 99.7	Local exemptions granted by FAA ARTCC.	Local exemptions granted by FAA ARTCC.	Local exemptions granted by FAA ARTCC.	Local exemptions granted by FAA ARTCC.
	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.	Aircraft remaining within 10 nautical miles of departure point within the Continental U.S.
	Aircraft with TAS less than 180 knots.	Aircraft with TAS less than 180 knots.	Aircraft with TAS less than 180 knots, north of 28°N or west of 85°W.	Aircraft with TAS less than 180 knots—listening watch required.
	Aircraft from U.S. southbound through Southern Border ADIZ not entering Coastal ADIZ.		Flight over or within 3 nautical miles of any island in Hawaiian Coastal ADIZ.	

NOTE: Detailed procedures to be followed by the pilot are contained in Part 99, for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402

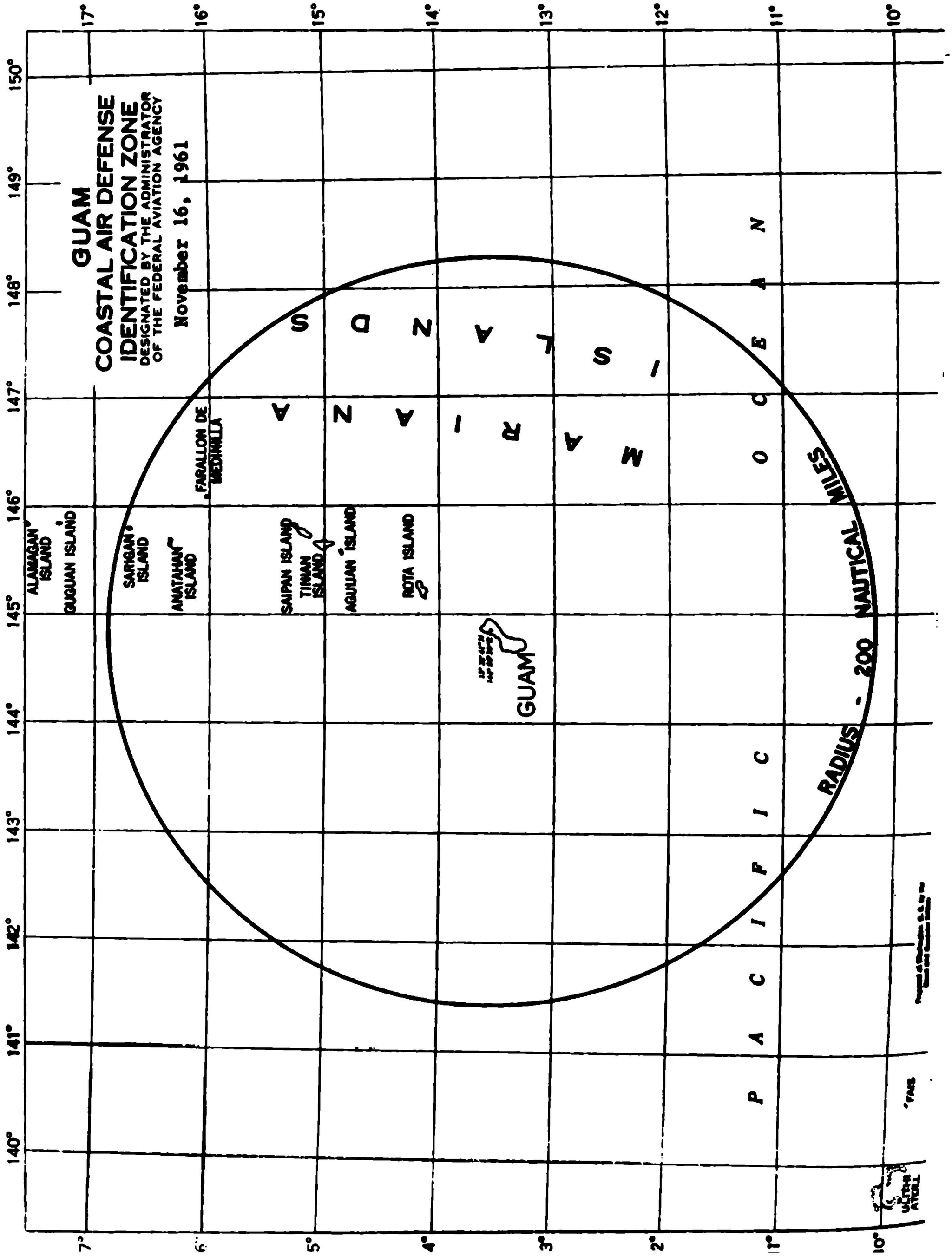
ADIZ PROCEDURES (Con't)

AIR DEFENSE IDENTIFICATION ZONES AND DEFENSE AREA

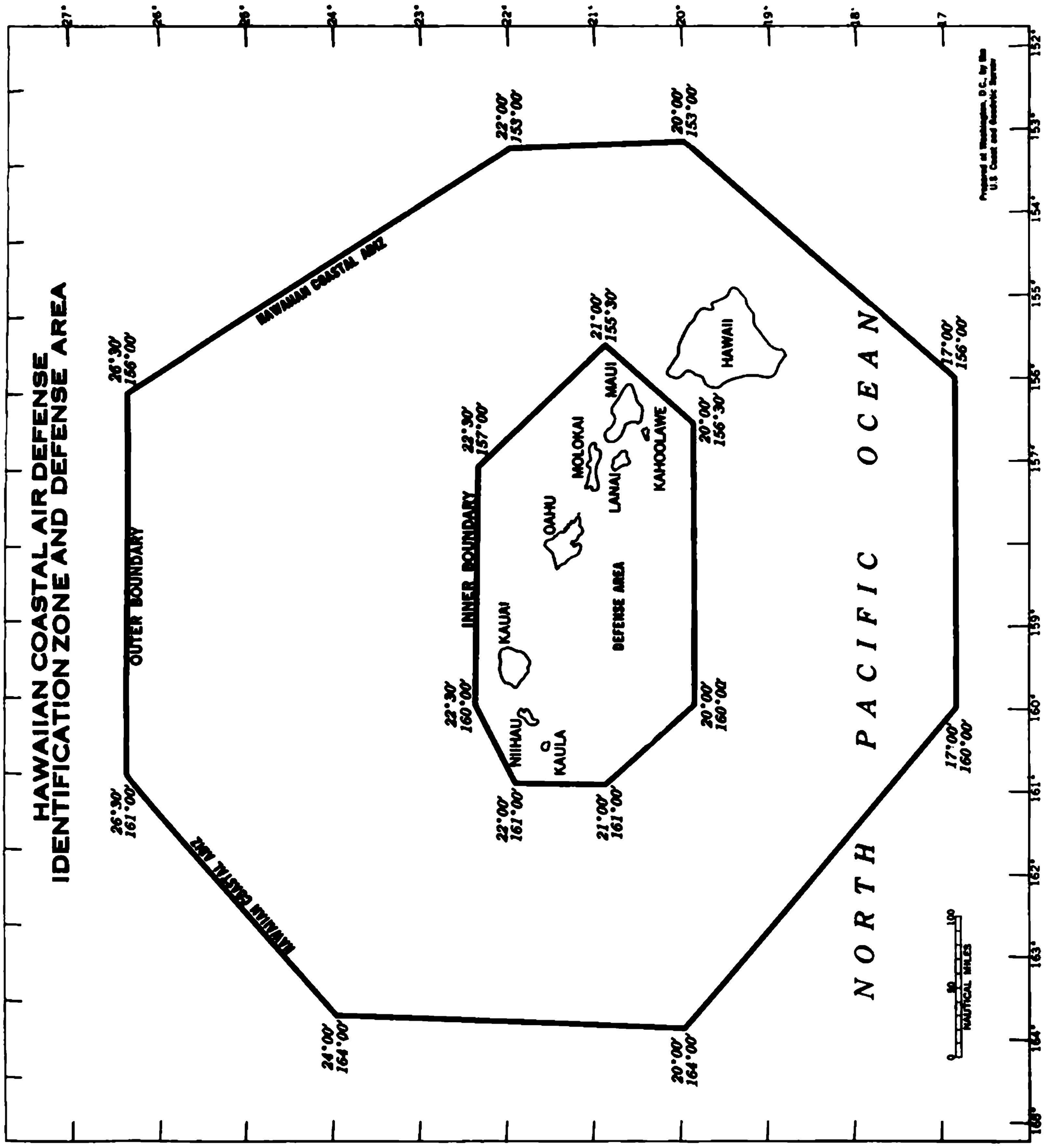



ALASKA
ALASKA AIR DEFENSE
IDENTIFICATION ZONES
DESIGNATED BY THE ADMINISTRATOR
OF THE FEDERAL AVIATION AGENCY
August 20, 1964
U.S.A.
ALASKA
CANADA
ALASKAN DOMESTIC ADIZ
ALASKAN ADIZ
ALEUTIAN ISLANDS
NORTH PACIFIC OCEAN
Prepared at Washington, D.C. by the Federal Aviation Agency

ADIZ PROCEDURES (Con't)



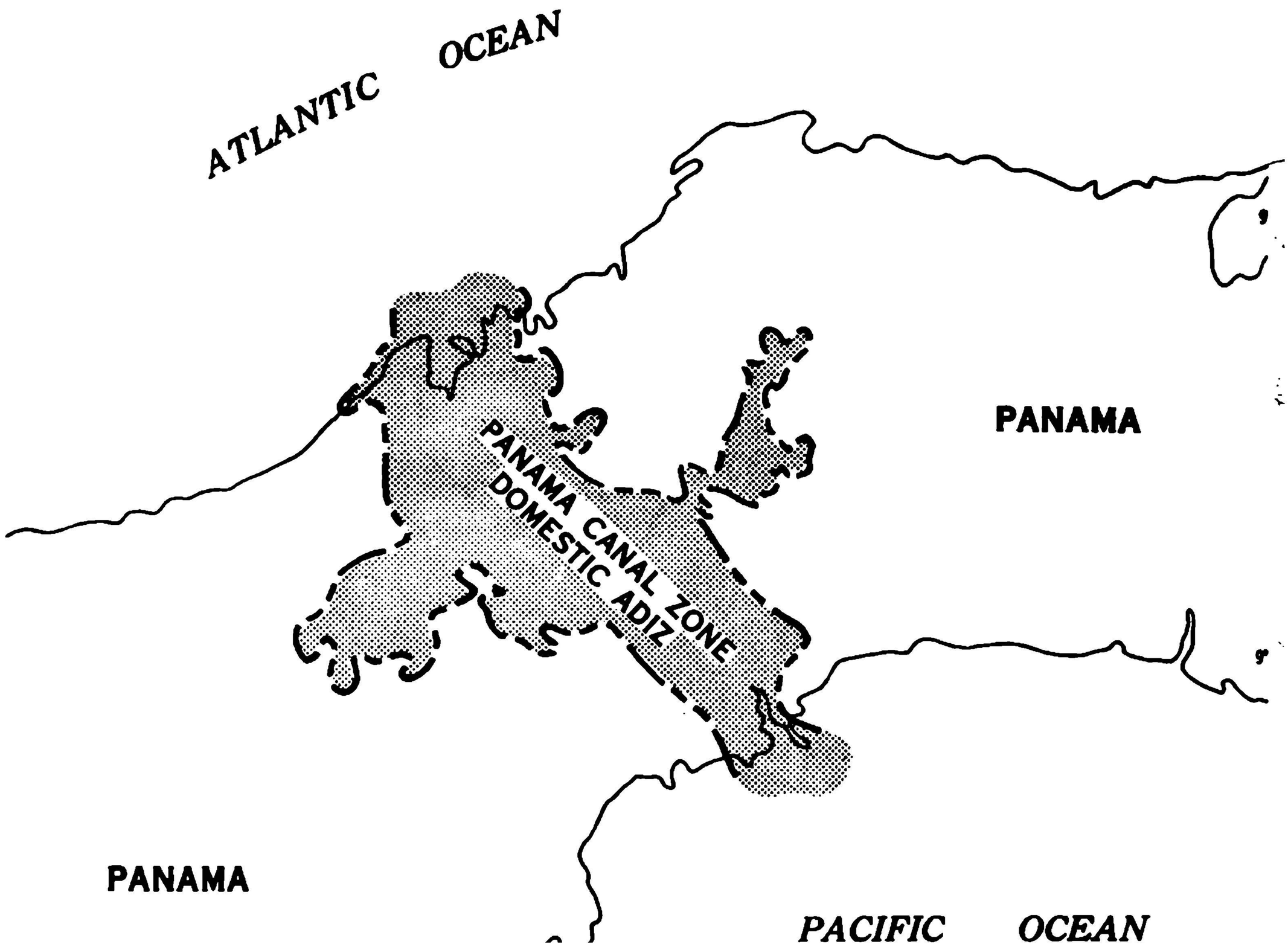
ADIZ PROCEDURES (Con't)



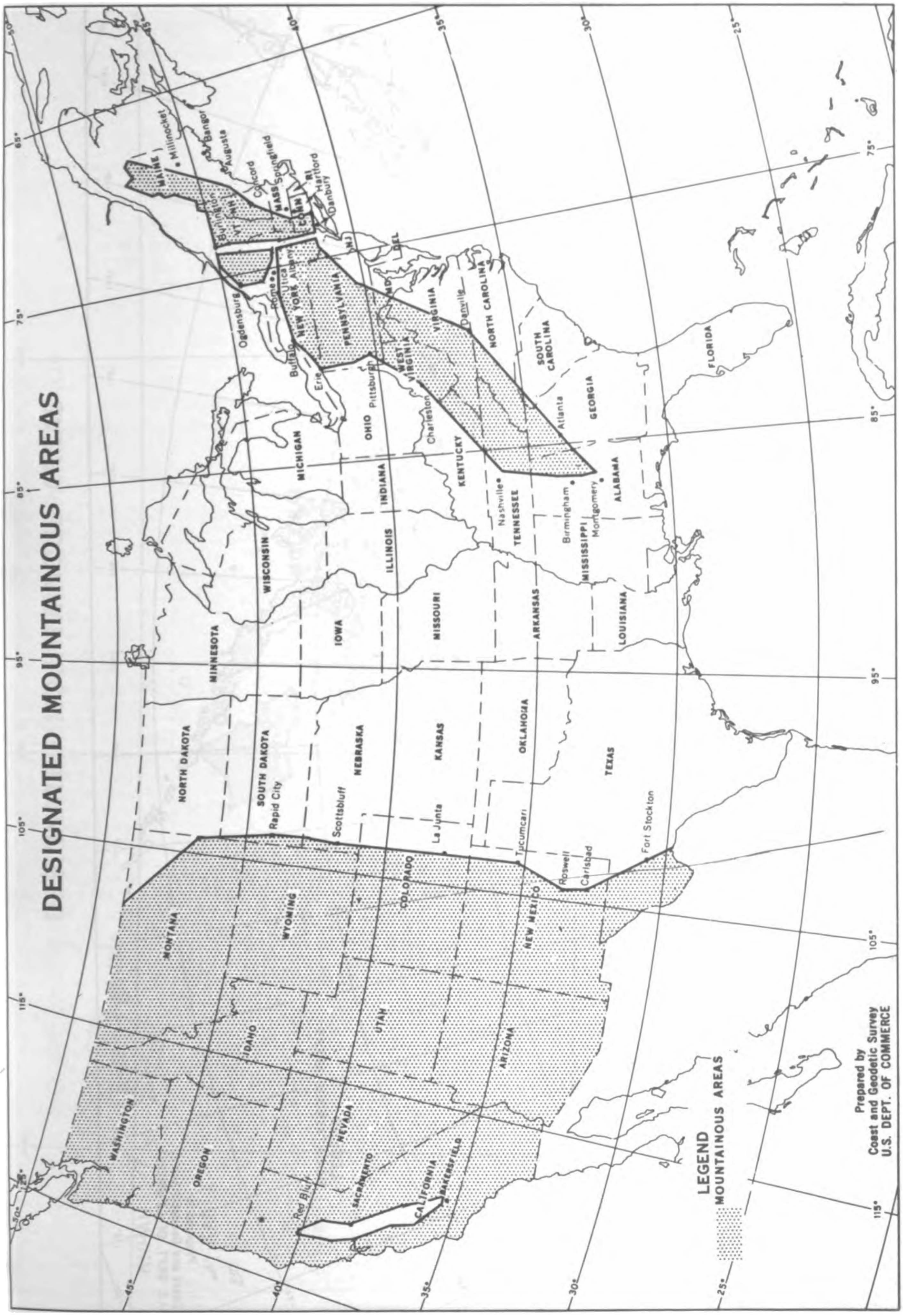
ADIZ PROCEDURES (Con't)

PANAMA CANAL ZONE
DOMESTIC AIR DEFENSE IDENTIFICATION ZONE

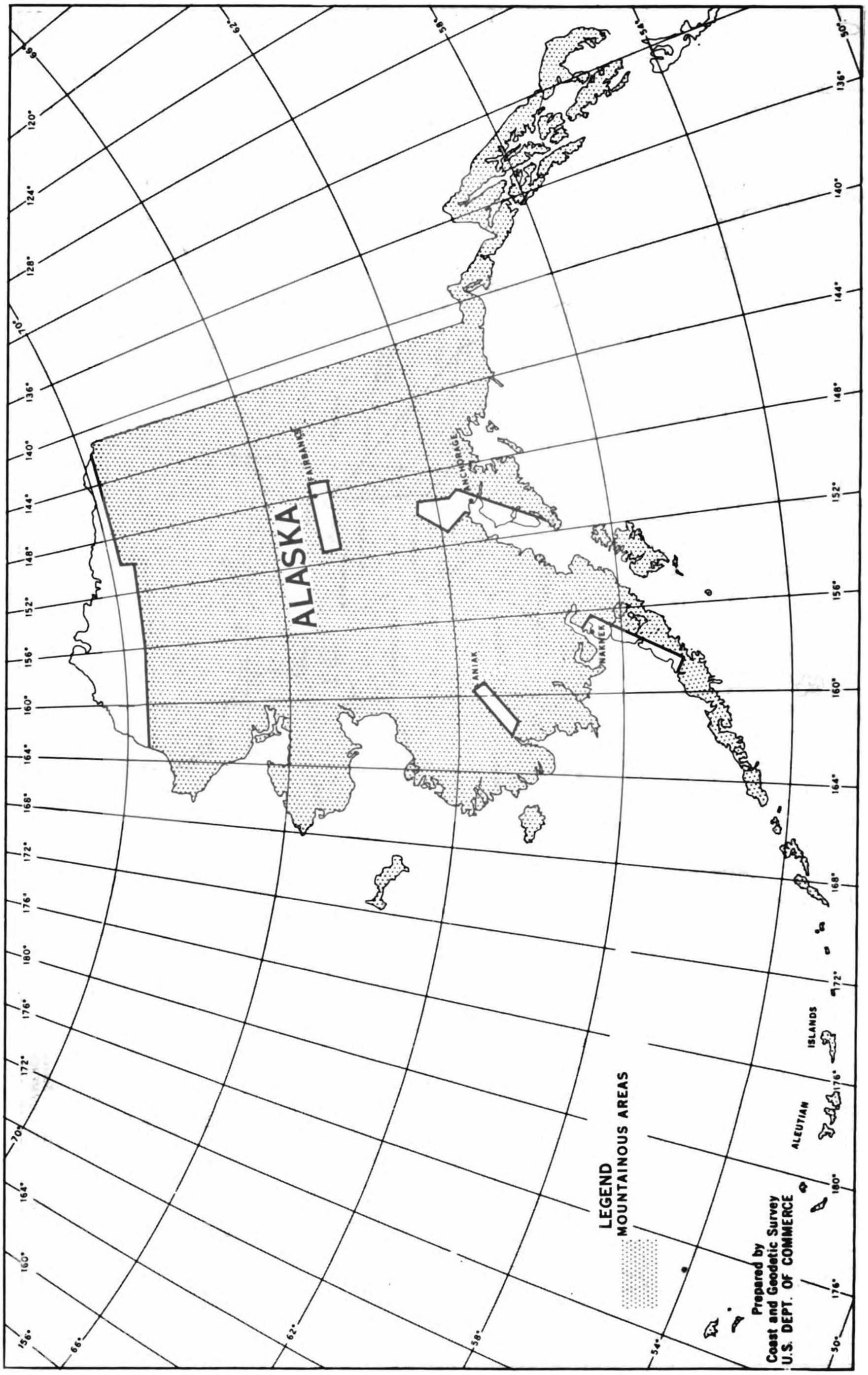
PANAMA CANAL ZONE DOMESTIC ADIZ - THE AIRSPACE ABOVE THE CANAL ZONE - INCLUDING THE TERRITORIAL WATERS WITHIN THE THREE MILE MARINE BOUNDARY AT EACH END OF THE CANAL - BEGINNING AT 2500 FEET MSL AND EXTENDING UPWARD.



DESIGNATED MOUNTAINOUS AREAS



DESIGNATED MOUNTAINOUS AREAS



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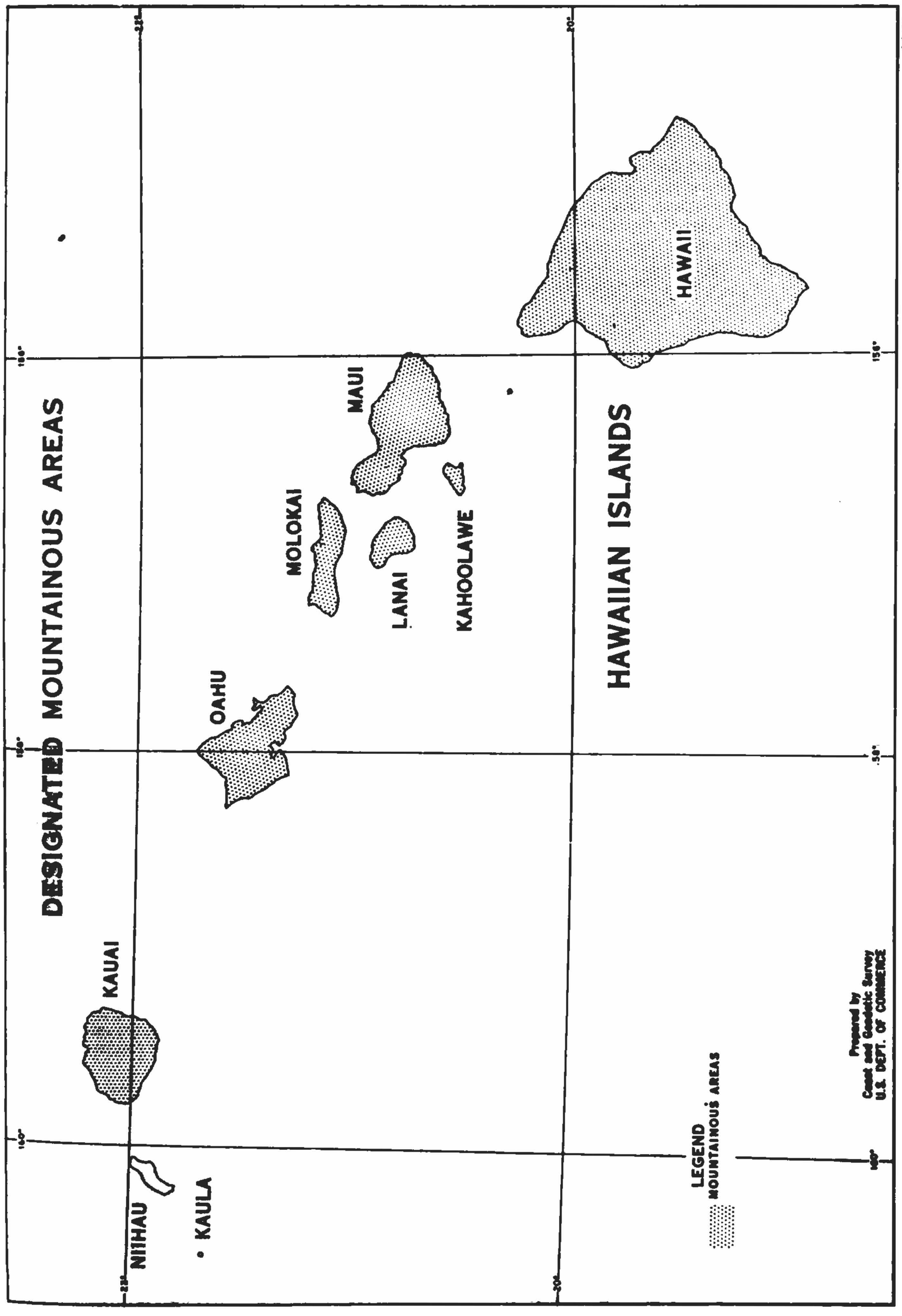

DESIGNATED MOUNTAINOUS AREAS

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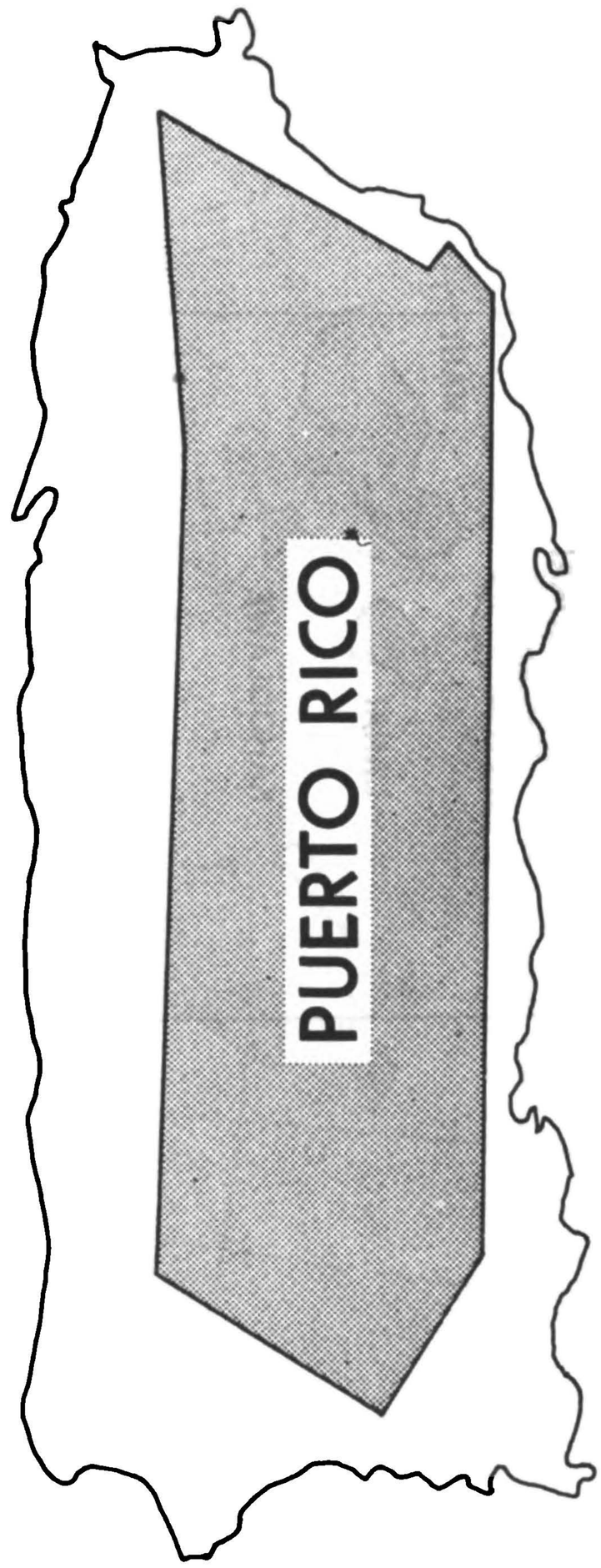


MOUNTAINOUS AREA, AS DESIGNATED BY THE ADMINISTRATOR

SCATER PROCEDURES
(Security Control of Air Traffic and Electromagnetic Radiations)

1. All pilots should guard a FAA control frequency at ll times. In event of emergency, SCATER directives ill be broadcast over these frequencies. VFR flights ay expect to be ordered to land at nearest facility. FR flights will proceed as directed by ARTCC.

2. Following the declaration of an Air Defense Emerency, SECURITY CONTROL RULES will become effece. These rules are included in the published SCATER lan. Pilots should contact the nearest Air Traffic Conol facility upon being advised of an Air Defense Emerncy or that SCATER has been implemented. They will en be advised as to the requirements for Security Conol, if any, for flight operations.

INTERCEPTION SIGNALS

There are occasions when interceptor pilots are required to transmit instructions to pilots of intercepted aircraft. When radio communications are not available, the accompanying visual signals are used. These signals are applicable within the airspace over the United States including Alaska and Hawaii, and the territories and possessions of the United States, including the territorial waters thereof.

Interceptor pilots required to transmit instructions by visual means shall approach the aircraft to be intercepted from astern, employing the Interception Pattern for Identification of Transport Aircraft. A distance of at least 500 feet shall be maintained between aircraft exchanging signals. These signals have also been adopted by Canada and are applicable within the airspace over Canada.

IRST SERIES

Signal by interceptor	Meaning	Response by intercepted Aircraft
ay cking wings from a position in ast of intercepted aircraft and ter acknowledgement a slow ul turn on to the desired urse.	'Follow me'	Day or Night Rocking wings and following.
ight day with the addition of a ser- s of flashing lights at irregular tervals by any means available. ote:—If the interceptor in- ds only to lead intercepted air- aft away from an area it signals front and to the left of the in- rcepted aircraft. If the inter- ptor intends to lead intercepted rcraft for a landing it signals in ont and to the right of the inter- pted aircraft.		
If the intercepted aircraft is able to maintain sufficient eed to follow the interceptor:		
) The interceptor shall fly in the direction the intercepted aircraft should fly, circle to the left, and fly again in the proper direction.	'Fly in this direction	Rocking wings and maintaining indicated direction.
) When the area for descent is reached the interceptor shall circle to the right. The intercepted aircraft should then let down in the descending turn at the minimum rate of descent.	'Descend in this area'	Rocking wings and commencing descent.

ECOND SERIES

Signal by interceptor	Meaning	Response by intercepted aircraft
ay or Night n abrupt break away upward f 90 degrees or more.	'You may proceed	Day or Night Rocking wings.

THIRD SERIES (To be used on arriving in vicinity of aerodrome).

Signal by interceptor	Meaning	Response by intercepted aircraft
Day Circling aerodrome and lowering landing gear. Night As day and showing steady lights if carried.	'Land at this aerodrome.	Day or Night Same as interceptor, and proceed to land.

FOURTH SERIES (To be used if intercepted aircraft finds aerodrome inadequate.)

Signal by intercepted aircraft	Meaning	Response by interceptor
Day Rocking wings while passing over landing runway at a height exceeding 1,000 feet above the level of the aerodrome. Night Flashing landing lights while passing over the landing runway at a height not exceeding 1,000 feet above the level of the aerodrome. (If unable to flash landing lights, flash any lights available.)	'Aerodrome that you have designated is inadequate'.	Day or Night If it is desired that other aircraft follow him to an alternative aerodrome, the interceptor signals the FIRST series. Should the interceptor decide to release intercepted aircraft he signals the SECOND series (meaning 'You may proceed')

DISTRESS SERIES

Signal by intercepted aircraft	Meaning	Response by interceptor
Day Porpoising. Night Switching on landing lights and holding steady beam.	'In distress'.	Day or Night Use appropriate interception signal, as shown above.

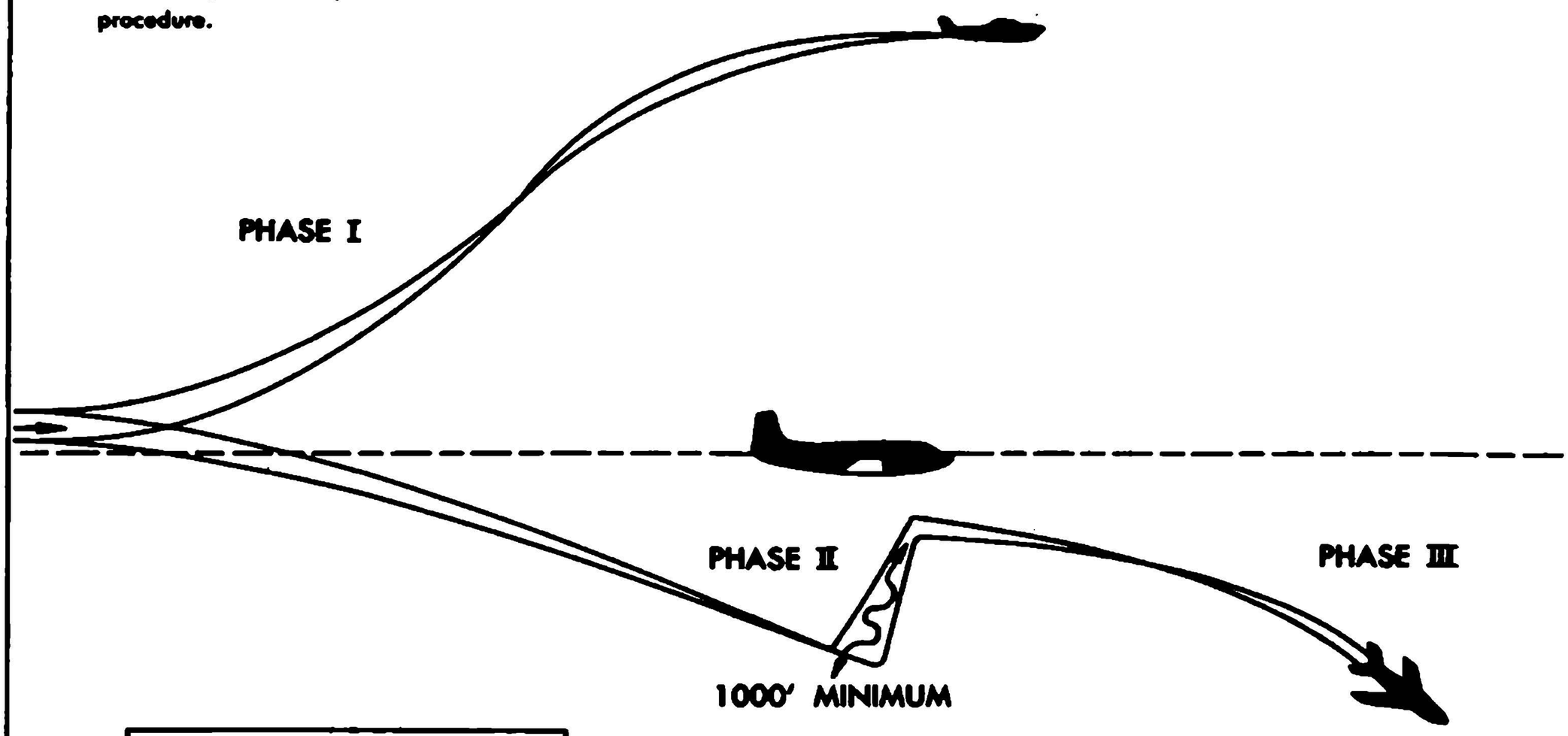
INTERCEPTION PATTERN FOR IDENTIFICATION OF TRANSPORT AIRCRAFT

PHASE I

Intercepting aircraft approach intercepted aircraft from astern. Element leader reduces throttle and extends dive brakes. Wingman continues to the opposite side of the intercepted aircraft from the leader and climbs to 4000 feet above target aircraft altitude for the purpose of maintaining surveillance, using economical power setting. Should weather ceiling not permit surveillance from this position, wingman will assume a position of either side of aircraft which will permit observation of both the aircraft and his element leader at a distance of 3000 feet from the intercepted aircraft, if visibility permits. During surveillance, wingman will maintain position by S-turns rather than reducing speed with dive brakes. The desired position of the element leader is 1000 feet abreast the aircraft at the aircraft's altitude. After speed and position are stabilized, element proceeds with Phase II of the procedure.

PHASE II

Wingman continues surveillance. Element leader begins gentle closure of aircraft at same level until no closer than absolutely necessary to obtain information needed. As he gives identification information to director, wingman copies information for mission report. Element leader uses every precaution to avoid startling intercepted aircrew or passengers, keeping constantly in mind that maneuvers considered normal to a fighter aircraft may be considered hazardous to passengers and crews of nonfighter aircraft. Upon completion of identification, fighter-interceptors withdraw from aircraft's vicinity as outlined in Phase III.



INTERCEPTION PATTERN FOR DAY-VISUAL IDENTIFICATION OF AIRCRAFT

PHASE III

Element leader breaks gently away from aircraft in shallow dive to pick up speed. Wingman stays well clear of intercepted aircraft and joins leader.

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

EMERGENCY PROCEDURES

GENERAL

1. A pilot in any emergency phase (uncertainty, alert, or distress) should do three things to obtain assistance:

a. *If equipped with IFF, switch to "Emergency" position.*

b. *Contact controlling agency and give nature of distress and pilot's intentions.* If unable to contact controlling agencies, attempt to contact any agency on assigned frequency or any of the following frequencies (transmit and receive):

Frequency	Emission	Effective Range in Nautical Miles	Guarded By
121.5 mc	Voice	Generally limited to radio line-of-sight	All military towers, most civil towers, VHF direction finding stns, radar facilities. Flight Service Stns. Ocean Station Vessels.
243.0 mc	Voice	Generally limited to radio-line-of-sight	All military towers, most civil towers, VHF direction finding stns, radar facilities. Flight Service Stns. Ocean Station Vessels.
2182 kc	Voice	Generally less than 300 miles for average aircraft installations	Some ships and boats, Coast Guard stations, most commercial coast stations.
500 kc	CW	Generally less than 100 miles for average aircraft installations	Most large ships most Coast Guard radio stations, most commercial coast stations.
8364 kc	CW	Up to several thousand miles, depending upon propagation conditions. Subject to "skip."	U.S.N. Direction Finding Stations, Ocean Station Vessels, most Coast Guard radio stations and some FAA International Flight Service Stations (IFSS)

Transmit as much of the following as possible:

(1) MAYDAY, MAYDAY, MAYDAY (if distress), or PAN, PAN, PAN (if uncertainty or alert). If CW transmision, use SOS (distress) or XXX (uncertainty or alert).

(2) Aircraft identification repeated three times.

(3) Type of aircraft.

(4) Position or estimated position (stating which).

(5) Heading (true or magnetic) (stating which).

(6) True airspeed or estimated true airspeed (stating which).

(7) Altitude.

(8) Fuel remaining in hours and minutes.

(9) Nature of distress.

(10) Pilot's intentions (bailout, ditch, crash landing, etc.).

(11) Assistance desired (fix, steer, bearing, escort, etc.).

(12) Two 10-second dashes with mike button (voice) or key (CW) followed by aircraft identification (once) and OVER (voice) or K (CW).

c. **Comply with instructions received.** Accept the "communications control" offered to you by the ground radio station, silence interfering radio stations, and do not shift frequency or shift to another ground station unless absolutely necessary.

2. Pilots of IFR flights experiencing two-way radio failure are expected to adhere to the procedures prescribed under "RADIO COMMUNICATIONS FAILURE" (F.A.R. PART 91.127). However, if a pilot should become lost, or if other factors prevent the pilot from being able to comply with prescribed procedures, such pilot, as well as pilot of VFR flights, may attempt to alert civil or military radar systems as follows:

a. **If receiver only is operating:** Fly triangular pattern to the RIGHT (see diagram). Hold each heading for two minutes (1 minute for jet use). Complete a minimum of two such patterns before resuming original course and then repeat pattern at 20-minute intervals. When flying triangular patterns to the right the emergency frequencies (121.5 or 243.0 mc) should be guarded. If pattern is observed by radar controllers, instructions will be given.

b. **If transmitter and receiver are both inoperative:** Fly a triangular pattern to the LEFT (see diagram), in the same manner as described above. If patterns are observed by radar controllers, an escort will be dispatched, if possible. If distressed aircraft is flying in IFR conditions or if at night, landing lights, navigational lights, etc., should be turned on to aid the interceptor. If intercepted, follow rescue aircraft.

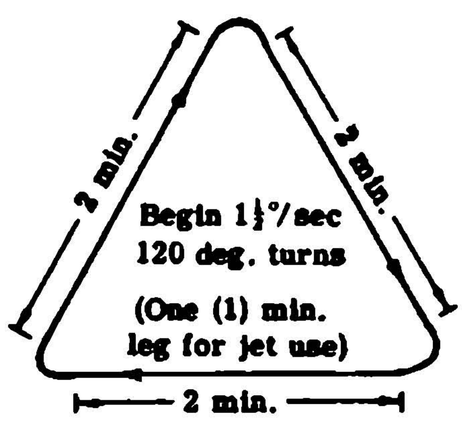


Figure 1 - With Receiver Operating Only

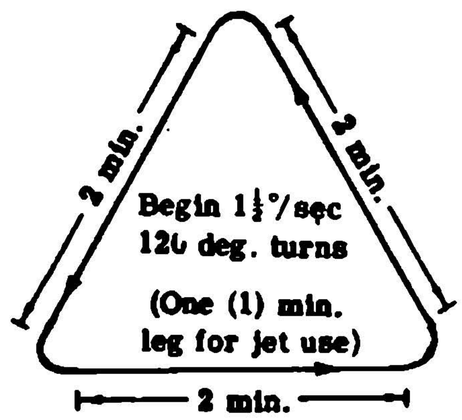


Figure 2 - With Transmitter and Receiver Inoperative

GENERAL (Con't)

c. The pilot should remember that he has *three* means of declaring an emergency:

(1) Emergency IFF;

(2) Sending emergency message; and

(3) Flying triangular pattern.

d. Ground stations have *three* electronic means of assisting:

(1) Receipt of emergency message;

(2) Radar detection of IFF signal and triangular pattern; and

(3) DF bearings.

e. **Pilots should remember the FOUR C's**

(1) **Confess** your predicament to any ground radio station. Do not wait too long. Give SAR a chance!

(2) **Communicate** with your ground link and pass as much of the distress message on first transmission as possible. We need information for best SAR action!

(3) **Climb** if possible for better radar and DF detection. If flying at low altitude, the chance for establishing radio contact is improved by climbing, also chances of alerting radar systems are sometimes improved by climbing or descending.

NOTE.—Climbing or descending under IFR conditions within controlled airspace is not permitted except in *emergency*. Any variation in altitude, track, etc., in connection with flying radar patterns will be unknown to Air Traffic Control. Air Traffic Control will operate on the assumption that the provision of FAR, Part 91.127 are being followed by the pilot.

(4) **Comply**—especially *Comply*—with advice and instructions received, if you really want help. Assist the ground "communications control" station to control communications on the distress frequency on which you are working (as that is the distress frequency for your case). Tell interfering stations to maintain silence until you call. Cooperate!

3. For bailout, set radio for continuous emission. For ditching or crash landing, radio should, if it is considered that there is no additional risk of fire and if circumstances permit, be set for continuous transmission.

4. When a pilot is in doubt of his position, or feels apprehensive for his safety, he should not hesitate to request assistance. Search and Rescue facilities, including Radar, Radio, and DF stations, are ready and willing to help. There is no penalty for using them. Delay has caused and cost lives. Take Action!

SEARCH AND RESCUE

1. GENERAL

a. Search and Rescue is a life-saving service provided through the combined efforts of the FAA, Air Force, Coast Guard, State Boards, Aeronautic Commissions or other similar state agencies who are assisted by other organizations such as the Civil Air Patrol, Sheriffs Air Patrol, State Police, etc. It provides search, survival aid, and rescue of personnel of missing or crashed aircraft.

b. Prior to departure on every flight, local or otherwise, someone at the departure point should be advised of your destination and the route of flight if other than direct. Search efforts are often wasted and rescue is often delayed because of pilots who thoughtlessly take off without telling anyone where they are going.

c. All you need to remember to obtain this valuab protection is:

(1) File a Flight Plan with an FAA Flight Servi Station in person or by telephone or radio.

(2) Close your flight plan.

(3) If you land at a location other than the i tended destination, report the landing to the near FAA Flight Service Station.

(4) If you land en route and are delayed more th 30 min. (15 min. for jets), report this information the nearest FSS.

(5) Remember that if you fail to report within o half hour after your ETA, a search will be started locate you.

d. If a crashed aircraft is observed:

(1) Determine if crash is marked with yellow cro if so, crash has already been reported and identified.

(2) Determine, if possible, type and number of a craft and whether there is evidence of survivors.

(3) Fix, as accurately as possible, exact location crash.

(4) Transmit information to nearest FAA or oth appropriate radio facility.

(5) Immediately after landing, make a complete r port to nearest FAA, Air Force, or Coast Guard install tion. Report may be made by long distance collect te phone.

e. To assure survival and rescue in the event of crash landing the following advice is given:

(1) For flight over uninhabited land areas, it wise to take suitable survival equipment depending type of climate and terrain.

(2) If forced landing occurs at sea, chances f survival are governed by degree of crew proficiency emergency procedures and by effectivenss of water su vival equipment.

(3) If it becomes necessary to ditch, distressed ai craft should make every effort to ditch near a surfa vessel. If time permits, the position of the neare vessel can be obtained from a Coast Guard Rescue C ordination Center through the FAA facility.

(4) The rapidity of rescue on land or water w depend on how accurately your position may be d termined. If flight plan has been followed and yo position is on course, rescue should be prompt.

(5) Unless you have good reason to believe that y will not be located by search aircraft, it is better remain near your aircraft and prepare means for s nalling whenever aircraft approach your position.

f. Search and Rescue facilities include:

(1) Rescue Coordination Centers;

(2) Search and Rescue aircraft;

(3) Rescue vessels;

(4) Pararescue and ground rescue teams;

(5) Emergency radio fixing.

2. CLOSE YOUR FLIGHT PLAN

a. The control tower does not automatically cl flight plans since many of the landing aircraft are operating on flight plans. It remains the responsibil of a pilot to close his own flight plan. This will prev a needless search.

3. NATIONAL SEARCH AND RESCUE PLAN

a. Under the National Search and Rescue Plan, t U.S. Coast Guard is responsible for coordination search and rescue for the Maritime Region, and

SEARCH AND RESCUE (Con't)

U.S. Air Force is responsible for coordination of search and rescue for the Inland Region. In order to carry out this responsibility the Air Force and the Coast Guard have established Rescue Coordination Centers to direct search and rescue activities within their regions. This service is available to all persons and property in distress, both civilian and military. Normally, for aircraft incidents, information will be passed to the Rescue Coordination Centers through the appropriate Air Route Traffic Control Center.

Coast Guard Rescue Coordination Centers

Boston, Mass.
LA 3-1121

New York, N.Y.
HA 2-5700

Portsmouth, Va.
393-6081

Miami, Fla.
FR 9-1871

New Orleans, La.
•527-6225

Cleveland, Ohio
861-0400

St. Louis, Mo.
MA 1-8145

Long Beach, Calif.
HE 7-2941, HE 6-6268

San Francisco, Calif.
YU 6-5500, YU 6-3873

Seattle, Wash.
MA 4-2902

Juneau, Alaska
6-2680, 6-2681 (Night)

Honolulu, Hawaii
5-0211, 5-8831

Kodiak, Alaska
Naval Station Kodiak
379, 758

San Juan, Puerto Rico
722-2174

Bermuda
1-2173

Coast Guard Rescue Coordination Centers are served by major radio stations which guard 500 kc (CW) and 2182 kc (voice). In addition, San Francisco and Honolulu guard 8364 kc and 247 Coast Guard units along the sea coasts of the United States and shores of the Great Lakes guard 2182 kc (voice). All of these facilities are available for reporting distress or potential distress. THE CALL "NCU" (CW) or "COAST GUARD" (VOICE) ALERTS ALL COAST GUARD RADIO STATIONS WITHIN RANGE.

Air Force Rescue Coordination Centers

Eastern Air Rescue Center

Robins AFB, Ga. ------ Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia.
926-5755

Area dial code is 912

Central Air Rescue Center

Richard-Gebaur AFB, Mo. — Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin, Wyoming.
DI 5-4400, ext. 7517, 7518 or 7519
ED 1-1200, Belton, Mo.

Western Air Rescue Center

Hamilton AFB, Calif. -- Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, Elmendorf Air Force Base, Alaska.
TU 3-4112,
TU 3-7711
ext. 291570
BR 5-0645, SK 2-0227

•REPORTING AIRCRAFT ACCIDENTS, INFLIGHT HAZARDS AND OVERDUE AIRCRAFT

(Civil Aeronautics Board, Safety Investigation Regulations, Part 320 (in part)).

1. NOTIFICATION

a. The operator of an aircraft shall immediately, and by the most expeditious means available, notify the Civil Aeronautics Board, Bureau of Safety Field Office nearest the accident or occurrence when:

(1) As a result of the operation of an aircraft, any person (occupant or nonoccupant) receives fatal or serious injury or any aircraft receives substantial damage;

(2) Aircraft collide in flight;

(3) The following inflight hazards are experienced:

(a) Fire;

(b) Rapid decompression requiring emergency action;

(c) Unwanted or asymmetrical thrust reversal;

(d) Flight control system malfunction or failure;

(e) Inability of any required flight crew member to perform his normal flight duties as a result of injury or illness.

(f) An aircraft is overdue and is believed to have been involved in an accident.

b. The following information is required if available:

(1) Location;

(2) Date;

(3) Time;

(4) Aircraft make, model, and registration number and nationality;

(5) Names of operator and crew;

(6) Number of persons involved;

(7) Injuries of each person;

(8) Weather conditions;

2. REPORTS

a. The operator shall file a report on CAB Form 453 or 454, available from the Civil Aeronautics Board Field Offices, the Civil Aeronautics Board, Washington, D.C., and the Federal Aviation Agency Flight Standards District Office:

(1) Within ten (10) days after an occurrence for which notification is required in 1 (a) and (b) above;

(2) When, after seven (7) days, an overdue aircraft is still missing;

(3) Upon request of an authorized representative of the Civil Aeronautics Board;

b. Each crew member, if physically able at the time the report is submitted, shall attach thereto a statement setting forth the facts, conditions and circumstances relating to the accident or occurrence as they appear to him to the best of his knowledge and belief. If the crew member is incapacitated, he shall submit the statement as soon as he is physically able.

3. WHERE TO FILE REPORTS

a. The operator of an aircraft shall file with the Field Office of the Civil Aeronautics Board nearest the acci-

SEARCH AND RESCUE (Con't)

dent or occurrence any report required by this section involving:

(1) Aircraft having a maximum take-off weight of more than 12,500 pounds or rotorcraft regardless of weight.

(2) Aircraft having a maximum take-off weight of 12,500 pounds or less operated by an air carrier certificated to engage in air transportation in the State of Alaska; and

(3) Aircraft, regardless of maximum take-off weight, where fatal injuries have occurred to any occupant of such aircraft.

b. The operator of an aircraft shall file with the FAA Flight Standards District Office nearest the accident or occurrence any report required by this section involving fixed-wing aircraft with a maximum take-off weight of 12,500 pounds or less except reports which are required to be filed with the Board pursuant to paragraph A above. FAA Flight Standards District Offices are listed on last page of Section II in Airman's Information Manual.

c. Civil Aeronautics Board field Safety Office addresses and telephone numbers are **Anchorage:** P.O. Box 2219, Anchorage, Alaska; BRoadway 2–7001. **Chicago:** Suite 206, 6525 North Avenue, Oak Park, Ill.; VIllage 8–9565. **Denver:** 1549 Emporia Street, Auroa, Colo.; EMpire 6–8249. **Fort Worth:** 100 North University Drive, University Plaza Building, Fort Worth 7, Tex.; EDison 6–2463. **Kansas City:** 912 East 63d Street, Kansas City, Mo. 64110; EMerson 3–2220 and 3–2221. **Los Angeles:** Los Angeles International Airport, 5820 Avion Drive, Room 228, Los Angeles 45, Calif.; SPring 6–0117. **Miami:** P.O. Box 48–0931, Miami International Airport, Miami 48, Fla.; TUxedo 5–2445. **New York:** Federal Building, Room 101, New York International Airport, Jamaica, Long Island, New York; 995–3333. **Oakland:** P.O. Box 2386, Oakland Airport Station, Oakland 14, Calif.; LOckhaven 8–1290. **Seattle:** Room 202, Administration Building, King County Airport, Seattle 8, Wash.; PArkway 3–9474.

RADIO COMMUNICATIONS FAILURE (F.A.R. PART 91.127)

1. It is virtually imposible to provide regulations and procedures applicable to all possible situations associated with radio communications failure in aircraft. During two-way radio communications failure when confronted with a situation not covered in the regulation, pilots are expected to exercise good judgment in whatever action they elect to take. Should the situation so dictate, they should not be reluctant to use the emergency action contained in FAR Part 91.127. Pilots who experience radio communications failure are urged to listen on any operational radio receiver for information broadcast by Air Traffic Control. Controllers have the capability of transmitting on most navigational facilities and do so where an aircraft communications failure is recognized.

2. In the event of two-way radio communications failure, pilots on an IFR flight plan shall comply with the provisions of FAR Part 91.127, Two-way Radio Communications Failure. The following procedures are provided as a detailed guide for pilots. It is expected that pilots will operate their aircraft in accordance with these procedures in the event of radio failure and ATC service will be provided on the basis that the pilot is operati in accordance with these procedures.

3. **In VFR Conditions**—If able to maintain flight in VF conditions, continue flight under VFR and land as so as practicable and notify ATC. It is not intended th the requirement to "land as soon as practicable" to construed to mean "as soon as possible." The pilot tains his perogative of exercising his best judgment a is not required to land at an unauthorized airport, at airport unsuitable for the type of aircraft flown, or land only minutes short of this intended destination. T primary objective of this provision is to preclude tended IFR operations in the air traffic control system VFR weather conditions. When operating "on top" a unable to descend VFR prior to the destination, the p cedures contained in paragraph 4. are applicable.

4. **In IFR Conditions**—When in IFR conditions, or wh unable to descend and land in VFR conditions, the f lowing procedures are applicable.

a. Route

(1) If cleared to the destination airport or a rad facility serving the destination airport, proceed via t route specified in the last air traffic control clearan received to the radio facility to be used for the approa at the destination airport.

(2) If cleared to a radio fix short of the rad facility serving the destination airport without holdi instructions, *do not hold* but proceed via the route spe fied in the last air traffic control clearance received, or no route beyond the clearance limit has been receive proceed via flight planned route, to the radio facility be used for the approach at the destination airport.

(3) If cleared to a radio fix short of the rad facility serving the destination airport with holding i structions and a time to "expect *further* clearance," *ho until the time specified* then proceed via routing in a cordance with (2) above to the radio facility to be us for the approach at the destination airport.

(4) If cleared to a radio fix short of the rad facility serving the destination airport with holding i structions and time to "expect *approach* clearance," *ho and depart the fix so as to arrive over the radio facili to be used for the approach at the destination airpo as nearly as possible to the expected approach clearan time received*, proceeding in accordance with (2) abo

(5) If cleared to a radio fix short of the rad facility serving the destination airport which is on route other than the route requested, ATC will specify proposed routing beyond such clearance limit by statin "*EXPECT FURTHER CLEARANCE VIA (propos routing).*" This proposed routing will specify either new route to the destination airport or to a point int cepting the flight planned route. In such cases, the pr posed routing should be followed in lieu of the flig planned route.

(6) If a departing flight is cleared via vector, lieu of a specified routing, to fix, radial or airway, t flight should proceed by the most direct course possib to the fix, radial or airway and then in accordan with two-way radio communications failure procedure

(7) If a flight is departing or en route and a ve tor has taken if off the route specified in the ATC cle ance, the flight should be returned to the route specifi

RADIO COMMUNICATION FAILURE (Con't)

n the ATC clearance by the most direct course possi-le and then proceed in accordance with two-way radio ommunications failure procedures.

b. Altitude

(1) If assigned an altitude/flight level in the *ighest route structure* **filed in the flight plan or sub-equently requested, climb in accordance with the ATC earance received and then maintain the assigned al-itude/flight level or the MEA, whichever is higher, o the radio facility to be used for the approach at the estination airport.**

(2) If assigned an altitude ***below the highest*** *oute structure* **requested, ATC will specify a time or ix at which further clearance can be expected to an ltitude/flight level within the highest route structure equested by stating, "*EXPECT FURTHER CLEAR-NCE AT (altitude/flight level) AT (time/fix).*" If adio communications *failure occurs prior to receiving clearance* into the requested route structure, the ex-ected altitude/flight level should be considered an as-igned altitude/flight level and a *climb* en route to the xpected altitude should be made *at the time or location pecified.***

(3) If assigned an altitude ***below the highest route*** *tructure* **filed or subsequently requested and ATC has ot issued an "EXPECT FURTHER CLEARANCE AT Altitude)," maintain the** ***assigned altitude/flight level r the MEA, whichever is higher, until 10 minutes after assing the first compulsory reporting point over which he failure prevented communications with Air Traffic Control, unless earlier climb is required by the minimum afe altitude.*** **Then climb to and maintain the lowest ardinal altitude/flight level at or above the MEA of he highest route structure requested. (Cardinal alti-udes are thousand-foot levels 15,000', 16,000' etc.) The MEA of the high altitude route structure is Flight evel 180.**

(4) If a lower route structure has been specified s the final segment(s) of the route, the pilot should ly a route over the underlying airway maintaining the ast assigned altitude/flight level.

(5) ***If clearance to descend to an altitude below he highest requested route structure has been*** **received,** ***he last assigned altitude or the MEA, whichever is igher, should be maintained*** **in lieu of climbing back nto the highest requested route structure.**

(6) If ***deviation from the altitude*** **assigned by Air Traffic Control is necessary in order to comply with a** *igher MEA,* **any subsequent descent required by a ower MEA shall not be made below the altitude last ssigned by Air Traffic Control.**

Example:

A flight is cruising at 8,000' (last assigned altitude) on an IFR flight plan when radio communications failure occurs. After passing the next fix, the minimum enroute altitude is 10,000' and climb is made to that altitude. On the last leg of the flight, the minimum enroute altitude is 3,500'. The flight descends back to 8,000' after passing the fix defining the termination of the 10,000' minimum enroute altitude segment since the last assigned altitude (8,000') is higher than the MEA (3,500').

c. Approach

(1) Maintian the enroute altitude/flight level to the radio facility to be used for the approach to the airport. Because of many variable involved, no attempt is made to specify the type approach to be used.

(a) If a *clearance for an approach* **at the destination airport** *has been received,* **comply with the clearance or other instructions and make a descent for landing.**

(b) If a *clearance for an approach* **at the destination airport** *has not been received,* **start the descent from the en route altitude or flight level at the expected approach clearance time last received or, if no expected approach clearance time was received start the descent at the estimated time of arrival as indicated by the flight plan and subsequently amended by the pilot with Air Traffic Control, or upon arrival over the radio facility, whichever is later. An approved instrument approach procedure shall be executed unless VFR conditions are encountered and it is posible to continue descent and approach in accordance with VFR.**

(c) If an aircraft is operating in accordance with an approach control clearance and has departed the outer fix on a radar vector, the flight should proceed by the most direct course to the radio facility to be used for the approach and thereafter execute an approved instrument approach procedure.

d. Holding

(1) If holding is necessary at the radio facility to be used for the approach at the destination airport:

(a) Holding and descent to the initial altitude for the execution of the instrument approach should be accomplished in a holding pattern on the side of the final approach course on which the procedure turn is prescribed.

(b) Where approved *military jet penetration* **procedures have been published for the airport,** ***holding and descent*** **to initial penetration altitude/flight level should be accomplished in the** ***holding pattern in accordance with the procedure depicted on the jet approach and landing chart for that airport.***

5. SPECIAL MILITARY PROCEDURES

a. Aircraft, on a flight in which a delay enroute is planned, shall commence descent at the destination, at the estimated time of arrival (ETA) derived from the estimated time en route (ETE) plus any delay for which an ATC clearance has been obtained.

Example #1:

Point-to-point flight plan from A to B to C to D (airport of destination). Estimated elapsed time enroute specified in flight plan is three hours (A to D). Remarks indicate proposed two-hour local flight at B and one-hour local flight at C. On departure, flight is cleared to D (or a short range clearance limit). If radio communications failure is experienced prior to reaching B, flight should proceed to destination in accordance with established radio communications failure procedures. If the flight has obtained an amended clearance authorizing a

RADIO COMMUNICATION FAILURE (Con't)

two hour delay at B and experiences radio communications failure prior to reaching B or after local flight is begun, local flight at B will be completed. Local flight at C will not be executed.

Example #2:

Round Robin flight plan from Point A to B to C and back to A. Estimated elapsed time enroute specified in flight plan is three hours (A to A). Remarks indicate one hour local flight at B and one hour local flight at A prior to landing. Action governing delay at B would be as indicated in example #1. If the flight is cleared for local flight at A and subsequently experiences radio communications failure, local flight will be completed before beginning letdown.

b. Aerial Refueling—Aircraft which have received authorization from ATC to conduct refueling operations involving more than one altitude/flight level and have not received clearance beyond the refueling track should exit the track at the lowest altitude/flight level specified in the clearance for the refueling portion of the flight and proceed in accordance with radio communications failure procedures.

c. Oil Burner—Aircraft which have been cleared for descent to the low altitude(s) of the route shall maintain the altitude(s) specified for the route. Aircraft which have not been cleared to descend to the Oil Burner route low altitude(s) shall maintain the last assigned altitude/flight level and proceed in accordance with radio communications failure procedures.

d. Turbojet En Route Penetration—Aircraft which have been cleared for an en route penetration will proceed to the radio facility to be used for the approach at the destination airport at the last assigned altitude or the Minimum Safe Altitude whichever is higher and from that altitude execute the published penetration in lieu of climbing to the initial penetration altitude.

FUEL JETTISONING

1. Should it become necessary to jettison fuel, the pilot should immediately advise Air Traffic Control. Upon receipt of advice that an aircraft will jettison fuel, Air Traffic Control will broadcast or cause to be broadcast immediately Air Traffic Control, Flight Service Station and airline company radio frequencies the following:

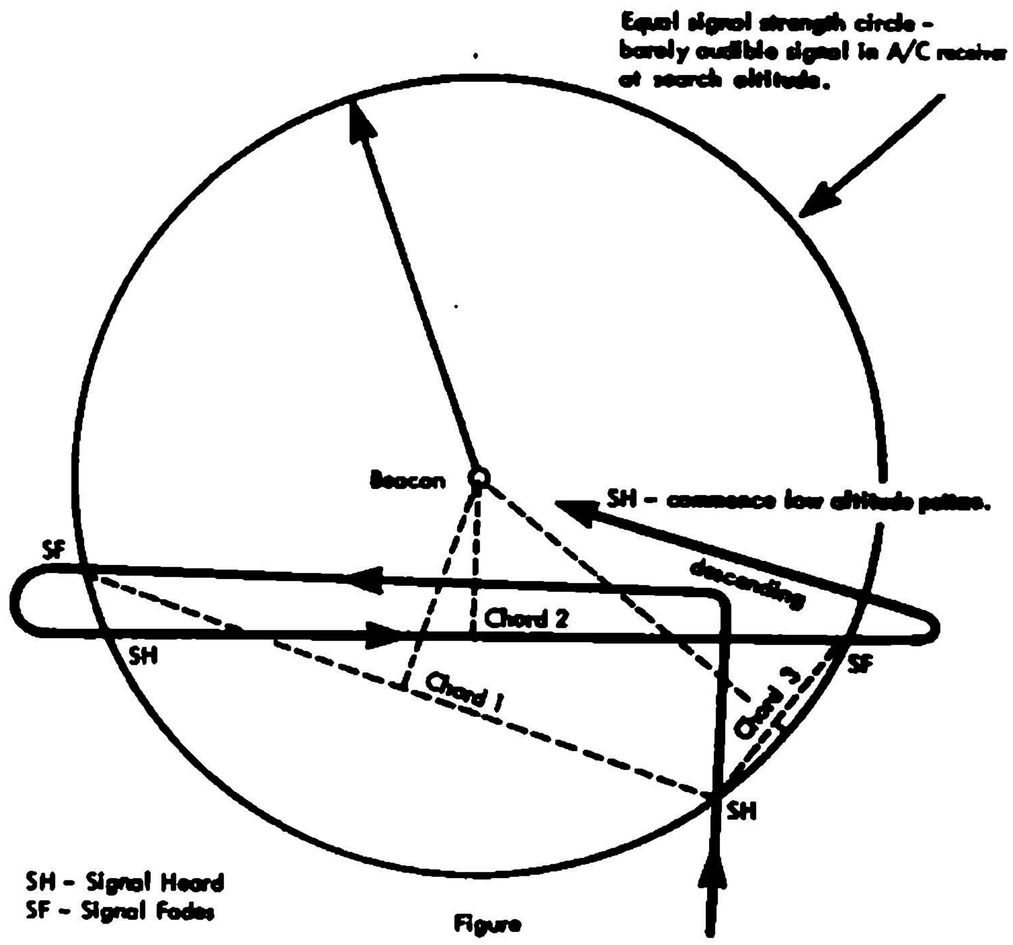
ADVISORY TO AIRCRAFT NOT ON ATC CLEARANCE—FUEL DUMPING IN PROGRESS—(aircraft type) (present position) course/s) (altitude)—AVOID FLIGHT WITHIN 5 NAUTICAL MILES OF FUEL DUMP AIRCRAFT.

2. Upon receipt of such a broadcast, pilots of aircraft affected, which are not on IFR flight plans or special VFR clearances, should clear the area specified in the advisory. Aircraft on IFR flight plans or special VFR clearances will be provided specific separation by Air Traffic Control. At the termination of the fuel jettisoning operation, pilots should advise Air Traffic Control. Upon receipt of such information, Air Traffic Control will issue, on appropriate frequencies, the following:

ADVISORY TO ALL CONCERNED—(aircraft type) FUEL DUMP TERMINATED.

LOCATING RESCUE BEACON

The initial search for survivors equipped with a VH or UHF beacon will be at high altitude to take advanta of the increased range afforded by altitude. The receiv should be tuned to the frequency of the beacon wi squelch off. The frequency should be guarded aurall and visually if the search aircraft has suitable homi equipment. While some progress is being made towa standardization on the type of signal emitted by the survival beacons, search and rescue personnel shou

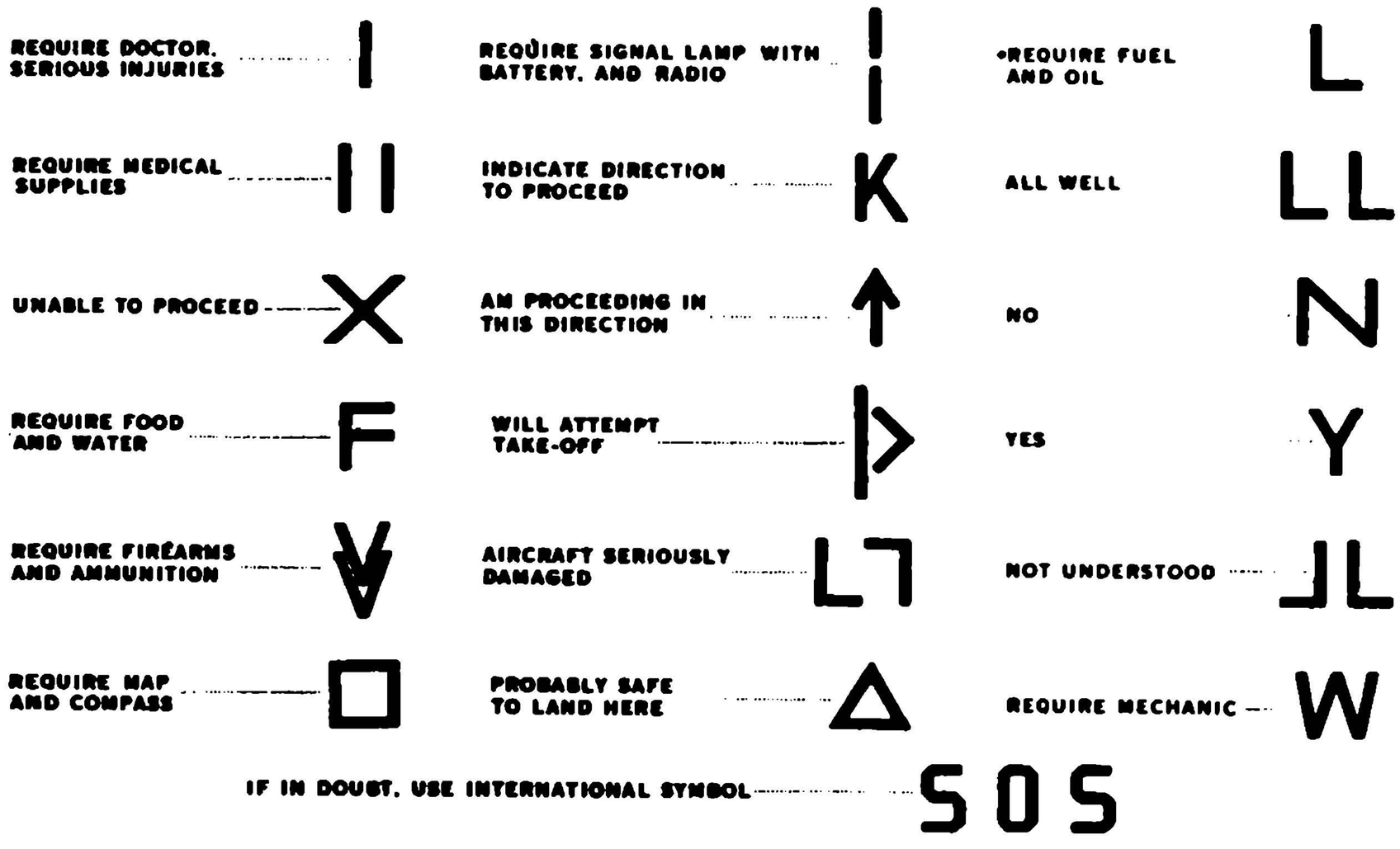


Figure

realize that complete standardization may not be achieve in the near future. If the type of signal emitted by th particular beacon is not known, searchers should be ale for any signal on the frequency, including a steady ton Types of signals used by these beacons are: steady ton (this may become a warbling tone if the beacon is floatin in the ocean); a definite warbling tone built into th beacon; an interrupted tone (a peculiar "beep-beep-beep" built into the beacon.

Once the beacon signal is detected, it will be a simpl matter for the search aircraft with homing equipmen However, if the search aircraft has only receiver cap bility, it can still locate the survivors by flying a boxin in pattern. Figure illustrates one such pattern. Bo ing-in patterns assume that the lines of equal signa strength will be circular, as shown in figure. Thu an aircraft flying at constant altitude can determine th limits of successive chords to the equal signal strengt circle corresponding to a barely audible signal on its ow receiver by plotting its position as the signal appears an and again when it fades. The perpendicular bisector o each chord is an approximate line of position containin the beacon. The intersection of any 2 lines of position wil indicate the approximate location of the beacon and th aircraft will be able to proceed to the approximate posi tion and descending to appropriate altitude, the aircraf can then make another low-level boxing-in pattern and/o carry out a close visual search for the survivors by an convenient high probability visual search pattern.

GROUND-AIR VISUAL CODE



INSTRUCTIONS

1. Lay out symbols by using strips of fabric or parachutes, pieces of wood, stones, or any available material.
2. Provide as much color contrast as possible between material used for symbols and background against which symbols are exposed.
3. Symbols should be at least 10 feet high or larger. Care should be taken to lay out symbols exactly as shown.
4. In addition to using symbols, every effort is to be made to attract attention by means of radio, flares, smoke, or other available means.
5. On snow covered ground, signals can be made by dragging, shoveling or tramping. Depressed areas forming symbols will appear black from the air.
6. Pilot should acknowledge message by rocking wings from side to side.

GROUND-AIR VISUAL CODE FOR USE BY GROUND SEARCH PARTIES		
NO.	MESSAGE	CODE SYMBOL
1	Operation completed.	LLL
2	We have found all personnel.	LL
3	We have found only some personnel.	++
4	We are not able to continue. Returning to base.	XX
5	Have divided into two groups. Each proceeding in direction indicated.	
6	Information received that aircraft is in this direction.	
7	Nothing found. Will continue search.	NN

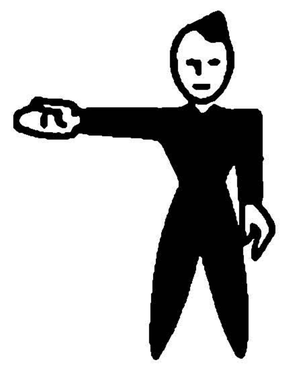
VISUAL EMERGENCY SIGNALS

NEED MEDICAL ASSISTANCE–URGENT

Used only when life is at stake

ALL OK–DO NOT WAIT

Wave one arm overhead

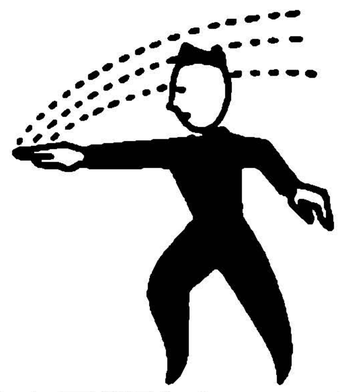


CAN PROCEED SHORTLY–WAIT IF PRACTICABLE

One arm horizontal

NEED MECHANICAL HELP OR PARTS–LONG DELAY

Both arms horizontal

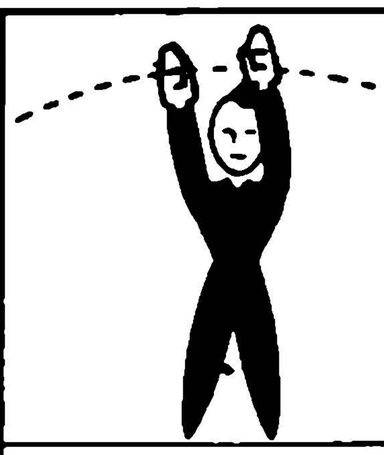


USE DROP MESSAGE

Make throwing motion

OUR RECEIVER IS OPERATING

Cup hands over ears

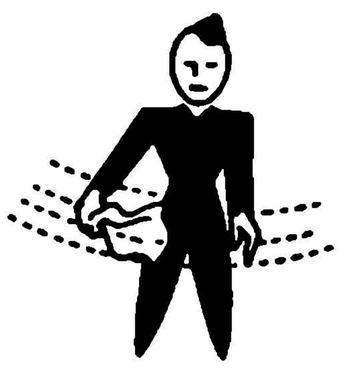


DO NOT ATTEMPT TO LAND HERE

Both arms waved across face

LAND HERE

Both arms forward horizontally, squatting and pointing in direction of landing—Repeat



NEGATIVE (NO)

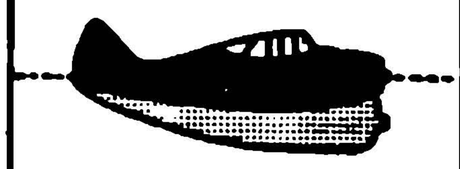
White cloth waved horizontally

AFFIRMATIVE (YES)

White cloth waved vertically

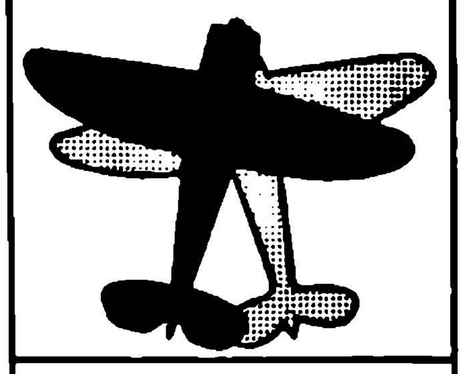
PICK US UP–PLANE ABANDONED

Both arms vertical



AFFIRMATIVE (YES)

Dip nose of plane several times



NEGATIVE (NO)

Fishtail plane

HOW TO USE THEM

If you are forced down and are able to attract the attention of the pilot of a rescue airplane, the body signals illustrated on this page can be used to transmit messages to him as he circles over your location. Stand in the open when you make the signals. Be sure that the background, as seen from the air, is not confusing. Go through the motions slowly and repeat each signal until you are positive that the pilot understands you.

GENERAL

FLIGHT STANDARDS SERVICE DISTRICT OFFICES

EASTERN REGION

General Aviation

Office	Phone No.
Albany, N.Y	UN 9-7411
Allentown, Pa	CO 4-2431
Allentown, Pa	CO 4-2888
Baltimore, Md	SO 1-2610
Cincinnati, Ohio	EA 1-7171
Cleveland, Ohio	WI 1-3030
Columbus, Ohio	BE 7-3741
Harrisburg, Pa	CE 4-0193
Lindenhurst, N.Y	TU 8-1440
Louisville, Ky	GL 1-2930
Norwood, Mass	762-2436
Philadelphia, Pa	OR 3-0250
Pittsburgh, Pa	HO 1-2726
Pittsburgh, Pa	HO 1-7800
Portland, Maine	SP 4-1452
Richmond, Va	RE 7-8256
Rochester, N.Y	BE 5-3438
Teterboro, N.J	AT 8-1745
Washington, D.C	NA 8-1076
Westfield, Mass	LO 8-8691

Air Carrier

Office	Phone No.
Boston, Mass	LO 7-1224
Idlewild, L.I., N.Y	995-3709
LaGuardia, L.I., N.Y	HA 6-9729
LaGuardia, L.I., N.Y	HA 6-9730
Newark, N.J	MA 4-2044
Pittsburgh, Pa	SP 1-2868
Utica, N.Y	RE 6-6981
Washington, D.C	NA 8-1076

SOUTHERN REGION

General Aviation

Office	Phone No.
Atlanta, Ga	DI 4-3033
Birmingham, Ala	592-6371
Charlotte, N.C	392-3214
Columbia, S.C	794-3789
Jackson, Miss	366-0305
Jacksonville, Fla	EL 4-7111
Memphis, Tenn	948-7701
Miami, Fla	888-8474
Nashville, Tenn	AL 5-7791
Raleigh, N.C	TE 2-6160
St. Petersburg, Fla	HE 6-9072

SOUTHERN REGION—Con't.

Air Carrier

Office	Phone No.
•Atlanta, Ga	526-7265
Miami, Fla	888-8474
Nashville, Tenn	244-2254
Winston-Salem, N.C	PA 5-0601
San Juan, P.R	791-0374

SOUTHWEST REGION

General Aviation

Office	Phone No.
Albuquerque, N. Mex	247-0156
Amarillo, Tex	DR 6-9481
Dallas, Tex	FL 2-8453
El Paso	778-6389
Ft. Worth, Tex	MA 4-1184
Houston, Tex	OL 4-6557
Little Rock, Ark	FR 2-3437
Lubbock, Tex	PO 2-0335
New Orleans, La	WH 4-6706
Oklahoma City, Okla	SU 9-5220
San Antonio, Tex	TA 6-2355
Shreveport, La	422-8379

Air Carrier

Office	Phone No.
Dallas, Tex	FL 7-8297
Ft. Worth, Tex	BU 3-1556
Houston, Tex	MI 5-6628
San Antonio, Tex	TA 4-6373

CENTRAL REGION

General Aviation

Office	Phone No.
Billings, Mont	245-7910
Des Moines, Iowa	285-1541
Fargo, N.D	232-8949
•Grand Rapids, Mich	949-5370
Helena, Mont	442-4230
Indianapolis, Ind	CH 4-2473
Kansas City, Kans	AT 1-3491
Lincoln, Nebr	434-5949
Milwaukee, Wis	SH 4-9202
Minneapolis, Minn	PA 9-7301
Rapid City, S.D	FI 2-3738
St. Louis, Mo	PE 1-0930
South Bend, Ind	CE 2-5843
Springfield, Ill	523-3657
West Chicago, Ill	584-4490
Wichita, Kans	WH 3-3244
Ypsilanti, Mich	483-1226

CENTRAL REGION—Con't.

Air Carrier

Office	Phone No.
Chicago, Ill	827-6623
Des Plains, Ill	827-6623
Indianapolis, Ind	CH 1-9296
Kansas City, Kans	HA 1-0135
St. Paul, Minn	PA 1-1653
St. Louis, Mo	PE 1-6800
Ypsilanti, Mich	482-7724

WESTERN REGION

General Aviation

Office	Phone No.
Boise, Idaho	342-2861
Cheyenne, Wyo	634-2652
Denver, Colo	GE 3-7104
Fresno, Calif	CH 1-6056
Long Beach, Calif	HA 1-8287
Oakland, Calif	NE 8-5711
Ontario, Calif	YU 4-2411
Phoenix, Ariz	275-6276
Portland, Oreg	AT 8-5846
Reno, Nev	FA 2-3790
Sacramento, Calif	GA 8-9614
Salt Lake City, Utah	524-5194
San Diego, Calif	CY 5-3112
Santa Monica, Calif	EX 1-6701
Seattle, Wash	PA 3-5600
Spokane, Wash	KE 5-1601
Van Nuys, Calif	ST 5-8624

Air Carrier

Office	Phone No.
Burbank, Calif	875-0410
Denver, Colo	DE 3-5475
Los Angeles, Calif	OR 0-7722
Los Angeles, Calif	SP 6-0102
San Francisco, Calif	697-6900
Seattle, Wash	PA 3-5604

ALASKAN REGION

General Aviation

Office	Phone No.
Anchorage, Alaska	BR 8-5401
Fairbanks, Alaska	6-5122
Juneau, Alaska	JU 6-3755

Air Carrier

Office	Phone No.
Anchorage, Alaska	BR 4-1965
Fairbanks, Alaska	GL 6-5122
Juneau, Alaska	JU 6-3755

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION III

FLIGHT DATA AND SPECIAL OPERATIONS

EFFECTIVE 0501Z 10 DECEMBER 1964

To 0501Z 7 JANUARY 1965

AIRMAN'S INFORMATION MANUAL

INTRODUCTION

This Airman's Information Manual (AIM) has been developed by the Federal Aviation Agency as a pilot's operational manual replacing the Airman's Guide, Directory of Airports and Seaplane Bases, and the Flight Information Manual within the conterminous United States. The existing Alaska Airman's Guide and Chart Supplement and the Pacific Airman's Guide and Chart Supplement will continue to be published every 28 days.

The new AIM presents, in a single document, all information necessary for the planning and conduct of a flight in the National Airspace System. The content and format reflect user identified requirements and provide a "one package" approach.

The manual is divided into six sections, each composed of a specific category or family of information, fashioned into a format consistent with the operational needs of aviation. In contradistinction to previous flight information publications issued by FAA, the design concept of the AIM has provided for consolidation of similar information, segregation of air traffic control procedural information and its sequencing according to operational use, and the elimination of administrative and non-essential data.

The AIM is designed to be carried in the cockpit and may be used collectively or independently by sections. The manual is published as loose-leaf pages, and is three-hole punched to fit a standard three-ring binder.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot prefixing the heading, paragraph, or line.

Each section of the AIM will be published at varying intervals during the year, depending on the stability or frequency or change of the information.

The various sections and the revision cycle of each are:

Section I	Basic Flight Manual	Semi-annually
Section II	ATC Operations and Procedures	Quarterly
Section III	Flight Data and Special Operations	Every 28 days
Section III–A	Notices to Airmen	Every 14 days
Section IV	Airport Directory	Semi-annually
Section IV–A	Airport/Facility Directory	Every 28 days

The above schedule provides a completely new manual every 6 months.

The revision cycle of Sections III and IV–A is every 28 days, the same as the IFR Enroute charts. Since the charts contains basically enroute information, the AIM serves as a supplementary publication, providing information for planning and terminal operations. Therefore, radio navigation aids are on the charts and unlike the Airman's Guide, are not tabulated in the AIM. Every effort has been made to minimize and eliminate duplication of information within publicatons and between publications and charts.

A Master Alphabetical Index of the AIM has been included in Section III because this section is issued every 28 days and thereby permits keeping the index current.

A brief description of the contents of each section in the AIM follows.

Section I—Basic Flight Manual

This section contains information of an instructional, educational, and training nature, assembled and presented in a systematic format, categorized by subject matter. The novice pilot, as well as the more experienced pilot will find here the basic fundamentals of knowledge for operating in the National Airspace System, information on adverse factors affecting safety of flight and health, and a list af available publications of general operational interest.

Section II—ATC Operations and Procedures

Section II is designed to serve as an official means of disseminating pertinent ATC information of interest to all pilots. The information governing flight operations, air traffic services, and procedures is presented in layman's language and avoids ambiguities which often result from individual interpretations of rules. Data is seqeunced in accordance with typical flight operations: Preflight, departure, enroute, arrival and landing procedures. In addition, supporting general procedures and information such as ADIZ, and SCATER procedures is included. Emergency procedures are combined and published at the end of the section.

Section III—Flight Data and Special Operations

Operational data most subject to change and which is not appropriate for inclusion within other sections of the AIM is carried in Section III. Because it contains critical flight data most subject to change, this section should be kept close at hand in the event of a divergence in enroute flight. Some of the most significant material contained in Section III is described below.

A Master Alphabetical Index giving a complete and comprehensive cross-referenced list of all aeronautical information in the AIM.

A glossary or explanation of aeronautical term or phrases used in the AIM, and a list of commonly used abbreviations.

Special Notices of pertinent current information of operational value for both preflight planning and enroute operations. These Special Notices are divided into three categories: General Notices—those of a general nature with universal application; Area Notices—those pertinent to a specific geographical aren; and Regulatory Notices—these are condensations of changes to or new rules, parts, Advisory Circulars, Special Procedures and other regulatory matters of operational interest.

A Visual Navigation Chart Bulletin, as a means of updating the Sectional Charts, providing a cumulative tabu'ation of the major changes in aeronautical information occurring since the last chart publication date.

Detailed description tabulations and charts of Special Operations such as Oil Burner Routes and military refueling tracks.

Section III—A—Notices to Airmen

This section serves as a supplement, issued every fourteen days, to the AIM and provides operationally required data pertinent to the continuous NOTAMs carried in the daily teletypewriter NOTAM Summary (NOSUM), revisions to Oil Burner routes, and those airman advisories deemed essential to the safe conduct of flight.

Sections IV and IV–A—Airport Directory

Within Sections IV and IV–A there are provided an Airport Directory, a tabulation of ARTCC communications, frequencies, and a tabulation of Flight Service Stations.

Section IV contains the Airport Directory which is a listing of all known airports, heliports, and seaplane bases available for transient civil use within the conterminous United States, and indicates those airport services and facilities available at each. The seaplane tabulation and the heliport tabulation follow the airport tabulation. Military airports and privately owned and operated airports closed to civil aviation are not listed.

Section IV–A contains an Airport/Facility Directory providing an integrated tabulation of major airports, heliports and seaplane bases which have terminal navaids and communications facilities available at the airport. This tabulation combines all facilities and services available at each airport (heliport or seaplane base) or terminal area into a single listing.

In both Sections IV and IV–A, airports are listed alphabetically by geographical location (city or town) within each state. Airports tabulated in IV–A are cross-referenced in Section IV.

In Section IV–A, the Airport/Facility Directory is followed by the tabulation of all ARTC Center VHF communications frequencies. This, in turn, is followed by the tabulation of FSS's, which shows their telephone numbers, the number of the associated Weather Bureau Office, and other pertinent data.

Errors, Omissions, or Suggested Changes

Errors, omissions, or suggested changes should be forwarded to the Federal Aviation Agency, Air Traffic Service, Attention AT-600, Washington, D.C. 20553. Airport managers, operators and owners are urged to review data for their airport and report any errors or omissions to FAA at the address given above.

Procurement

The Airman's Information Manual is available on annual subscription for $15.00, plus $4.00 additional for foreign mailing. Requests should be directed to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

INTRODUCTION

Section III—FLIGHT DATA AND SPECIAL OPERATIONS

Section III contains operational flight data most subject to continuous change that is not appropriate for inclusion within other sections of the Manual. Because it contains such critical flight data, this section should be kept close at hand in the event of a divergence in en route flight.

The information in Section III is presented in various tabulations or grouping arrangements appropriate to the specific items. Typical examples are: Preferred Routes, VOR Receiver Check Points, Parachute Jumping Areas, and Substitute Route Structures.

The Master Alphabetical Index of the entire Manual is provided in this Section. This complete and comprehensive index lists all items of information, cross referenced under all headings to which reference might reasonably be made, giving section and page number. Within the index, any reference involving emergency actions or procedures is printed in bold-face type.

As a means of updating the Sectional Charts produced by the Coast and Geodetic Survey, Department of Commerce, a Visual Navigation Chart Bulletin is included in Section III. This bulletin provides a cumulative tabulation of the major changes in aeronautical information that have occurred since the last publication date (normally every 6 months) of each sectional chart. Only those changes to controlled airspace and special use airspace, airports, and radio navigation facilities that present a hazardous condition or impose a restriction on the pilot are listed, thereby continually providing the VFR pilot with the essential data for keeping his sectional charts current until they are reissued.

At the end of Section III are grouped detailed tabulations and charts of special operations and areas such as Oil Burner Routes, and military low altitude refueling tracks. This arrangement provides a consolidated presentation of areas and special operations that are not designated through rule-making procedures.

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GLOSSARY OF AERONAUTICAL TERMS

AIR DEFENSE IDENTIFICATION ZONE (ADIZ)—The area of airspace over land or water within which the ready identification, the location, and the control of aircraft are required in the interest of national security. For operating details see ADIZ procedures.

AIRPORT ADVISORY AREA—The area within five statute miles of an uncontrolled airport on which is located a Flight Service Station so depicted on the appropriate Sectional Aeronautical Chart.

AIRPORT ADVISORY SERVICE—A service provided by a Flight Service Station to enhance the safety of terminal operations of airports where a station is operating but where there is no control tower.

AIRPORT SURFACE DETECTION EQUIPMENT (ASDE)—Radar equipment specifically designed to detect all principal features on the surface of an airport, including vehicular traffic, and to present the entire picture on a radar indicator console in the control tower. ASDE has a maximum range of four miles, though its 16 inch diameter scope usually displays an area of only one mile radius about the control tower.

AIRPORT SURVEILLANCE RADAR (ASR)—Radar providing position of aircraft by azimuth and range data without elevation data. It is designed for a range of 50 miles.

AIRPORT TRAFFIC AREA—The airspace within a circular limit defined by a five statute mile horizontal radius from the geographical center of an airport at which an operative airport traffic control tower is located and extending upwards from the surface to, but not including, 2,000 feet above the surface.

AIR ROUTE SURVEILLANCE RADAR (ARSR)—Long range radar which increases the capability of ATC for handling heavy en route traffic. An ARSR site is usually located at some distance from the ARTCC it serves.

AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)—A facility established to provide traffic control service to Instrument Flight Rules (IFR) flights operating within controlled airspace and principally during the en route phase of flight.

ALTITUDE RESERVATION (ALTRV)—Airspace utilization under prescribed conditions, normally employed for the mass movement of aircraft or other special user requirements which cannot otherwise be accomplished. ALTRV's are approved by the appropriate FAA facility.

APPROACH CONTROL SERVICE—Air traffic control service, provided by a terminal area traffic control facility, for arriving and or departing IFR flights and, on occasion, VFR flights.

APPROACH GATE—That point on the final approach course which is one mile from the approach fix on the side away from the airport or five miles from the approach end of the runway, whichever is farthest from the runway.

CARDINAL ALTITUDES OR FLIGHT LEVELS—"Odd" or "even" thousand-foot altitudes or flight levels. Examples: 5000, 6000, 7000, FL 250, FL 260, FL 270.

CAUTION AREA—An area in which there is a visible hazard to flight or navigation, such as aircraft maneuvers, parachute drops, etc. There is no restriction on flight. A caution area was established to warn the pilot that activities may be in progress which will require him to be constantly on the alert. Activities are of such nature that there should be ample time to take diversionary or evasive action if necessary.

CEILING—The height above the ground or water of the lowest layer of clouds or obscuration phenomena that is reported as "broken," "overcast," or "obscuration" and not classified as "thin" or "partial."

CENTRAL ALTITUDE RESERVATION FACILITY (CARF)—An Air Traffic Service facility established to conduct the volume of coordination, planning and approval of special user requirements under the altitude reservation concept.

CONSOLAN—A low frequency, long-distance navaid used principally for transoceanic navigation.

CONTERMINOUS U.S.—Forty-eight states and the District of Columbia.

CONTINENTAL CONTROL AREA—The area, which includes that airspace within the contermious United States at and above 14,500 feet MSL, excluding airspace less than 1,500 feet above terrain, and prohibited and restricted areas (except certain specified restricted areas).

CONTINENTAL U.S.—Forty-nine states. The original 48 states and Alaska.

CONTROL AREA—Controlled airspace extending upwards from a specified height above the surface of the earth. Unless otherwise provided in appropriate cases, control areas extend upward from 700 feet above the surface until designated from 1,200 feet above the surface or from at least 500 feet below the MEA, whichever is higher, to the base of the continental control area.

CONTROL ZONE—Controlled airspace extending upwards from the surface of the earth. Control zones may include one or more airports and are normally circular areas 5 statute miles in radius with extension where necessary to include instrument approach and departure paths.

CRUISE—The term "cruise" used instead of "maintain" in an ATC clearance indicates that descent from cruising altitude may be commenced at pilot's discretion without further clearance from ATC. "Cruise" is normally used only on relatively short flights in uncongested areas, and is authorization for the flight to proceed to, and make an approach at, destination.

DISCRETE FREQUENCY—A frequency assigned a particular function.

EXPECTED APPROACH CLEARANCE TIME (EAC)—The time at which it is expected that an arriving aircraft will be cleared to commence approach for a landing.

FINAL APPROACH—IFR—The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, commencing at the point of interception of said course and extending to the airport or the point where circling for landing or missed approach is executed.

FINAL APPROACH—VFR—A flight path of a landing aircraft in the direction of landing along the extended runway center line from the base leg to the runway.

FIX—A geographical position determined visually, by reference to one or more radio navigational aids, by celestial plotting, or by another navigational device.

FLIGHT ADVISORY SERVICE—Advice and information provided by a facility to assist pilots in the safe conduct of flight.

FLIP—Flight Information Publication.

FLIGHT LEVEL (FL)—A level of constant atmospheric pressure related to a reference datum 29.92" HG. For example: Flight Level 250 is equivalent to an altimeter indication of 25,000 feet, and Flight Level 265 to 26,500 feet.

FLIGHT SERVICE STATION (FSS)—A facility operated by the FAA to provide flight assistance service.

IFR CONDITIONS—Weather conditions below the minimum prescribed for flights under VFR.

INITIAL APPROACH—Initial approaches to a facility are normally made over specified routes to the primary navigation facility. When the approach fix is not the primary navigation facility, the transition routes are specified and shown on the particular AL chart. The minimum en route altitude for the route along which the pilot has been flying is normally used as the initial approach altitude. The high level initial approach altitude is usually termed "Initial Penetration Altitude" and is considered as the altitude at which the aircraft begins a penetration. This altitude is established for each particular procedure and is indicated on the associated AL chart.

INTERROGATOR—The ground-based surveillance radar beacon transmitter-receiver which scans in synchronism with a primary radar, transmitting discrete radio signa which repetitiously request all transponders, on the mo being used, to reply. The replies received are then mixe with the primary radar video to be displayed on th same plan position indicators.

JET ROUTES—A high altitude route system, at and abo 24,000 feet MSL, predicated on a network of designate high altitude VHF/UHF facilities. (For operating pr cedures applicable to this system see ENROUTE).

JOINT USE RESTRICTED AREA—An area wherein an aircra may operate if prior permission has been granted b either the restricted area "using agency" or the "co trolling agency." (1) The using agency organization, military command whose activity within a restricte area necessitated the area being so designated: exce that, in the case of those Restricted Area/Military Clim Corridors which do not have a designated controllin agency, the using agency is a military air traffic contr facility which may be contacted for transit through th climb corridor. The using agency notifies the controllin agency whenever permission may be granted by th controlling agency for transit of, or flight within a re stricted area. (2) The controlling agency is a designate FAA facility which may authorize transit of a restricte area.

MAINTAIN—The altitude/flight level instructions in a ATC clearance normally require that a pilot "maintain the altitude/flight level at which the flight will opera when in controlled airspace. Altitude/flight lev changes while en route should be requested prior to th time the change is desired.

MAXIMUM AUTHORIZED ALTITUDE (MAA)—An MAA is th highest altitude, within the Intermediate Airway Syste at which adequate reception of navigational aid signa is assured.

MINIMUM CROSSING ALTITUDES (MCA)—The lowest altitud at certain radio fixes at which an aircraft must cro when proceeding in the direction of a higher minimu en route IFR altitude.

MINIMUM EN ROUTE IFR ALTITUDE (MEA)—The altitude effect between radio fixes which assures acceptable nav gational signal coverage and meets obstruction clearanc requirements between those fixes.

MINIMUM OBSTRUCTION CLEARANCE ALTITUDE (MOCA)—Th specified altitude in effect between radio fixes on VO airways, off-airway routes on route segments, whic meets obstruction clearance requirements for the entir route segment and which assures acceptable navigation signal coverage only within 22 nautical miles of a VOI

MINIMUM RECEPTION ALTITUDE (MRA)—The lowest altitud required to receive adequate signals to determine specif VOR/VORTAC/TACAN fixes.

MODE—The number or letter referring to the specifi pulse spacing of the signal transmitted by an interrog tor.

RADAR BEACON (SSCONDARY RADAR)—A radar system in which the object to be detected is fitted with cooperative equipment in the form of a radio receiver/transmitter (transponder). Radio pulses transmitted from the searching transmitter/receiver (interrogator) site are received in the cooperative equipment and used to trigger a distinctive transmission from the transponder. This latter transmission, rather than a reflected signal, is then received back at the transmitter/receiver site.

RADAR ADVISORY SERVICE—The provision of advice or information based on radar observation.

RADIAL—A radial is a magnetic bearing extending from a VOR, VORTAC, or TACAN.

RESTRICTED AREA—Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions.

PRIMARY RADAR—A radar system in which a minute portion of a radio pulse transmitted from a site is reflected off an object and then received back at that site.

PROHIBITED AREA—Designated airspace within which the flight of aircraft is prohibited.

RESTRICTED AREA—Airspace designated within which the flight of aircraft, while not wholly prohibited, is subject to restriction.

TARGET—The indication displayed on a radar scope resulting from a primary radar return or a radar beacon reply.

TRANSITION AREA—An area extending upward from 1,200 feet or higher above the surface when designated to complement control zones; from 700 feet above the surface when designated in conjunction with an airport with no control zone but for which an instrument approach procedure has been prescribed; or from 1,200 feet or higher above the surface when designated in conjunction with airway route structures or segments. Unless otherwise limited, transition areas terminate at the base of the overlying control area or Continental Control Area.

TRANSPONDER—The airborne radar beacon receiver-transmitter which automatically receives radio signals from all interrogators on the ground, and selectively replies with a specific reply pulse or pulse group only to those "interrogations" being received on the mode to which it is set to respond.

VECTOR—A heading issued to the pilot for the purpose of providing navigational guidance by means of radar.

VISIBILITY, PREVAILING—The horizontal distance at which targets of known distance are visible over at least half of the horizon. It is normally determined by an observer on or close to the ground viewing buildings or other similar objects during the day and ordinary city lights at night. Under low visibility conditions the observations are usually made at the control tower. Visibility is REPORTED IN MILES AND FRACTIONS OF MILES in the Aviation Weather Report. If a single value does not adequately describe the visibility, additional information is reported in the "Remarks" section of the report.

VISIBILITY, RUNWAY—The horizontal distance at which a stationary observer near the end of the runway can see an ordinary light (about 25 candlepower) at night or a dark object against the horizon sky in the daytime. In practice the human observer is used very little for this observation. Instead runway visibility is normally determined by a transmissometer (a photoelectric device calibrated in terms of a human observer). It is REPORTED IN MILES AND FRACTIONS OF MILES in the "Remarks" section of the Aviation Weather Report. A meter in the control tower gives the FAA traffic controller a continuous indication of the runway visibility at transmissometer locations. Runway visibility, where available, is used in place of prevailing visibility for the determination of minimums on a transmissometer runway. This program is gradually being replaced by Runway Visual Range at transmissometer locations.

VISIBILITY, RUNWAY VISUAL RANGE (RVR)—An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end; it is based on the sighting of either high intensity runway lights or on the visual contrast of other targets—whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal, AND NOT SLANT, visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is REPORTED IN HUNDREDS OF FEET. At the present time, RVR observations are automatically furnished to FAA tower controllers at approximately 25 locations from readout equipment connected to the remote transmissometer installation. RVR provides an additional operating minimum at fields equipped with specified navigational aids. For example, at the present time the RVR minimum at Newark is 2000 ft. (in combination with a minimum descent altitude of 218' MSL) for both takeoffs and landings regardless of the reported ceiling and visibility.

WARNING AREA—An airspace warning area or, as more commonly known, a warning area, is the same as a restricted area (hazard to flight or navigation) but is located outside the continental United States. Boundaries are agreed upon jointly by Government and industry. Penetration of a warning area, as of a restricted area, during periods of activity may be extremely hazardous. Warning areas are established to permit military maneuvers and firing in certain offshore areas as a necessary feature of combat training. To do this the military services must obtain the necessary cooperation of other users of airspace.

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

acft..... aircraft
adjt..... adjacent
admin.... administration
AGL..... above ground level
Airgi..... Airguide
alt..... altitude
amdt..... amendment
ANRA.... air navigation radio aids
ant..... antenna
apch..... approach
apchg..... approaching
aprxly.... approximately
arpt..... airport
arr..... arrival/arrive
ARTCC... Air Route Traffic Control Center
ASDE..... airport surface detection equipment
ATC..... air traffic control
auto..... automatic
aux..... auxiliary
avbl..... available
awy..... airway

BC..... back course
bcn..... beacon
bcst..... broadcast
bldg..... building
bndry..... boundary
brg..... bearing
btn..... between

clsd..... closed
clrnc..... clearance
cntr..... center
Co..... county
comm.... communication
comsnd... commissioned
comsng... commissioning
config..... configuration
constr.... construction
constrd... constructed
cont..... continuous/continuously
crs..... course
CS/T..... combined station/tower
ctc..... contact
ctl..... control
ctld..... controlled

dalgt..... daylight
demsnd... decommissioned
demol.... demolition
DF..... direction finder
discntd... discontinued
DME..... UHF standard (TACAN compatible) distance measuring equipment
dptg..... departing
dptr..... departure

efctv..... effective
elev..... elevation
emgcy.... emergency
eng..... engine
eqpmt.... equipment
excp..... except
extsn..... extension
extsv..... extensive

facil..... facility
flashg.... flashing
fld..... field
flt..... flight
flwg..... following
FM..... fan marker
fone..... telephone
freq..... frequency
FSS..... Flight Service Station

GCA..... groundcontrolled approach
gnd..... ground
GWT..... gross weight

hi-..... high-
hr..... hour
hvy..... heavy
hwy..... highway

ident..... identification
IFR..... Instrument Flihgt Rules
IFSS..... International Flight Service Station
ILS..... instrument landing system
imdtly.... immediately
inbnd..... inbound
indef..... indefinitely
info..... information
inop..... inoperative
inst..... instrument
int..... intersection
intl..... international
intsv..... intensive

J-bar..... jet runway barrier

kc..... kilocycles

lat..... latitude
lcl..... local
lclzr..... localizer
lctd..... located
lctn..... location
LFR..... Low/Medium frequency radio range
lgt..... light
lgtd..... lighted
lgtg..... lighting
LMM..... compass locator at middle marker ILS
lnd..... land
lndg..... landing
LOM..... compass locator at outer marker ILS
long..... longitude

M..... magnetic (after a bearing)
MAA..... maximum authorized altitude
mag..... magnetic
maj..... major
max..... maximum
mc..... megacycles
MCA..... minimum crossing altitude
MEA..... minimum enroute IFR altitude
meml..... memorial
mi..... mile
min..... minimum or minute
MM..... middle marker ILS
MOCA.... minimum obstruction clearance altitude
mod..... modernization/modification
MRA..... minimum reception altitude
mrkd..... marked
mrkg..... marking
MSL..... mean sea level
mun..... municipal

natl..... national
navaid.... navigational aid
ngt.....night

nmi..... nautical mile/s
No..... number

obstn..... obstruction
oct..... octane
OM..... outer marker ILS
operg..... operating
opern..... operation
outbnd.... outbound

patn..... pattern
permly.... permanently
p-line..... pole line
pwr..... power

quad..... quadrant

rad..... radial
RAE..... Royal Aircraft Establishment visual glide slope indicator
RAPCON..radar approach control
RATCC... radar air traffic control center
rbn..... radio beacon
rcv..... receive
rcvg..... receiving
rcvr..... receiver
rdo..... radio
reconstr... reconstruction
REIL..... runway end identification lights
relctd..... relocated
rgt..... right
rng..... range
rnwy..... runway
ruf..... rough
RVR..... runway visual range
RVV..... runway visibility values

sked..... schedule
smi..... statute mile/s
SR..... sunrise
SS..... sunset
stn..... station
sys..... system

T..... true (after a bearing)
TACAN... UHF navigational facility—omnidirectional course and distance information

tet..... tetrahedron
tfc..... traffic
tkof..... take-off
tmprly.... temporarily
tmpry.... temporary
trans..... transcribed
trml..... terminal
trng..... training
tsmt..... transmit
tsmtg..... transmitting
tsmtr..... transmitter
TV..... television
twr..... tower
txwy..... taxiway

UFN..... until further notice
unavbl.... unavailable
uncltd.... uncontrolled
unlgtd.... unlighted
unmrkd... unmarked

VASI..... visual approach slope indicat
vcnty..... vicinity
VFR..... visual flight rul
VOR..... VHF navigation facility—omr directional, course only
VOR-DME. collocated VOR navigational facility and UHF standar navigational facility and UHF standar distance mea uring equipment
VORTAC.. collocated VOR and TACAN navigational facilities
VOT..... a VOR Receiver Testing Facility
vsby..... visibility

wea..... weather
WIP..... work in progres
wt..... weight

THE NOTAM CODE

INTRODUCTION

The NOTAM Code provides for coding NOTAM information to reduce telecommunications transmission time and reduce translation difficulties in the International Service.

A NOTAM Code group contains 5 letters. The first letter is always the letter Q to indicate a code abbreviation for use in the composition of NOTAMs. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

NOTAM code significations shall be amplified or completed where necessary by adding appropriate words, contractions, frequencies, location identifiers, place names, or figures. Approved abbreviations shall be used in preference to plain language whenever possible. The information necessary to complete a NOTAM code group, as indicated by a blank space, shall be given except when (1) the blank spaces are enclosed within parentheses or brackets to indicate their completion is optional; e.g., LHX QIEIK 15 MIN. Meaning: the LaJunta Colorado airport beacon is available on request at 15 minutes' notice; or (2) an alternative meaning shown in parentheses is selected and the blank space in this alternative meaning is complete; e.g., QAPOK 116.9. Meaning: the radio range on 116.9 Mc. resumed normal operation.

Expressions or words in parentheses which do not include blank spaces have the following significances:

(1) When following a blank space, signifies the explanation of information to be used in filling the preceding blank.

(2) When following a word or expression, signifies an alternative to the word or expression.

CODE GROUP FORMATION

5-letter NOTAM code groups are formed in the following manner:

(1) First Letter.—The letter Q.

(2) Second and Third Letters.—The appropriate combination of 2 letters, selected from the "2nd and 3rd letters" section of the code, identify the facility, service or danger to aircraft in flight being reported. The *second* letter has been restricted to A, E, I, O, or U. These letters also serve to classify the aid, facility, or service described: i.e., the letters A and E signify radio aids. The letter I signifies lighting facilities. The letters O and U signify airports, search and rescue, and dangers to aircraft in flight.

(3) Fourth and Fifth Letters.—The appropriate cominbation of 2 letters, selected from the "4th and 5th Letters" section, denote the operating status of the facility, service, or danger to aircraft being reported. The *fourth* letter has been restricted to A, E, I, O, or U.

DECODE

SECOND AND THIRD LETTERS

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	RADIO AIDS		
AA	. . . [*specify TWR, APP, ACC or FIC*] air traffic services receiver . . . kc/s. (*or* . . . Mc/s.).	AY	200 Mc/s. Distance Measuring Equipment.
AB	Inner marker, Instrument Landing System.	AZ	Station location marker VHF.
AC	. . . [*specify TWR, APP, ACC or FIC*] air traffic services transmitter . . . kc/s. (*or* . . . Mc/s.).	EA	En-route Surveillance Radar.
AD	Middle marker, Instrument Landing System.	EB	Broadcasting station (public).
AE	Outer marker, Instrument Landing System.	EC	CONSOL or CONSOLAN station.
AF	Fan-type marker.	ED	DECCA or DECTRA.
AG	Glide path, Instrument Landing System.	EE	Ground Controlled Approach System (GCA).
AH	Non-directional Beacon (NDB).	EF	Terminal Area Surveillance Radar.
AI	Instrument Landing System (ILS).	EG	Gee.
AJ	Radio range (other than VOR) and associated voice communications.	EH	Elevation element of the Precision Approach Radar (PAR).
AK	Radio receiving facilities.	EI	Monitoring device associated with . . . (*specify*) radio aid.
AL	Localizer, Instrument Landing System.	EJ	All air-ground facilities (except . . .).
AM	Locator, inner, Instrument Landing System.	EK	Precision Approach Radar (PAR).
AN	TACAN.	EL	LORAN.
AO	Locator, outers, Instrument Landing System.	EM	Azimuth element of the Precision Approach Radar (PAR).
AP	VOR (VHF Omnidirectional Radio Range) and associated voice communications.	EN	DME (1000 Mc/s. Distance Measuring Equipment).
AQ	VOR (VHF Omnidirectional Radio Range).	EO	Beam Approach Beacon System (BABS).
AR	Radio range (other than VOR).	EP	Radar responder beacon.
AS	Radio range leg.	EQ	Surveillance Radar Element (SRE) of GCA.
AT	Attentional signal.	ER	Radio transmitting facilities.
AU	Meteorological communications . . . kc/s. (*or* . . . Mc/s.).	ES	All radio-navigation facilities (except . . .).
AV	Voice communications . . . kc/s. (*or* . . . Mc/s.).	ET	Teletypewriter transmitting facility (ies).
AW	Unassigned.	EU	Radio direction-finding station . . . (*frequency or type*).
AX	Non-directional Beacon (NDB) and voice facility.	EV	VORTAC (the combination of VOR and TACAN).
		EW	Ground interrogator, SSR system.
		EX	Unassigned.
		EY	Ground movement radar.
		EZ	Unassigned.
	LIGHTING FACILITIES		
IA	Boundary lights.	ID	Channel lights.
IB	Aerodrome beacon.	IE	Light beacon.
IC	Unassigned.	IF	Floodlights.

DECODE

SECOND AND THIRD LETTERS (Contd.)

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	LIGHTING FACILITIES (Contd.)		
IG	Angle-of-approach lights.	IP	Approach light system [type . . . {*specify LSA (low intensity) or LSB (high intensity*}] (for runway number . . .).
IH	Taxiway lights.		
II	Hazard beacon.		
IJ	Threshold lights (for runway number . . .).	IQ	Runway alignment beacon.
		IR	Runway lights [type . . . {*specify LSA (low intensity) or LSB (high intensity)*}] (for runway number . . .).
IK	Flares.		
IL	All landing area lighting facilities.		
IM	Identification beacon.	IS	Strip lights [for strip . . . (*number or magnetic direction*)].
IN	Unassigned.	IT–IY	Unassigned.
IO	Obstruction lights.	IZ	Airway course lights.

AERODROMES — SEARCH AND RESCUE — DANGERS TO AIRCRAFT IN FLIGHT

OA	Land aerodrome.	UB	Mooring buoys.
OB	Beaching facilities.	UC	Unassigned.
OC	Water aerodrome.	UD	Prohibited, restricted or danger area designated as . . . (*name or reference identification*).
OD	Meteorological forecast service.		
OE	Meteorological observation service.		
OF	Meteorological watch service.	UE	Aircraft.
OG	Runway arresting gear.	UF	Fixed balloons.
OH	Helicopter landing area.	UG	Bombing or aerial depth charge dropping.
OI–OL	Unassigned.		
OM	All runways [except number(s) . . .].	UH	Air exercises (*or* flying displays).
ON	Stopway for runway number.	UI	Gun or missile firing.
OO	Taxiway(s).	UJ	Glider flying.
OP	Rescue vessel.	UK	Demolition of explosives.
OQ	Ocean Station Vessel.	UL	Landing direction indicator.
OR	Refueling [. . . type fuel(s) *or* . . . octane].	UM	Mooring and docking facilities.
		UN	Parachute jumping exercises.
OS	Search and rescue aircraft [*specify VLR, LRG, MRG, SRG or HEL*].	UO–UP	Unassigned.
		UQ	Apron.
OT	Crash and fire fighting facilities.	UR	Runway(s) and number(s).
OU	Unassigned	US	Strip . . . (*number or magnetic direction*).
OV	. . . [*specify TWR, APP, ACC or FIC*] air traffic service.	UT	Grass landing area.
		UU	Unassigned.
OW–OY	Unassigned.	UV	Fog dispersal equipment.
		UW–UY	Unassigned.
OZ	Warship.		
UA	Alighting area.	UZ	Runway threshold (number . . .).

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DECODE

FOURTH AND FIFTH LETTERS

4th & 5th Letters	SIGNIFICATION	4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES		
AA	Unassigned.	EC	Characteristics *or* identification *or* radio call sign changed to . . .
AB	Usable for length of . . . and width of . . .	ED	Operating frequency(ies) will be changed to . . . kc/s. (*or* . . . Mc/s.) effective . . . (*date/time*).
AC	Covered by snow to a depth of . . . NOTE.—*This snow is not compacted.*	EE–EG	Unassigned.
AD	Cleared of soft snow, full length and width.	EH	Not heard.
AE	Totally free of snow and ice.	EI–EL	Unassigned.
AF	Covered by [. . . (*type*)] ice to a depth of . . .	EM	Military operations only.
AG–AH	Unassigned.	EN	Not available due to . . . (*specify reason*) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
AI	Operating without tone modulation.	EO	Unassigned.
AJ	Operating without coding.	EP	Available on prior permission (of . . .) only.
AK	Covered by compacted snow to a depth of . . .	EQ–ER	Unassigned.
AL	Operating on reduced power.	ES	Out of service from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] due to the following condition(s) . . .
AM	Snow clearance in progress [estimated time of completion is . . . (*date/time*)].	ET	Test operation only. NOT for operational use.
AN	Grass cutting in progress [estimated time of completion is . . . (*date/time*)].	EU–EV	Unassigned.
AO	Marked by . . .	EW	Completely withdrawn.
AP	Work is in progress [estimated time of completion is . . . (*date/time*)].	EX	Unassigned.
AQ	Work completed.	EY	Is outside the limits of its assigned ocean station.
AR	Snow clearance completed.	EZ	Is within the limits of its assigned ocean station.
AS	Grass cutting completed.	IA–IB	Unassigned.
AT	Sanding is in progress [estimated time of completion is . . . (*date/time*)].	IC	Report of apparent unreliability or track displacement hereby is cancelled.
AU	Appears unreliable.	ID	Available on request to . . .
AV	Covered by ice patches.	IE	Unassigned.
AW	Height of snowbanks is . . . (*figures and units*).	IF	Flight checked and found reliable.
AX	Braking action is . . . (A = *good*, B = *medium*, C = *poor*).*	IG–IJ	Unassigned.
AY	Are to avoid area, radius of danger being . . . (about the point . . .).	IK	Available on request (to . . .) immediately [*or* at . . . (*time period*) notice].
AZ	Will take place from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] (on the days of . . . between the hours of . . . and . . .) at . . . (*location*) (within the sector of . . . and a radius of . . .) at . . . height above . . . (*datum*).	IL	Hours of service are now . . .
		IM	Unassigned.
		IN	Operative (*or* re-operative), activated (*or* re-activated) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
EA	Unassigned.	IO	Operating normally.
EB	Location change to . . . effective . . . (*date/time*).		

DECODE

FOURTH AND FIFTH LETTERS (Contd.)

4th & 5th Letters	SIGNIFICATION
HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES (Contd.)	
IP	Track(s) reported to be displaced (. . . degrees) (. . . direction) of published bearing(s), other tracks probably have shifted.
IQ	To be used as radio beacon only.
IR	Magnetic track(s) towards station is are now . . . [will be . . . at . . . (*date/time*)].
IS	Operative (or *re*-operative) subject to conditions/limitations already published.
IT	Aircraft restricted to runways and taxiways.
IU	Unserviceable for aircraft heavier than . . . tons.
IV	Unsafe from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IW–IZ	Unassigned.
OA–OF	Unassigned.
OG	Operative but ground checked only, awaiting flight check.
OH–OJ	Unassigned.
OK	Resumed normal operation.
OL	Track(s) ground checked, approved for instrument flying.
OM	Shut down for maintenance from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)]—disregard all signals.
ON–OQ	Unassigned.
OR	Previously promulgated shutdown has been cancelled.
OS	Unassigned.
OT	New facility in operation.
OU	Operating without interruption for voice transmissions from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
OV–OW	Unassigned.
OX	Exercising at . . . (*date/time, location and height above the specified datum*).
OY–OZ	Unassigned.
UA	Closed to all operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UB–UC	Unassigned.
UD	Closed to all night operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UE	Unassigned.
UF	Closed for an unknown duration due to flood.
UG	Closed for an unknown duration [*or* until . . . (*date/time*)] due to ice or snow.
UH	Closed for an unknown duration [*or* until . . . (*date/time*)] due to thaw.
UI	Closed from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] for maintenance.
UJ–UL	Unassigned.
UM	Operating in an unmonitored status.
UN–US	Unassigned.
UT	Operative but caution advised due to following condition(s) . . .
UU	Suitable for . . . (*specify*) equipped aircraft only.
UV	Covered by slush to a depth of . . .
UW	Covered by water to a depth of . . .
UX–UZ	Unassigned.

DECODE

FOURTH AND FIFTH LETTERS

HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES

4th & 5th Letters	SIGNIFICATION
AA	Unassigned.
AB	Usable for length of . . . and width of . . .
AC	Covered by snow to a depth of . . . NOTE.—*This snow is not compacted.*
AD	Cleared of soft snow, full length and width.
AE	Totally free of snow and ice.
AF	Covered by [. . . (*type*)] ice to a depth of . . .
AG–AH	Unassigned.
AI	Operating without tone modulation.
AJ	Operating without coding.
AK	Covered by compacted snow to a depth of . . .
AL	Operating on reduced power.
AM	Snow clearance in progress [estimated time of completion is . . . (*date/time*)].
AN	Grass cutting in progress [estimated time of completion is . . . (*date/time*)].
AO	Marked by . . .
AP	Work is in progress [estimated time of completion is . . . (*date/time*)].
AQ	Work completed.
AR	Snow clearance completed.
AS	Grass cutting completed.
AT	Sanding is in progress [estimated time of completion is . . . (*date/time*)].
AU	Appears unreliable.
AV	Covered by ice patches.
AW	Height of snowbanks is . . . (*figures and units*).
AX	Braking action is . . . (A = *good*, B = *medium*, C = *poor*).*
AY	Are to avoid area, radius of danger being . . . (about the point . . .).
AZ	Will take place from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] (on the days of . . . between the hours of . . . and . . .) at . . . (*location*) (within the sector of . . . and a radius of . . .) at . . . height above . . . (*datum*).
EA	Unassigned.
EB	Location change to . . . effective . . . (*date/time*).
EC	Characteristics *or* identification *or* radio call sign changed to . . .
ED	Operating frequency(ies) will be changed to . . . kc/s. (*or* . . . Mc/s.) effective . . . (*date/time*).
EE–EG	Unassigned.
EH	Not heard.
EI–EL	Unassigned.
EM	Military operations only.
EN	Not available due to . . . (*specify reason*) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
EO	Unassigned.
EP	Available on prior permission (of . . .) only.
EQ–ER	Unassigned.
ES	Out of service from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] due to the following condition(s) . . .
ET	Test operation only. NOT for operational use.
EU–EV	Unassigned.
EW	Completely withdrawn.
EX	Unassigned.
EY	Is outside the limits of its assigned ocean station.
EZ	Is within the limits of its assigned ocean station.
IA–IB	Unassigned.
IC	Report of apparent unreliability or track displacement hereby is cancelled.
ID	Available on request to . . .
IE	Unassigned.
IF	Flight checked and found reliable.
IG–IJ	Unassigned.
IK	Available on request (to . . .) immediately [*or* at . . . (*time period*) notice].
IL	Hours of service are now . . .
IM	Unassigned.
IN	Operative (*or* re-operative), activated (*or* re-activated) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IO	Operating normally.

DECODE

FOURTH AND FIFTH LETTERS (Contd.)

4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES (Contd.)
IP	Track(s) reported to be displaced (. . . degrees) (. . . direction) of published bearing(s), other tracks probably have shifted.
IQ	To be used as radio beacon only.
IR	Magnetic track(s) towards station is are now . . . [will be . . . at . . . (*date/time*)].
IS	Operative (or *re*-operative) subject to conditions/limitations already published.
IT	Aircraft restricted to runways and taxiways.
IU	Unserviceable for aircraft heavier than . . . tons.
IV	Unsafe from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IW–IZ	Unassigned.
OA–OF	Unassigned.
OG	Operative but ground checked only, awaiting flight check.
OH–OJ	Unassigned.
OK	Resumed normal operation.
OL	Track(s) ground checked, approved for instrument flying.
OM	Shut down for maintenance from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)]—disregard all signals.
ON–OQ	Unassigned.
OR	Previously promulgated shutdown has been cancelled.
OS	Unassigned.
OT	New facility in operation.
OU	Operating without interruption for voice transmissions from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
OV–OW	Unassigned.
OX	Exercising at . . . (*date/time, location and height above the specified datum*).
OY–OZ	Unassigned.
UA	Closed to all operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UB–UC	Unassigned.
UD	Closed to all night operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UE	Unassigned.
UF	Closed for an unknown duration due to flood.
UG	Closed for an unknown duration [*or* until . . . (*date/time*)] due to ice or snow.
UH	Closed for an unknown duration [*or* until . . . (*date/time*)] due to thaw.
UI	Closed from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] for maintenance.
UJ–UL	Unassigned.
UM	Operating in an unmonitored status.
UN–US	Unassigned.
UT	Operative but caution advised due to following condition(s) . . .
UU	Suitable for . . . (*specify*) equipped aircraft only.
UV	Covered by slush to a depth of . . .
UW	Covered by water to a depth of . . .
UX–UZ	Unassigned.

ATTENTION FAA PERSONNEL **ATTENTION FAA PERSONNE**

AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE–FY 1965

Copy for inclusion in the Airman's Information Manual must be received no later tha 0001 EST on the dates reflected in the schedules listed below, in order to assure its publ cation in the issue specified. Although the dates listed are the actual cut-off times, ever effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Section

Effective Date	Section I	Section II	Section III	Section III–A	Section IV	Section IV–A
December 24				December 14		
January 7			December 21	December 21		December 21
January 21				January 11		
February 4			January 18	January 18		January 18
February 18				February 8		
March 4		February 8	February 16	February 16		February 16
March 18				March 8		
April 1			March 15	March 15		March 15
April 15				April 5		
April 29			April 12	April 12		April 12
May 13				May 3		
May 27	April 26	May 3	May 10	May 10	April 26	May 10
June 10				June 1		
June 24			June 7	June 7		June 7

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- ☐ Section I, Basic Flight Manual
- ☐ Section II, ATC Operations and Procedures
- ☐ Section III, Flight Data and Special Operations
- ☐ Section III-A, Notices to Airmen
- ☐ Section IV, Airport Directory
- ☐ Section IV-A, Airport/Facility Directory

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PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless therwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

t Rucker Cairns AAF: 3 NM radius; weekends 1200–SS. Up to 14,500' MSL.

odland Mun Arpt: 1 mi E. 1200 LST to sunset. Sundays. Up to 12,000'.

ARIZONA

mana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000' MSL and 24,000' MSL.

oenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000' MSL; 3 mi ESE. Up to 7000' MSL.

ttdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000' MSL.

son, Ryon Fld: Up to 12,000'.

ARKANSAS

ansville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000' MSL.

rdonelle: 0.5 mi S, up to 12,000', weekends.

yetteville: 1 mi NNW Razorback Arpt. Mon thru Sat 2200GMT–sunset. Suns and holidays 1400 GMT– sunset.

nsboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

w Bluff, Grider Fld: 4 mi ENE. Weekends. Up to 15,000'. Check local NOTAMS for ngt jumping.

ellville Arpt: 4 mi SW. Weekends. Check NOTAMS for holiday and ngt. Up to 12,000'.

CALIFORNIA

tioch Arpt: Skydiving activities conducted daily adj to N side of fld.

vin: 1½ mi SW. 0800–SS Sat and Suns. Up to 15,000' MSL.

vnal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000'.

ck Point: Sky diving weekends up to 12,500'.

ck Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500' MSL.

listoga Arpt: Weekends.

mp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500'. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

ear Lake: Into Clear Lake at 39°05'N, 122°51'W. Mon thru Sat. Up to 4400' MSL.

ncore, Skylark Fld: Up to 13,700' MSL. Moderate weekdays, hvy weekends and holidays.

Fort Ord (Fritzsche AAF): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800'–15,000', opening at absolute alts of 2000'–2500'. Center of drop zone lctd at 36°38'N, 121°46'W in Restricted Area R-2511. C'tc Fritzsche Twr for advisory info.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500'.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000'.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000' MSL.

Lake Berryessa: Lat 38°31', 122°12'. Mon thru Sat. Up to 2000' MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld, Santee, Calif., two mi out of ctl area. Daily, greatest activity weekends. Up to 15,000'.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends and holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy btn Linden and Sacramento VORs. Up to 9,500'.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000' MSL.

Milpatas, King Skylanes Arpt: 3 mi E; Weekends. From 12,500'.

Ojai, Henderson Arpt: Weekends from 14,000' MSL 3 mi SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500' MSL. Weekends and holidays.

Piru: Tues-Fri. 2 mi E. Up to 14,500'.

San Diego—County Arpt (Gillespie Fld): Up to 20,000' MSL, chute opening alt aprxly 2700–3000' MSL in venty of arpt.

Santa Maria Arpt: Weekends and holidays. Up to 15,000' MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Taft Arpt: About 6 mi E. Daily, up to 20,000'.

COLORADO

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Suns and holidays. Up to 18,500' MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 and 20,000'.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 15,000' MSL.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500' AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 13,500' AGL.

Longmont Mun Arpt: Weekends and holidays up to 15,000'.

CONNECTICUT

Burlington, Johhnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Clewiston, Airglades Arpt: Up to 12,000′.
Deland Mun Arpt: Up to 7,000′ daily and weekends.
Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays. Up to 12,000′.
Howey Arpt: Weekends. Up to 10,000′.
Kissimmee Arpt: Daily and weekends. Up to 12,000′.
Marianna Mun Arpt: 5 mi radius; weekends during daylight hrs and intermittently daily Mon thru Fri and at ngt. Up to 12,500′.
Palatka, Kay Larkin Arpt: Weekends.
Santa Rosa Island: Daily. Up to 12,500′.
Venice Arpt: 6 mi N, every Sun. Up to 10,500′.
Williston Mun Arpt: Weekends.
Zephyrhills Arpt: Sundays. Up to 12,500′.

GEORGIA

Cleveland, White Co Arpt: Weekends. Up to 12,500′.
Stockbridge, Belich Fld: Weekends. Up to 15,500′.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.
Alton, Civic Memi Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.
Breese Arpt: ½ mi N. Up to 7,000′.
Chicago, Hammond Arpt: Weekends. Up to 12,500′.
Danville, Vermilion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.
Grayslake, Campbell Arpt: Weekends. 0800–1 hr after sunset. Wed 0800–2 hrs after sunset.
Hebron Arpt: Daily.
Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

INDIANA

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.
Rising Sun Arpt: Sundays. Within 5 mi radius. Up to 14,500′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.
Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

KANSAS

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.
Maize Arpt: Weekends and intermittently at other times. Up to 15,000′.
Salina Mun Arpt: Evenings and weekends. From 12,500′.

KENTUCKY

Henderson City Co. Arpt: 149° radial EVV VOR 8.1 nı Up to 10,000′ MSL.
Hopkinsville, Christian Co. Arpt: 4 mi NNE. Tues evenir and Weekends. Up to 12,500′.
Madisonville, Athey Arpt: Suns and holidays 0700–SS. to 12,500′.
Thornhill: 133° radial CVG VOR 15 nmi. Weekends. to 12,000′ MSL.

LOUISIANA

De Ridder, Beauregard Parish Arpt: Sky diving from 12,0
Hammond Arpt: Intermittently. Up to 10,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.
Sanford: Unscheduled jumps from 2700′ to 12,500′.
Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland, Mexico Farms Arpt: Up to 3000′. Most activ weekends.
Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up 12,500′ MSL. Most activity weekends.
Elkton, Lovett Arpt: Weekends. Up to 3000′.
Mitchellville, Freeway Arpt: 4 mi E. Weekends and holida Up to 12,000′.
Nottingham: 2 mi out on VOR radial 031. Weekends a Weds to 10:00 P.M. up to 20,000′.

MASSACHUSETTS

Agawam: Evenings, weekends and holidays.
Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up 13,500′ MSL, lat 42°28′, long 71°42′.
Mansfield Mun Arpt: 2–3 NM W (vcnty of old Attleb Arpt). Up to 7,000′.
Mansfield Mun Arpt: Unscheduled. Mostly weekends a holidays. Up to 12,000′.
Maynard Ordnance Depot: Airdrops of personnel and b eqpmt from 500′ to 2500′ Thurs, between 1500Z a 2000Z, within 1 mi radius of 42°25′, 71°28′45″.
Montague, Turners Falls Arpt: Weekends and holidays. to 13,000′.
Orange Mun Arpt: 2 mi radius. Day and night. M activity weekends and holidays; moderate weeken Up to 14,500′.
Taunton Mun Arpt: Weekends. Up to 7200′.

MICHIGAN

E. Tawas, Iosco Arpt: Up to 13,500′.
Gregory, Richmond Fld: Weekends.
Houghton Co. Memorial Arpt: NOTAMS will be issu when activated.
Marshall, Brooks Fld: Weekends. Up to 13,000′.
Monroe: 5 mi S. Weekends. Up to 15,500′.
Muskegon Northside Airport: Up to 15,000′.
Plainwell, Otsego-Plainwell Mun Arpt: Sundays.
St. Johns, Dickinson Arpt: Weekends and holidays. Fr 12,500′.
Saginaw Arpt: Weekends. Up to 13,000′.
Wixom Arpt: 1 mi SW. 0800 to SS Sats and Suns, a holidays. Up to 18,000′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Bethel: 2 mi E. Weekends. Up to 12,000'. Summer months: Wed afternoons.

MISSISSIPPI

Lucedale, Farmco Arpt: Weekends. Up to 12,000'.

MISSOURI

Houston Memi Arpt: Weekends. Up to 12,000' MSL.

St. Louis, Lohmaster Arpt: Weekends and holidays. Up to 11,000'.

MONTANA

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000'.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000' MSL—Miller Creek Area lat 46°47' to 46°49' long 114°01' to 114°05'. U.S. Forest Service Practice Areas . . . altitudes to 1500' AGL small areas vcnty of Lavelle Creek lat 47°00' long 114°03'; Mill Creek lat 47°02' long 114°12'; Sherman Creek lat 46°54' long 114°12'; O'Brien Creek lat 46°52', long 114°08'; Hayes Creek lat 46°49' long 114°06'; Ninemile Creek lat 47°05' long 114°23'; Fournier Creek lat 47°01' long 114°11'; Miller Creek lat 46°43' long 113°54'; Wild Horse Ridge lat 46°54' long 114°19'.

NEVADA

Carson City Arpt: Weekends. Up to 12,500' MSL.

Las Vegas, Thunderbird Fld: 3.5 mi WSW 7 days a wk. Up to 12,500'.

NEW JERSEY

Hairstown Arpt: Daily excp Tues. From 13,000'.

Flemington, Adams Arpk: Dalgt hrs. Weekends. Up to 25,000'.

Lightstown, Applegrath Landing Strip: Weekends. Up to 12,500'.

Lakehurst NAS–West Fld: Up to 12,000'.

Lakewood Arpt: Within 2 mi radius. Up to 12,500'.

Manville Kupper Arpt: Dalgt hrs daily. Up to 25,000'.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500'.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500'.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000'.

Greene Arpt: Within 5 mi radius. Weekends and holidays till 1 hr after SS. Wed 1500–1 hr after SS. Up to 15,000'.

Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. Up to 13,000' AGL.

Randolph Arpt: Daily. Up to 15,000'.

Tomnville Arpt: Weekends and holidays. Up to 12,000'.

NORTH CAROLINA

Charlotte, Brockenborough Arpt: 5 mi N. Wed, Sat and Suns, beginning at 1200E. Up to 14,000'.

Erwin Arpt: Weekends.

Greensboro, Air Harbor Arpt: Weekends.

New River MCAF: On V157 1100–0300 daily from 23,500'.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000' MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500'.

OHIO

Bucyrus, Port Bucyrus Arpt: Weekends. Up to 12,500'.

Canton City Arpt: 2 NE Canton; 7 mi SE Akron Canton Arpt. Up to 16,000' MSL.

Circleville: 5 mi NE. Sat and Sun 1600Z to SS. Up to 12,000'.

Columbia Station Arpt: About 3 mi SW. Daily. Up to 8500' AGL.

Columbus Mun Arpt: 17 mi SW. Evenings except Mon and Fri; weekends and holidays. Up to 10,000' AGL.

Elyria, Nimrod Arpt: 2000Z thru 0300Z Mon thru Fri., 1500Z thru 2400Z Sat and Sun. Up to 12,500' AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000' AGL.

Geneva, Germack Arpt: 3 mi SE Suns 1600Z–0200Z. Up to 9,000'.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500'.

Piqua Arpt: Up to 12,000'. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Weekends. Up to 10,000'.

South Dayton Arpt: Up to 18,000'. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500'.

Waynesville Arpt: Suns. Up to 10,000'.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000'.

Xenia Arpt: Daily. Up to 20,000'.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000'.

OKLAHOMA

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500' AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500' AGL.

OREGON

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000' AGL.

Medford Arpt: 4 mi W. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Portland: From various alts, moderate wkdays, hvy wkends and holidays. Jump sites 5 mi S of Hillsboro arpt: 3 mi S of Beaverton arpt; 3 mi E of Scholl Arpt, Orchards, Wash; and 7 mi NNE Scholl Arpt.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000'.

PENNSYLVANIA

Campbelltown, Reigles Arpt: Daily. Up to 15,000'.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500' MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000'.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500'.

New Hanover Arpt: Most activities weekends. Up to 12,500'.

Pottstown Arpt: Weekends. Up to 8000′.
Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Fairfax Arpt: Weekends. Up to 12,500′.
Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.
Moncks Corner Mun Arpt: Weekends. Up to 10,000′.
Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.
Sumter Arpt: Daily 1800Z to sunset. From 7,200′. Sat, Sun, holidays. Up to 10,000′.
Timmonsville, Huggins Arpt: Sat, Sun and holidays. From 10,000′.
Walterboro Mun Arpt: Weekends. From 10,000′.

TENNESSEE

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.
Cleveland, Hardwick Fld: 6 mi S. 0600 to 1900 EST 7 days per wk. Up to 12,500′.
Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.
Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.
Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: One mile E of S end rnwy. From 3300′.
Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.
Cleburne Arpt: Weekends. Up to 7,500′ MSL.
El Paso: 6 nmi NW Biggs AFB. Up to 17,500′ MSL.
Ganado, Calaway Arpt: Weekends. Up to 10,000′.
Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.
Houston, Waller Arpt: Parachuting, gliding and ballooning within 5 mi radius. Daily, day and ngt. Up to 24,000′.
Lampassas Arpt: Weekends. Up to 14,000′ MSL.
Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.
Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.
San Antonio, Lakefield Arpt: 1.5 mi W. Weekends and holidays. Up to 14,000′.
San Antonio, Stinson Fld: 4 NM S SW.
San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.
Taylor Mun Arpt: Weekends.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.
Ogden: 8 mi N. Up to 12,000′ MSL. Daily.
Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up 7500′.
Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sl diving.
Clover Arpt: 3 mi radius. Suns. Up to 8,000′.
Forest, New London Arpt: Daily. Up to 11,000′.
Hopewell Arpt: Weekends. Up to 9000′.
Leesburg: 2 nmi N or 10 nmi Herndon VOR on 34 radial. Weekends. Up to 12,500′. Occasional n jump.
Midland: 8 nmi from CSN VOR on 120° rad. Weeken Up to 12,000′.
New Castle Intl Arpt: Weekends and holiday. Up 14,000′.
Pulaski, New River Valley Arpt: Weekends, holidays, a evening. Up to 13,000′.
South Boston, Tuck Arpt: Within 3 mi radius. Suns 12 to 1800 EST. Up to 10,000′.
South Norfolk Arpt: Within 5 mi radius. Weekends a evenings. Up to 13,000′.
Suffolk Mun Arpt: Weekends and holidays. Up to 12,00
Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.
West Point Arpt: Weekends and holidays. Up to 12,0

WASHINGTON

Enumclaw Arpt: Weekends and holidays. Up to 15,00
Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up 7000′.
Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.
Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,50 MSL.
Puyallup, Thun Fld: Tues, Thurs and weekends. Up 12,000′.
Richland Arpt: 3 mi W SR to 1 hr after SS. Up to 12,50 AGL.

WEST VIRGINIA

Morgantown Arpt: 8 NM SSW. Days.

WISCONSIN

Juneau (Dodge Co Arpt): Weekdays after 1700 Sat a Sun afternoons. Up to 13,500′.
Lake Geneva/Natl Sports Parachuting Center: Daily. Up 15,000′.
Superior Arpt: 5 mi SE weekends SR–SS. Up to 12,500′.
Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fr Up to 12,500′ MSL.
Osseo: 3 mi W. Sundays. Up to 10,000′.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

The following list will hereafter appear in EACH issue of the AIRGI.
This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Low Altitude Stratum—A distinctive numbering system (800 Series) has been introduced to indicate some of the preferred routes in this stratum and thereby eliminate the present lengthy route descriptions. Many of the preferred routes, however, retain the common basic airway numbers to use the two systems of numbering in combination. Additional designations of "800 Series Airways" will be made where simplicity and convenience to both pilots and controllers dictate such assignments.

Preferred Route Starting and Terminating Fixes--Preferred routes generally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Survey, are the normal routes between the airport and the preferred route starting/terminating fixes. Whenever a fix is shown in **bold-face** type, pilots should refer to the appropriate Area Chart for the routing he may expect prior to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR, VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV,LFR, DOV,Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston..... V2 **GDM** (L-25)
Kennedy..... V91 V475 **DPK** (L-25)
La Guardia..... V91 V1 V123 **Stamford** (L-25)
Newark..... V489 CET SAX SAX 205 rad **Budd Lake** (L-25, 24)

ALBUQUERQUE

Denver..... **ADEN** V19W SAF V83 PUB V19E **IOC** (L-4, 6)
Kansas City..... **Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L-6)
Los Angeles..... **GNT** V12 EED V208 TNP V264S **ONT.** (L-4, 3)
Phoenix..... **GNT** V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham..... **Newnan** V20N V66 V115 Lewis (L-20, 14)
Cincinnati..... Crabapple V97 **Dry Ridge** (L-20, 22)
Charlotte..... **Conyers** V66 FML (L-20)
Chicago..... **Crabapple** V51 **CGT** (L-14, 20, 21, 23)
Dallas..... **Newnan** V20N V66 TCL V18N MEI V18 MLU V94 V477E **Forney** (L-20, 18, 17, 13)
Dulles Intl..... **Conyers** V66 FML V454 LVL V155 GVE V39 **CSN** (L-20, 22)
Houston..... **Newnan** V20N V66 TCL V18N MEI V194 MCB V222 LCH V222N **Monument** (L-20, 14, 18, 17, 15)
Kennedy..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 (L-20, 22, 24)
Jacksonville..... **ATL** V243 V5W **Callahan** (L-20, 18)
La Guardia..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 **JFK** (L-20, 22, 24)
Memphis..... **Newnan** V20N V66 V115 BHM V176N HLI (L-20, 14)
Miami..... **Brooks** V843 **MIA** (L-20, 18, 19)
Newark..... **Conyers** V66 FML V454 V157 V20 V213 V29 V433 **Rocky Hill** (L-20, 22, 24)
Orlando..... **Griffin** V243 AMG V157 OCF V159W Clermont (L-20, 18, 19)
Pittsburgh..... **Crabapple** V97 TYS V115 PKB V119 **HLG** (L-20, 22, 24)
Tampa..... **Brooks** V843 HOMO V35E **Hazel** (L-20, 18, 19)
Washington..... **Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta..... ANB V18 **Sargent** (L-14, 20)
New Orleans..... TCL V875 **Madison** (L-14, 18, 17)
Pittsburgh..... GAD V115E CHA V115 PKB V119 **HLG** (L-14, 22, 24)

BOSTON METRO AREA

Albany..... **Westbere** V14 Melrose (L-25)
Buffalo..... V2 ROC V142 **Grant** (L-25)
Cleveland..... **Westbere** V14 ALB V72 Hadley V232 **Mentor** (L-25, 24)
Kennedy..... **PUT** V879 **DPK** (L-25)

BOSTON METRO AREA—Continued

La Guardia	**Millbury** V875 V157 **Stamford** (L-25)
Newark	**Millbury** V875 V251 SAX SAX 205 rad **Budd Lake** (L-25, 24)
Philadelphia	**Millbury** V875 **Warrington** (L-25, 24)
Rochester	**GDM** V2 SYR V2N Sodus (L-25)
Washington	**PUT** V888 **North Beach** (L-25, 24)

BUFFALO METRO AREA

Boston	V2 **GDM** (L-12, 25)
Cleveland	**Langford** V464 DKK V14 **Mentor** (L-12, 24)
Detroit	V2 QO V90N Dolphin V90 **QG** (L-12, 23)
Kennedy	V252 BGM V270 V34 V475 **DPK** (L-12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 **Liberty** (L-12, 25)
Midway	V84 LAN V218 **Surf** (L-12, 23)
Newark	V252 GEE V147 ELM V36 AVP 153 **BUDD LAKE** (L-12, 25)
O'Hare	V84 **OBK** (L12, 23)
Philadelphia	V33 HAR V12 **ESR** (L-12, 24)
Pittsburgh	V115 **EWC** (L-12, 24)
Washington	V33 HAR V265 **Clarksville** (L-12, 24)

CHARLESTON, W. VA.

Cincinnati	V128 YRK V128S **Grants Lick** (L-22)
Cleveland	V115 PKB V839 **Sharon** L-22, 24, 23)
Columbus	V133 V214 Hanover (L-22, 23)
Louisville	V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh	V115 PKB V119 **HLG** (L-22, 24)
Washington	V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta	FML V194 Homer V20N **OCR** (L20)
Cleveland	Moorseville V37 PSK V839 **Sharon** (L-20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 **BQT** (L-20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 **JFK** (L-20, 22, 24)
Miami	FML V37 ALD V157 LAL V843 **Cypress** (L-20, 18, 19)
Washington	New London V454 LVL V157 **Ironsides** (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	**EON** V843 **Kennesaw** (L-23, 21, 14, 20)
Denver	**Malta** V846 (L-23, 6, 8)
Dulles	**EON** V853 **HRN** (L-23, 22)
Kennedy	V6 SEG V810 **RBV** (L-23, 24)
Indianapolis	**EON** V128 (L-23)
La Guardia	V6 V433 **Liberty** (L-23, 24)
Los Angeles	**Malta** V846 DEN V8 (L-23, 6, 8, 3)
Memphis	**Big Run** V173 CAP V9 **Kernville** (L-23, 21, 14)
Miami	**EON** V843 (L-23, 21, 14, 18, 19)
Minneapolis	V855 **FQT;** or V172 V129 RWY V855 **FQT** (L-23, 11, 10)
Newark	V6 SEG V30 **Rocky Hill** (L-23, 24)
Philadelphia	V6 V30 PSB V33 HAR V12 **ESR** (L-23, 24)
Pittsburgh	V6 V103 ACO V297 **EWC** (L-23)
San Francisco	**Malta** V854 (L-23, 11, 8, 7, 2)
St. Louis	**Big Run** V191 V426 **Gedfrey** (L-23, 21)
Tampa	V843 Home V35E **Hazel** (L-23, 21, 14, 20, 18, 19)
Tulsa	V845 EOS V14 (L-23, 6, 14)
Washington	**EON** V853 **HRN** (L-23, 22)

From Midway only

Cleveland	**Crib** V6 V232 **Vermilion** (L-23)
Des Moines	**API** V8 CVA V233 CID V846 **TNU** (L-23, 11)
Kansas City	**API** V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co	V10 **Dundee** (L-23)
Omaha	**API** V8 CVA V233 CID V846 EOL (L-23, 11)
Willow Run	**Crib** V10 LFD V90 (L-23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 **Vermilion** (L-23)
Des Moines	V172 **TNU** (L-23, 11)
Kansas City	V84 BDF V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co	V100 Leroy V30 LFD V10 **Dundee** (L-23)
Omaha	V172 PLL V846 EOL (L-23, 11)
Willow Run	V100 V30 V90 (L-23)
Windsor	V100 V218 **Plains** (L-23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 **OCR** (L-21, 22, 20)
Charleston, W. Va.	V128 (L-21, 22, 20)
Chicago	V97 **CQT** (L-21, 23)
Detroit (City)	V275 VWV V47 **SVM** (L-21, 23)
Indianapolis	V97 (L-21, 23)
La Guardia	V128 YRK V44 MGW V106 SEG V6 V433 **Libe** (L-22, 24)
Louisville	V47 ABB V51 (L-21)
Metro Wayne Co	V275 VWV V47 **Dundee** (L-21, 23)
Miami	V47 ABB V51 CSV V51W CHA V843 **Cypress,** or V ATL V843 **Cypress** (L-21, 22, 20, 18, 19)
Newark	V128 YRK V44 MGW V106 V30 **Rocky Hill** (L-22,
Pittsburgh	V128 YRK V44 PKB V119 **HLG** (L-22, 24)
St. Louis	V47 ABB V44 ENL V4 **TOY** (L-21)
Willow Run	V275 VWV V47 **Dundee** (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 **GDM** (L-23. 12, 25)
Buffalo	V14N **Crystal Beach** (L-23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L-23, 22, 20)
Chicago	V126 CGT V7 **Niles** (L-23)
Columbus	V443 TVT V43 APE (L-23)
Dayton	V14 ATO V435 ROD (L-23)
Detroit (City)	V42E QG V90 (L-23)
Kennedy	**ACO** V30 SEG V810 **RBV** (L-24)
Indianapolis	**CLE** V14 (L23)
La Guardia	**ACO** V30 CIP V6 Amboy V433 **Liberty** (L-24)
Metro Wayne Co	V42E V10 **CRL** (L-23)
Miami	V881 **Cypress** (L-22, 20, 18, 19)
Newark	**ACO** V30 **Rocky Hill** (L-24)
Philadelphia	**ACO** V30 PSB V33 HAR V12 **ESR** (L-24)
Pittsburgh	**ACO** V297 **EWC** (L-24)
Rochester	V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington	**ACO** V103 IRL V37 Millsboro V92 FRR V4 HF (L-24)
Willow Run	V42E QG V90 (L-23)

COLUMBUS

Charleston, W. Va. APE V38 V133 (L-23, 24, 22)
Indianapolis..... Grindell V210 (L-23)
La Guardia..... APE V802 V6 V433 **Liberty** (L-23, 24)
Pittsburgh..... APE V12 **HLG** (L-23, 24)
St. Louis..... V12N V210 VLA V14N **Godfrey** (L-23, 21)
Toledo..... V38 FDY V47 (L-23)
Washington..... APE V144 ESL V4 **HRN** (L-23, 24)

DALLAS-FT. WORTH METRO AREA

Amarillo..... **Lakeside** V114 Claude (L-13)
Atlanta..... **DAL** V278 BHM V18N V18 **Sargent** (L-13, 14, 20)
Dulles Intl..... V830 MOL V251 **FRR** (L-13, 14, 21, 22)
El Paso..... **Jochua** V94 INK V16 **RIO** (L-13, 4)
Houston..... **Trinity Fork** V477 LOA V477W **Fairbanks** (L-13, 17)
Los Angeles..... **Jochua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L-13, 4, 3)
Memphis..... **DAL** V830 PBF V16N Round Pond (L-13, 14)
Midway..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
New Orleans..... **DAL** V114 **French** (L-13, 17)
O'Hare..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
San Antonio..... **Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L-13, 15)
Tulsa..... **DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L-13, 6)
Washington..... **DAL** V830 **Ironsides** (L-13, 14, 21, 22)

DAYTON

Chicago..... DAY 001 Radial V277 FWA V55 V422 **CGT** (L-23)
Cleveland..... V275 FDY V8 MFD V246 **Sharon** (L-23)
Detroit (City)..... V275 FDY V47 **SVM** (L-23)
La Guardia..... V802 V6 V433 **Liberty** (L-23, 24)
Metro Wayne Co./ Willow Run..... V275 FDY V47 **Dundee** (L-23)
Oklahoma City.... DAY V50N IND V210 STL V14 TUL V14N **Stillwater** (L-23, 21, 6)
Washington..... V12 APE V144 ESL V4 **HRN** (L-23, 24)

DENVER METRO AREA

Chicago..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L-8, 11, 23)
Kennedy..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L-8, 11, 23, 24)

DETROIT METRO AREA

Kennedy..... V221 ERI V810 SEG V30 ETX **RBV** (L-12, 24)
From City and Windsor only
Newark..... V221 ERI V810 SEG V30 **Rocky Hill** (L-12, 23, 24, 28, 25)
Philadelphia..... V221 ERI V116 BFD V33 HAR V12 **ESR** (L-12, 24)
Ft. Wayne..... **SVM** V710 Leslie V45 JXN V221 (L-23)
Midway..... **SVM** V170 V84 V7E V116 (L-23)
Milwaukee..... **SVM** V170 PMM V30S **Pike** (L-12, 23)
O'Hare..... **SVM** V170 V84 **OBK** (L-23)
From Metro or Willow Run only
Buffalo..... V221 V90 V14N **Crystal Beach** (L-12)
Cleveland..... **Crest** V297 **Vermilion** (L-23)
Ft. Wayne..... **Dexter** V221 (L-23)
Midway..... **Pinckney** V170 V84 V7E V116 (L-12, 23)
Milwaukee..... **Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L-12, 23)
O'Hare..... **Pinckney** V170 V84 **OBK** (L-12, 23)
Pittsburgh..... **Crest** V133 BAY V6 V42 ACO V297 **EWC** (L-23,24)
Rochester..... V221 V90 V14 V2 (L-12)
Washington..... **Crest** V133 ZZV V144 ESL V4 **HRN** (L-23, 24)

EL PASO

Dallas..... **HUP** V66 MAF V16S BGS V16 ABI V66 Denton V114 **Lakeside** (L-4, 13)
Los Angeles..... **EWM** V94 GBN V461 BXK V16 **ONT** (L-4, 3)
San Antonio..... **HUP** V198 **Beerne** (L-4, 15)

HAVANA

Miami..... Balboa drct MTH drct Sable B19 **PRR** (L-19)

HOUSTON METRO AREA

Atlanta..... **LaPorte** V20S LCH V20 LFT V70 EVR V20 **Tyrone** (L-17, 18, 14, 20)
Dallas..... **Gulf Coast** V477E **Forney** (L-17, 13)
New Orleans..... **LaPorte** V20S LCH V20 **Turtle** (L-17)
San Antonio..... **Andrau** V222 **Hunter** (L-17, 15)

INDIANAPOLIS

Detroit..... V11 **SVM** (L-23)
Evansville..... V11W SCJ V11E (L-21)
Kennedy..... V50 DAY V12 V162 V810 **RBV** (L-23, 24)
La Guardia..... V50 DAY V802 V6 V433 **Liberty** (L-23, 24)
Metro Wayne Co... V11 V10 **Dundee** (L-23)
Midway..... V97W V97 **CGT** (L-23)
Newark..... V50 DAY V802 V30 **Rocky Hill** (L-23, 24)
Pittsburgh..... V50 DAY V12 **HLG** (L-23, 24)
St. Louis..... V14 VLA V14N **Godfrey** (L-21)
Willow Run..... V11 V10 **Dundee** (L-23)

JACKSONVILLE

Atlanta..... **Kings** V5E **MDU** (L-18, 20)
Dulles Intl..... **Clinch** V3E SAV V3 RDU V155 GVE V39 **CSN** (L-18, 20, 22)
Kennedy..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L-18, 20, 22, 24)
LaGuardia..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **JFK** (L-18, 20, 22, 24)
Miami..... **Blue Jacket** V267 **New River** (L-19)
Newark..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L-18, 20, 22, 24)
Norfolk..... **Clinch** V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN (L-18, 20, 22)
Orlando..... **Blue Jacket V267** Woodruff (L-18, 19)
Philadelphia..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L-18, 20, 22, 24)
Washington..... **Clinch** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway..... **Excelsior** V116 **JOT** (L-21, 23)
O'Hare..... **Excelsior** V116 **JOT** (L-21, 23)
St. Louis..... **BSP** V12 **MTS** (L-21)
Wichita..... **Bonner Springs V12** De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia..... V4 CRW V106 SEG V6 V433 **Liberty** (L-21, 22, 24)
Newark..... V4 CRW V106 V30 **Rocky Hill HIll** (L-21, 22, 24)

MEMPHIS

Atlanta..... HLI V176 BHM V18N V18 **SARGENT** (L-14, 20)
Dallas..... **Eudora** V16S PBF V887 **DAL** (L-14, 13)
Dulles Intl..... **Moscow** V16S GHM V830 V251 **FRR** (L-14, 21, 22)
Midway..... Cuba V9W V9 **JOT** (L-14, 21, 22)
New Orleans..... **Arkabutla** V9W GRW V9 **MADISON** (L-14, 17)
O'Hare..... Cuba V9W V9 **JOT** (L-14, 21, 23)
Washington..... **MOSCOW** V16S GHM V830 **IRONSIDES** (L-14, 22)

METRO WAYNE CO--See Detroit Metro Area

MIAMI METRO AREA

Atlanta..... **MIA** V35 V7 LAL V157 AMG V51E DBN V5E **MDU** (L-19, 18, 20)
Charlotte..... **MIA** V35 V7 LAL V157 ALD V37 FML L-19, 18, 20)
Chicago..... **MIA** V35 FMY V819 DBN V267 TYS V97 **CGT** (L-19, 20, 22, 21, 23)
Cleveland..... **MIA** V819 (L-19, 20, 22, 21, 23)
Detroit (City)..... V839 CLE V42 **QG** (L-19, 20, 22, 21, 23)
Dulles Intl..... **GUPPY** Direct HALIBUT Control 1150 ILM V157 LVL V155 GVE V39 **CSN** (L-19, 20, 22)
Habana..... **Gary** V51 EYW drct SF/Rbn; or PRR/Rbn drct Leon drct EYW drct SF/Rbn (L-19)
Kennedy..... **Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L-19, 20, 22, 24)
Jacksonville..... **Martin** V3E PBI V3 DAB V3E **Shiloh** (L-19)
La Guardia..... **Guppy** drct Halibut Control 1150 ILM VIW V213 **JFK** (—19, 20, 22, 24)
Metro Wayne Co... V839 CLE V42 V10 **CRL** (L-19, 20, 22, 24, 23)
Newark..... **Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L-19, 20, 22, 24)
Pittsburgh..... **MIA** V35 V7 LAL V157 ALD V37 **AGC** (L-19, 20, 22, 24)
Tampa..... **MIA** V35 **Hanson** (L-19)
Washington..... **Guppy** drct Halibut Control 1150 ILM V157 **Ironsides** (L-19, 20, 22)
Willow Run..... V839 CLE V42 **QG** (L-19, 20, 22, 24, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago..... V9 **API**; or **Taylor** V7E V116 **Surf** (L-12, 23)
Detroit..... V2S MKG V2 **SVM** (L-12)
Kennedy..... V2S MKG V2 SVM V116 QG V810 SEG V30 ETX **RBV** (L-12, 23, 24)

MINNEAPOLIS METRO AREA

Midway..... **Prescott** V2 V97 V171 V6 **API** (L-10, 11, 23)
O'Hare..... **Prescott** V2 V97 **Lakewood** (L-10, 11, 23)

MONTGOMERY

Washington..... **TGE** V154 MCN V56 AGS V155 V157 **Ironsides**; **Martin** V837 **Ironsides** (L-10, 20, 22)

NASHVILLE

La Guardia..... **Freedom** V140N LOZ V830 GVE V837 ENO V **JFK** (L-21, 22, 24)
Newark..... **Freedom** V140N LOZ V830 GVE V837 ENO V29 V **Rocky Hill** (L-21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta..... **PCU** V837 **Tyrone** (L-17, 18, 20)
Birmingham ..... **PCU** V445 MEI V18 Abernant (L-17, 18, 14)
Dallas..... **Walker** V-114N ALEX V-114 GGG V-94 V-4 **Forney** (L-17, 13)
Dulles Intl..... **PCU** V837 GVE V39 **CSN** (L-17, 18, 20, 22)
Houston..... **TBD** V20S LFT V20 LCH V222N **Monument** (L-
Kennedy..... **PCU** V837 SBV V20 V213 ENO V44 **BGT** (L-17, 20, 22, 24)
Memphis..... **PCU** V9E MCB V9 GRW V9E **Independence** (L-1
Newark..... **PCU** V837 SBV V20 V213 ENO V29 V433 **Rocky** (L-17, 18, 20, 22, 24)
Washington..... **PCU** V837 **Ironsides** (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany..... **Sound** POU V487 Brainard (L-25)
Bradley..... **Sound** BDR BDR 020 radial Tamie (L-25)

From Newark only

Albany..... **SAX** POU V487 Brainard (L-25)
Atlanta..... **SBJ** V875 MOL V143 V222 V35 V20N **OCR** (L-22, 20)
Baltimore..... **SBJ** V875 V93 (L-24)
Boston..... **SAX** POU V861 Sterling (L-25)
Bradley..... **SAX** CET CET 096 radial Tamie (L-25)
Buffalo..... **TVE** V188 V147 V36 **Dale** (L-25)
Cincinnati..... **SBJ** V875 V166 V4 V174 V128S **Grants Lick** (L-22)
Cleveland..... **TVE** V232 **Mentor** (L-24, 23)
Detroit (City)..... **TVE** V188 V103 **QG** (L-24, 23)
Detroit Metro Area.. **SAX** V880 **QG** (L-24, 23)
Dulles Intl..... **SBJ** V875 EMI V166 V223 **Sugar Loaf** (L-24)
Indianapolis..... **TVE** V232 V804 (L-24, 23)
Jacksonville..... **SBJ** V875 V29 SWL V139 V1 V437 SAV V3 **St. Mi** (L-24, 22, 20, 18)
Louisville..... **SBJ** V875 V166 V4 V174 V44 FLM V502 (L-24, 22
Metro Wayne Co... **TVE** V188 **CRL** (L-24, 23)
Miami..... **SBJ** V3 V29 SWL V139 CCV V1 Control 1150 St geon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Nashville..... **SBJ** V875 MOL V887 HIY V140S **Sharp Spr** (L-24, 22, 14)
New Orleans..... **SBJ** V875 **Madison** (L-24, 22, 20, 14, 18)
Norfolk Metro Area.. **SBJ** V875 V29 SWL V139 CCV (L-24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia..... **SBJ** V875 **Warrington** (L-24)
Pittsburgh..... **TVE** V232 ETG V226 **EWC** (L-24)
Province..... **SAX** POU V861 V130 Lafayette (L-25)
Rochester..... **SAX** V807 Fishers (L-25)
Syracuse..... **SAX** V483 (L-25)
Toledo..... **TVE** V232 Mentor V126 (L-24, 23)
Washington..... **SBJ** V875 ESR ESR 244 rad **Clarksville** (L-24)
Willow Run..... **TVE** V188 V103 **QG** (L-24, 23)

From Kennedy only

Atlanta..... **Dutch** V888 V213 V20 SPA V20N **OCR** (L-24, 22, 20)
Baltimore..... **Dutch** V888 V44 (L-24)
Boston..... **HTO** V837 **Cohasset** (L-25)
Buffalo..... **HUO** V126 V36 **Dale** (L-25)
Cleveland..... **HUO** V126 V58 V226 V232 **Mentor** (L-25, 24, 23)
Detroit (City)..... **HUO** V126 V880 **QG** (L-25, 24, 23)
Dulles Int'l..... **HUO** TVE V39 V162 HAR V223 **Sugar Loaf** (L-25, 24)
Europe..... **HTO** V46 (L-25)
Jacksonville..... **Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville..... **HUO** TVE V39 V251 V166 V4 V174 V44 FLM V502 (L-25, 24, 22, 21)
Metro Wayne Co... **HUO** V126 BFD V72 V188 **CRL** (L25, 24, 23)
Miami..... **Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal..... **Sound** POU V487 (L-25, 26)
New Orleans..... **Dutch** V888 V16 ROA V875 **Madison** (L-24, 22, 20, 14, 18, 17)
Norfolk Metro Area. **Dutch** V139 CCV (L-24, 22)
O'Hare..... **HUO** V126 AVP V880 **OBK** (L-25,24, 23)
Philadelphia..... **Dutch** CYN V140 V239 **OOD** (L-24)
Pittsburgh..... **HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence..... **HTO** V837 (L-25)
Rochester..... **HUO** V249 V34 Fishers (L-25)
Syracuse..... **HUO** V483 (L25)
Toronto..... **HUO** V126 AVP V36 (L-25, 12)
Washington..... **Dutch** V888 **North Beach** (L-24)
Willow Run..... **HUO** V126 BFD V72 V188 V103 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta..... **Paterson** V875 MOL V143 V222 V35 V20N **OCR** (L-24, 22, 20)
Baltimore..... **Paterson** V875 V93 (L-24)
Boston..... Sound V863 (L-25)
Buffalo..... **SAX** V36 **Dale** (L-25, 12)
Cincinnati..... **Paterson** V875 V166 V4 V174 V128S **Grants Lick** (L-24, 22)
Cleveland..... **SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus..... **SAX** TOH V804 V119 V214 Hanover (L-24, 23)
Detroit (City)..... **SAX** V880 **QG** (L-24, 23)
Dulles Intl..... **Paterson** V875 EMI V166 V223 **Sugar Loaf** (L-24)
Indianapolis..... **SAX** TOH V804 (L-24, 23)
Louisville..... **Paterson** V875 V166 V4 V174 V44 FLM V502 (L-24, 22, 21)
Montreal..... **Sound** POU V487 (L-25)
Metro Wayne Co... **SAX** V880 V14N V188 **CRL** (L-24, 23)
Nashville..... **Paterson** V875 MOL V887 HIY V140S **Shop Spring** (L-24,22, 21)
O'Hare..... **SAX** V880 **OBK** (L-24, 25)
Philadelphia..... **Paterson** V875 **Warrington** (L-24)
Pittsburgh..... **SAX** TOH V804 ETG V226 **EWC** (L-24)
Providence..... **Sound** V863 V130 Lafayette (L-24, 25)
Rochester..... **SAX** V807 Fishers (L-25)
Toronto..... **SAX** V36 (L-25, 12)
Washington..... **Paterson** V875 ESR ESR 244 rad **Clarksville** (L-24)
Willow Run..... **SAX** V880 V14N V188 V103 **QG** (L-24, 23)

NORFOLK METRO AREA

Charlotte..... CVI V194 Midland (L-22, 20)
Dulles Intl.. Farnham V286 **CSN** (L-22)
Kennedy..... CCV V1 **BGT** (L-22, 24)
Jacksonville..... CVI V805 **St. Marys** (L-22, 20, 18)
LaGuardia..... CCV V1 SBY V29 ENO V213 **JFK** (L-22, 24)
Newark..... CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia..... CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond..... HCM V156 (L-22)
Washington..... Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton..... **Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita..... **Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta..... Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville..... Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore..... **EWT** V166 V93 (L-24)
Boston..... **MIV** 100 rad V837 **Cohasset** (L-24, 25)
Buffalo..... **Reinholds** V170 SLT V501 ELZ V119 Burns V36 **Dale** (L-25)
Cleveland..... **Reinholds** V162S HAR V12 AGC V8 BSV V40 **Sharon** (L-24, 23)
Detroit (City)..... **Reinholds** V162S V12 V37 V103 V42 **QG** (24, 23)
Dulles Intl..... **EWT** 300 rad V875 EMI V166 V223 **Sugar Loaf** (L-24)
Kennedy..... **Columbus** V123 **RBV** (L-24)
Jacksonville..... **MIV** 180 rad V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
LaGuardia..... **Columbus** V213 **JFK** (L-24)
Metro Wayne Co... **Reinholds** V16S V12 V37 V103 V42 V10 **CRL** (L-24, 23)
Miami..... **MIV** 180 rad V139 CCV V1 Control 1150 Sturgeon drct Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark..... V433 **Rocky Hill** (L-24)
Norfolk Metro Area. **MIV** 180 rad V139 CCV (L-24, 22)
Pittsburgh..... **Reinholds** V162S V12 (L-24)
Rochester..... Reinholds V170 V31 Fishers (L-24, 25)
Washington..... EWT V166 EMI V3 V8 (L-24)
Willow Run..... **Reinholds** V162S V12 V37 V103 V42 **QG** (L-24, 23)

PHOENIX

Albuquerque..... **Lake** V190 Suwanne (L-4)
El Paso..... V105 CZG V94 SSO V198 **Harrington Ranch** (L-4)
Kansas City..... V190 DHT V234 HUT V280 TOP V4N **Farley** (L-4, 6)

PITTSBURGH METRO AREA

Buffalo..... V37 EWC V115 (L-24, 12)
Cleveland..... V40 **Sharon** (L-23, 24)
Philadelphia..... **CLN** V210 V12 **ESR** (L-24)
Willow Run..... V40 CLE V26 **Park** (L-24, 23)

From Greater Pittsburgh only

Atlanta..... V103 Finley V115 TYS V267 **OCR** (L-24, 22, 20)
Baltimore..... V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston..... **Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston, W. Va. V103 Finley V115 PKB V59 V106 (L-24, 22)
Chicago..... V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus..... V103 Wolfdale V214 (L-24, 23)
Detroit..... V40 CLE V26 **Park** (L-24, 23)
Kennedy..... V119 V279 **RBV** (L-24)
Indianapolis..... V210; or **Kilgore** V210 (L-24, 23)
LaGuardia..... V119 V276 Reedsville V802 V6 V433 **Liberty** (L-24)
Newark..... V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia..... **CLN** V210 HAR V12 **ESR** (L-24)
St. Louis..... **Kilgore** V210 VLA V14N **Godfrey** (L-23, 21, 6)
Washington..... V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago..... **AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy..... V802 Reddsville V276 **RBV** (L-24)
La Guardia..... V802 SEG V6 V433 **Liberty** (L-24)
Newark..... V12 HAR V162 V30 **Rocky Hill** (L-24)

PROVIDENCE

Kennedy..... V167 V16 V879 **DPK** (L-25)
LaGuardia..... V167 V875 V157 **Stanford** (L-25)
Newark..... V167 HFD V251 SAX SAX 205 rad **Budd Lake** (L25)

PORTLAND

Seattle..... V23 **Rainier** (L-1)

RICHMOND

Philadelphia..... V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore..... V147 ELM V31 (L-25, 24)
Boston..... V2 **GDM** (L-25)
Detroit..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
Kennedy..... V147 GEE V252 BGM V270 V34 V475 **DPK** (L-25)
LaGuardia..... V147 ABE V6 V433 **Liberty** (L-25)
Newark..... V147 ELM V36 AVP V153 **Budd Lake** (L-25)
Philadelphia..... V147 ABE ABE 160 rad V3 **Warrington** (L-25, 24)
Washington..... V147 ELM V31 HAR V265 **Clarksville** (L-25, 24)
Willow Run..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)

SAN ANTONIO

Dallas..... **Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso..... **Guadalupe** V222 **Rio** (L-15, 4)
Houston..... **Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO

Chicago..... **LIN** V810 (L-2, 5, 7, 8, 11, 23)

SAN FRANCISCO/OAKLAND METRO AREA

Chicago (ORD)..... **LIN** V810 **Lakewood** (L-2, 5, 7, 8, 11, 23)
From San Francisco only
Burbank/Los Angeles. **Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2
Kennedy..... **LIN** V810 OBK V84 LAN V2 SVM V116 ERI V V276 **RBV** (L-2, 5, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland..... **TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V **Sharon** (L-21, 23)
Columbus..... **TOY** V12 (L-21, 23)
Dallas..... V14 EOS V845 **Gainesville** (L-21, 6, 13)
Ft. Worth..... V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis..... **TOY** V12 Wilbur V11 (L-21, 23)
Kansas City..... V4 **Missouri City** (L-21)
Memphis..... V9 Kerrville (L-21, 14)
Midway/O'Hare..... V9 **JOT** (L-21, 11, 23)
Tulsa..... V14 (L-21, 6)
Washington..... **TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

Kennedy..... V273 HNK V34 V475 **DPK** (L-25)
LaGuardia..... V153 V29 V6 V433 **Liberty** (L25)
Newark..... V153 **Budd Lake** (L-25)

TAMPA METRO AREA

Atlanta..... **V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami..... **Gibson** V97 **MIA** (L-19)

TORONTO

LaGuardia..... V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago..... V14 SGF V63 V116 **JOT** (L-6, 21, 11, 23)
Dallas..... OKM V845 **Gainesville** (L-6, 13)
Dayton..... V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 2
Indianapolis..... V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis..... V140 FYV V72 V9 **Lemay** (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston..... **Rock Hall** drct ENO V837 **Cohasset** (L-24, 25)
Chicago..... Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland..... Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville..... **BRV** V3 **St. Marys** (L-22, 20, 18)
Kennedy..... **Rock Hall** V123 **RBV** or Rock Hall V140 V236 **BGT** (L-24)
LaGuardia..... **Rock Hall** V123 RBV V213 **JFK** (L-24)
Newark..... **Rock Hall** V433 **Rocky Hill** (L-24)
Philadelphia..... **Rock Hall** V123 **OOD** (L-24)
Pittsburgh..... Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta..... **CSN** V140 MOL V143 LYH V222 AVL V35 Clear V20N **OCR** (L-22, 20)

ISHINGTON/BALTIMORE METRO AREA--Continued

rom Washington only

harleston, W. Va..	**CSN** V143 V156N V174 V4 (L-22)
harlotte.....	**BRV** V3 RDU V194 Weddington (L-22, 20)
allas.....	**CSN** V887 **DAL** (L-22, 21, 14, 13)
reensboro.. ..	**CSN** V140 MOL V143 Leaksville (L-22)
arrisburg.....	**Ashburn** V8N V223 (L-24)
ckson ville	**BRV** V3 **St. Marys** (L-22, 20, 19)
emphis	**CSN** V887 Fisherville (L-22, 21, 14)
iami.....	**BRV** V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
ashville....	**CSN** V887 LOZ V140S **Shop spring** (L-22, 21)
ew Orleans.....	**CSN** V875 **Madison** (L-22, 20, 14, 18)
orfolk Metro Area.	**BRV** V286 Tappahannock V213 HPW (L-22)

rom Baltimore only

ckson ville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

rom Dallas Intl only

ennedy.....	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L-24)
ckson ville.....	V39E GVE V155 FAK V3 **St. Marys** (L-24)
Guardia.....	**EMI** V166 EWT V157 RBV V213 **JFK** (L-24)
iami.....	V39E GVE V155 FAK V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**MRB** V251 V12 **ESR** (L-24)

WICHITA

Oklahoma City	Mayfield V77 PNC V77E **Stillwater** (L-6)
Kansas City	White Water V77 TOP V4N **Farley** (L-6)

●The following preferred route revisions are effective. Jan 7, 1965:

ALBANY

Newark	V489 IGN SAX SAX 205 rad **Budd Lake** (L25)

NEW YORK METRO AREA

From Newark only

Bradley	SAX IGN IGN 096 radial Tamie

● The following preferred route revisions are effective Feb. 4, 1965:

ATLANTA METRO AREA

Jacksonville	**Griffin** V243 AYS V243W **Callahan** (L20, 18)
Orlando	**Griffin** V243 AYS V157 OCF V159W **Clermont** (L20, 18, 19)

JACKSONVILLE

Atlanta	**Kings** V5E DBN V5 **MDU** (L18, 20)

MIAMI METRO AREA

Atlanta	**MIA** V35 V7 LAL V157 AMG V51 DBN V5 (L19, 18, 20

753-036 O - 64 - III-3

STANDARD INSTRUMENT DEPARTURES (SIDs)

A Standard Instrument Departure (SID) is a means for simplifying air traffic control clearances and relay and delivery procedures, and presents such air traffic control clearances to the pilot in pictorial and narrative form or narrative form only.

SIDs are established at civil airport for the most frequently used departure routes, if their establishment would be advantageous to both the users and air traffic control, and if the SID will materially reduce the verbiage of an air traffic control clearance.

SIDs are established at military airports, for the most frequently used departure routes, regardless of the simplicity or complexity of the air traffic control clearance.

Application of the SID program is limited to those flights where the pilots file in a proposed instrument flight plan a request for a specific SID or any SID available for the airport of departure.

The filing of a specific SID or any SID for the airport of departure in a proposed instrument flight plan or any request by the pilot, prior to takeoff, for a specific or any SID will be considered as a statement by the pilot that he is familiar with and has available in pictorial and narrative form or narrative form only all the SIDs pertinent to his operation from the airport of departure.

Participation in this program is voluntary on the part of the pilot. However, an accepted SID must be complied with as provided in Civil Air Regulations Sec. 60.21.

CALIFORNIA

Meadows Field, Bakersfield

Effective Dec. 10, 1964

BAKERSFIELD FOUR DEPARTURE

Via Bakersfield 205 radial to intercept and proceed via Lake Hughes 300 radial to Gorman 328 radial. Then via (transition) or (assigned route). Intercept Lake Hughes 300 radial/15 mile DME fix on Bakersfield 205 radial at (minimum 4,000 feet). Gorman Transition: via Gorman 328 radial to Gorman. Lake Hughes Transition: via Lake Hughes 300 radial to Lake Hughes. Palmdale Transition: via Lake Hughes 300 radial to intercept and proceed via Gorman 088 and Palmdale 269 radials to Palmdale. Note: This SID requires a minimum climb rate of 230 feet per mile to 9,500 feet.

GRAPEVINE THREE DEPARTURE

Via Bakersfield 148 and Gorman 328 radials to Gorman. Note: This SID requires a minimum climb rate of 290 feet per mile to 9,500 feet.

SANDBERG FOUR DEPARTURE

Via Bakersfield 121 and Lake Hughes 328 radials to Gorman 088 radial. Cross Arvin Intersection at (minimum 7,300 feet). Note: This SID requires a minimum climb rate of 400 feet per mile to 7,700 feet.

Fresno Air Terminal

In narrative form only

PINEDALE ONE DEPARTURE

Via direct Fresno VORTAC, then via (transition (assigned route). Castle Transition—Via Fresno 273 Castle 150 radials to Castle VOR.

BOWLES ONE DEPARTURE

Via direct Fresno radio Beacon: then a 135 magn bearing from the Fresno radio beacon to intercept the Banos 084 radial at or above 3,000 feet; then via Banos 084 radial to the Fresno 141 radial. Pixley Tra tion—Turn right via Fresno 141 and Bakersfield radials to Bakersfield. Exeter Transition—Continue Los Banos 084 radial to intercept and proceed via Fr 123 and Portersville 323 radials to Porterville.

CONNECTICUT

Bradley Field, Windsor Locks

In narrative form only

AVON ONE DEPARTURE

Via Poughkeepsie VOR 089 radial to Poughkee VOR. Cross Madison VOR 348 radial at or below 5 Cross Bridgeport VOR 357 radial at (as assigned ATC) then via (transition) or (assigned route). Hu not Transition: via Poughkeepsie VOR direct Hugue VORTAC.

HARTFORD ONE DEPARTURE

Via direct Hartford VOR. Hartford VOR 258 radial Yale intersection. Cross Madison VOR 360 radial at below 4000 feet. Cross Yale Intersection (as assigned ATC) then via (assigned route).

Bradley Field, Windsor Locks

Effective Dec. 10, 1964

STAFFORD ONE DEPARTURE

Departure headings from all runways will be assigned for to take-off. Via direct to V146, thence via V146 to tnam VORTAC; thence via Putnam VORTAC 100 dial to V16, V16 to Millis Intersection. Maintain at or low 3,000 feet for 3 minutes after departure; cross Put-m VORTAC at (as assigned by ATC) then via (as-gned route).

MADISON ONE DEPARTURE

Departure headings from all runways will be assigned for to take-off. Via 360° radial Hartford VOR to Hart-rd VOR; then direct Madison VOR; then V475 to Deer rk VOR. Maintain at or below 3,000 feet for 3 minutes ter departure; cross Madison VOR at (as assigned by TC) then via (assigned route).

Miami Intl Airport

Effective Jan. 7, 1965

MELBOURNE TWO DEPARTURE

Via the Biscayne Bay VOR 345 radial and the Vero ach VORTAC 178 radial to the Vero Beach VORTAC. hen via (transtion) or (assigned) route. Snapper ansition—Via the Vero Beach VORTAC 043 radial the Barracuda Intersection.

Concurrently cancel the Melbourne One Departure.

MASSACHUSETTS

Logan Field, Boston

Effective Dec. 10, 1964

GRENIER FIVE DEPARTURE

Via Boston VORTAC 347 radial to Manchester VOR-AC/Boston VORTAC 35 mile DME fix; cross Gardner ORTAC 101 radial/Boston VORTAC 15 mile DME fix as assigned by ATC). Then via (transition) or (as-gned route). Albany Transition—Via Manchester VOR-AC 290 radial to intercept the Albany VORTAC 097 dial to Albany VORTAC. Cambridge Transition—Via 90 to Cambridge VOR. Burlington Transition—Via 11 to Burlington VOR. Plattsburg Transition—Via anchester VORTAC 352 radial to Concord VOR direct Plattsburg VORTAC. Hopkins Transition—Via Man-ester VORTAC 290 radial Cambridge VOR 108 radial Cambridge VOR; thence via Cambridge via 289 rad-l, Syracuse VORTAC 105 radial to Syracuse VORTAC.

Concurrently cancel Grenier Four Departure.

NEVADA

Reno Mun Airport

VISTA FOUR DEPARTURE

Effective Dec. 10, 1964

Climb within three miles Reno Airport to cross the Airport at or above 6,400'. Then via Reno 230 radial to Reno. Then via (transition) or (assigned route). Hazen Tranition—via Reno 039 and Hazen 266 radials to Hazen. Youngstown Transition—via Reno 117 radial to intercept V105. Steamboat Transition—hold NE of Reno on the 039 radial, right turns, until reaching 10,500'. Then via Reno 190 radial to intercept V494. Cross Steamboat Intersection at (minimum 12,000'). Note: This SID requires a ceiling of at least 2,000', visibility two miles and a minimum climb rate of 200' per mile to 9,000'.

WASHOE FOUR DEPARTURE

Climb within three miles of Reno Airport to cross the Airport at or above 6,900'. Then via a 162 magnetic bearing from Reno Radio Beacon to Washoe Intersection. Cross Washoe at or above 10,000'. Then via (transition) or (assigned route). Wabuska Transition—via heading 085 to intercept V105. Lake Tahoe Transition— hold south of Washoe Intersection on the Reno 180 radial, right turns, until reaching (minimum 12,000'). Then inbound via Lake Tahoe 060 radial to intercept (V28/V113/V494/V6). Note: This SID requires a ceiling of at least 2,500', visibility two miles and a minimum climb rate of 250' per mile to 10,000'.

NEW YORK

Hancock Airport, Syracuse

In narrative form only

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route). Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). Florence Transition—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. Syracuse Transition—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. Pulaski Transition—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection. Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

John F. Kennedy Intl Airport, New York

Effective Jan. 7, 1965

KINGSTON ONE DEPARTURE

Via vector to Kingston VOR 160 radial. Kingston VOR 160 radial to Kingston VOR. Cross LaGuardia VOR 135 radial at or below 4000 feet. Cross LaGuardia VOR 092 radial at or above 5000 feet. Cross Kennedy VORTAC 054 radial at or above 8000 feet. Then via

(transition) or (assigned route). Dutchess Transition—Via Kingston VOR direct Poughkeepsie VOR.

Concurrently cancel Clermont Two Departure.

LaGuardia Field, New York

Effective Dec. 10, 1964

BAYVILLE FOUR DEPARTURE

Take-off Runway 4, 22, 31. Maintain runway heading for vector. Take-off Runway 13. Turn right after departure, heading 160, climb to 1500′ or for 45 seconds after passing airport boundary, whichever occurs first; then turn left heading 040 for vector. NOTE: After departure turn right to heading 160 as soon as practicable. Vector to LaGuardia VOR 071 radial; then via LaGuardia VOR 071 radial to Sound Intersection. Cross Carmel VOR 187 radial at or above 3000 feet; then via (transition) or (assigned route). TAMIE TRANSITION—Via Sound Intersection direct Bridgeport VOR; Bridgeport VOR 020 radial to Tamie Intersection.

ECHO LAKE THREE DEPARTURE

Take-off Runway 4, 22, 31. Maintain runway heading for vector. Take-off Runway 13. Turn right after departure, heading 160, climb to 1500′ or for 45 seconds after passing airport boundary, whichever occurs first; then turn left heading 040 for vector. NOTE: After departure turn right to heading 160 as soon as practicable. Vector to Sparta VORTAC 119 radial; then via Sparta VORTAC 119 radial to Sparta VORTAC. Cross Carmel VOR 237 radial at 4000 feet; cross Carmel VOR 250 radial at or above 6000 feet; then via (transition) or (assigned route). THORNHURST TRANSITION—Via Sparta VORTAC 295 radial and Thornhurst VORTAC 113 radial to Thornhurst VORTAC. DALTON TRANSITION—Direct Wilkes-Barre VORTAC; Wilkes-Barre VORTAC 309 radial to Huguenot VORTAC 291 radial; J70 to Erie VORTAC. Mid-State Transition—Via Sparta VORTAC 292 radial and Philipsburg VORTAC 082 radial to Philipsburg VORTAC.

WHITE HOUSE FIVE DEPARTURE

Take-off Runway 4, 22, 31. Maintain runway heading for vector. Take-off Runway 13. Turn right after departure heading 160, climb to 1500′ or for 45 seconds after passing airport boundary, whichever occurs first; then turn left heading 040 for vector. NOTE: After departure, turn right to heading 160 as soon as practicable. Vector to Sparta VORTAC 119 radial; then via the Sparta VORTAC 119 radial and V3 to Solberg VORTAC. Cross Carmel VOR 237 radial at 4000 feet; cross Sparta VORTAC 130 radial at or above 6000 feet; then via (transition) or (assigned route). Salisbury Transition—Via Solberg VORTAC 237 radial and Woodstown VOR 360 radial and Woodstown VOR 180 radial to J79.

PARK RIDGE ONE DEPARTURE

NOTE.—1. Will be approved only if both New York ARTCC and LaGuardia Tower radar is operating. 2. May be filed only by westbound turboprop/turbojet type aircraft.

Take-off Runway 4, 22, 31. Maintain runway heading for vector. Take-off Runway 13. Turn right after departure, heading 160, climb to 1500′ or for 45 seconds af passing airport boundary, whichever occurs first; tl turn left heading 040 for vector. Vector to Wilkes-Ba VORTAC 122 radial; then via Wilkes-Barre VORT 122 radial to Wilkes-Barre VORTAC. Cross Carmel V 237 radial at 4000 feet; cross Carmel VOR 250 radial a above 6000 feet; then via (transition) or (assigned rout Erie Transition—Via Wilkes-Barre VORTAC 309 ra to Huguenot VORTAC 291 radial; J70 to Erie VORT. Buffalo Transition—Via Wilkes-Barre VORTAC radial and Allentown VORTAC 352 radial to J95; J9 Buffalo VORTAC.

Concurrently, cancel the Bayville Three, Echo L Two, and White House Four Departures.

OHIO

Youngstown Mun Arpt.

In narrative form only

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood C VORTAC 302 radial. Cross Akron VORTAC 084 ra at 3000 or above. Then via Ellwood City VORTAC radial to the Ellwood City VORTAC. Cross Ellw City VORTAC (as assigned by ATC), then via assig route.

Departing aircraft shall be established on the Youn town VOR 197 radial within 10 miles of the Youngsto VOR.

Burke Lakefront Airport, Cleveland

Effective Dec. 10, 1964

CRIB TWO DEPARTURE

Via Akron Vortac 323 radial and Chardon Vortac radial to Crib Intersection. Then via transition or signed route. Intercept Chardon Vortac 285 radial 2000 feet Cross Crib Intersection at minimum of 3 feet. Cleveland Transition—Via the Cleveland Vor 027 radial to Cleveland Vortac.

Concurrently cancel the Crib One Departure.

RHODE ISLAND

T. F. Green Arpt., Providence

In narrative form only

WARWICK ONE DEPARTURE

Takeoff Rnwy 5L/R–34—turn right to 160 heading soon as practicable after leaving 500′. Climb on 160 he ing to intercept Quonset Pt. VOR 038 radial. Take Rnwy 16—Maintain rnwy heading to intercept Quon Pt. VOR 038 radial. Takeoff Rnrwy 23L/R—Turn l to 090 heading as soon as practicable after leaving 5 Climb on 090 heading to intercept Quonset Pt. VOR radial. Radar vector to Providence VOR 132 radial Quonset Pt. VOR 038 radial to Quonset Pt. VOR the via Quonset Pt. VOR 218 radial to V–46. Cross Quon Pt. VOR at 5000′ or below. Cross Norwich VORTAC 1 radial at 7000′. Cross Hampton VORTAC 082 radial assigned by ATC) then via (assigned route).

STERLING TWO DEPARTURE

Takeoff Runway 34–5L/R—turn left to 250 heading soon as practicable after leaving 500 feet. Climb on 2

eading to intercept Providence VOR 284 radial. Takeoff unway 23L/R–16—turn right to 340 heading as soon as racticable after leaving 500 feet. Climb on 340 heading o intercept Providence VOR 284 radial. Radar vector o Providence VOR 284 radial thence via Providence VOR 84 radial to Sterling VHF intersection. Cross Sterling HF intersection at / as assigned by ATC/then via/transition/or/assigned/route. Riverhead Transition via V16/879.

UTAH

Salt Lake City Mun No. 1 Arpt

Effective Dec. 10, 1964

PROVO ONE DEPARTURE

Via the Salt Lake 160 and Provo 341 radials to Provo. hen via (transition) or (assigned route). Delta Transition: via the Provo 188 and Delta 008 radials to Delta. ilford transition: via the Provo 188 and Milford 007 dials to Milford. Bryce Canyon transition: via the rovo 170 and Bryce Canyon 351 radials to Bryce Canon. Note: This SID requires a minimum climb rate of 5' per mile.

Change Stansbury Two Departure to read Stansbury hree Departure and revise Delta transition as follows: elta transition: turn left via Malad 162 and Delta 348 dials to Delta. Cross Stansbury Intersection at (minimum 10,500').

WYOMING

Casper Air Terminal

Effective Nov 12, 1964

Cancel Buckman Two Departure.

COLORADO

Stapleton Airfield, Denver

Effective Nov. 12, 1964

LONGMONT TWO DEPARTURE

Via Denver 320 and Kremmling 067 radials to Kremmng. Cross Longmont Intersection/Denver 21 mile DME westbound at or above 15,600'. NOTE: This SID requires a minimum climb rate of 430' per mile.

GOLDEN TWO DEPARTURE

Via Denver 243 and Grand Junction 050 radials to rand Junction. Cross Denver 22 mile DME fix at or ove 9,500'. Cross Denver 35 mile DME fix at or above ,000'. NOTE: This SID requires a minimum climb te of 430' per mile.

SUPERIOR TWO DEPARTURE

Via Denver 263 and Kremmling 082 radials to Kremmg. Cross Superior Intersection/Denver 23 mile DME x at or above 13,400'. NOTE: This SID requires a inimum climb rate of 430' per mile.

GUNNISON TWO DEPARTURE

Via Denver 193 radial to intercept Kiowa 232 and unnison 050 radials to Gunnison. Cross Silo Intersecon at or above 11,000'. Cross Lake George Intersecon/Denver 50 mile DME fix at or above 13,200'.

Concurrently cancel Longmont One/Golden One/Superior One Departures.

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport ,Tucson

California

Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport, Monterey
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan nIt'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

ILLINOIS

CHICAGO, O'HARE "ORD" VORTAC SHUTDOWN

About Dec 7, TACAN portion of VORTAC will be shutdown for channel change to 86. About Dec 10, VOR will be shutdown for freq change to 113.9mc. Complete facility will resume opern about Dec 15. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Airways	MEA	MAA
V-217, 191	ORD VOR to Taylor Int	None		
V-191	Taylor Int to Horlick Int	None		
V-172	ORD VOR to Musky Int	None		
V-53 128, 144	ORD VOR to City Int	None		
V-84, 172, 855, 880	Malta Int to ORD VOR	Malta Int to tmpry ORD Int via DPA VOR 280 rad to DPA VOR thence via DPA 073 rad to tmpry ORD Int.	2,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
Bartlett Int	JOT VORTAC 006 rad and OBK VORTAC 228 rad	2,200
ORD VORTAC	Tmpry ORD Int DPA VOR 073 rad API VOR 035 rad OBK VORTAC 170 rad	2,500

INDIANA

FORT WAYNE "FWA" VORTAC SHUTDOWN

About Dec. 7, TACAN portion of VORTAC will be shutdown for channel change to 125. About Dec 10, VOR will be shutdown for freq change to 117.8mc. Complete facility will resume opern aprxly Dec 15. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MA
V-3[illegible], 55W, 144, 177:	MOI VOR to FWA VOR	MOI VOR to tmpry FWA Int via MOI VOR 099 rad	4,000	17,
V-65	GSH VOR to FWA VOR	GSH VOR to tmpry FWA Int via GSH VOR 131 rad	3,000	17,
V-277	Millersburg Int to FWA VOR	Millersburg Int to tmpry FWA Int via OLK VOR 341 rad to OLK VOR thence via OLK VOR 138 rad	2,600	17,
V-221	LFD VOR to FWA VOR	LFD VOR to Garrett Int via LFD VOR 198 rad Garrett Int via FWA RBn 022 brng from to tmpry FWA Int	4,000	17,
V-11 11E	Hudson Int to FWA VOR	Hudson Int to tmpry FWA Int via SVM VOR 223 rad and FWA RBn 040 brg from	5,000	17,5
V96	McClure Int to FWA VOR	McClure Int to tmpry FWA Int via VWV VOR 251 rad	5,500	17,5
V-38 144, 853	FDY VOR to FWA VOR	FDY VOR to tmpry FWA Int via FDY 274 rad	4,100	17,5
V277	ROD VOR to FWA VOR	ROD VOR to tmpry FWA Int via ROD VOR 310 rad	3,000	17,5

Continued on next pa

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-55E	DAY VOR to FWA VOR	DAY VOR to tmpry FWA Int via DAY VOR 344 rad and ROD VOR 310 rad	3,000	17,500
I-65	DAY VOR to FWA VOR	DAY VOR to tmpry FWA Int via DAY VOR 329 rad	4,200	17,500
I-11,	Fairmount Int to FWA VOR	Fairmount Int to tmpry FWA Int fia MZZ VOR 036 rad	2,600	17,500
71W, 95,	Greentown Int to FWA VOR	Greentown Int to tmpry FWA Int via 053 brg from OKK RBn and 233 brg from FWA RBn	3,000	17,500

Changeover Point: Midpoint

Existing Reporting Points	Temporary Reporting Points	MRA
WA VOR	MZZ VOR 036 rad and OLK VOR 138 rad	2,600
hitely Int	MOI VOR 099 rad and OLK VOR 184 rad	4,000
ii'ersburg Int	OLK VOR 341 rad and GSH VOR 092 rad	2,600
arrett Int	LFD VOR 198 rad and GSH VOR 108 rad	4,000
ioneer Int	SVM VOR 223 rad and VMV VOR 290 rad	5,000
dgerton Int	FWA RBn 040 brg from and VWV VOR 275 rad	5,000
ockford Int	ROD VOR 310 rad and FDY VOR 251 rad	3,000
oldwater Int	DAY VOR 329 rad and FDY VOR 251 rad	4,200
andess Int	MZZ VOR 036 rad and OKK VOR 072 rad	2,600
ock Creek Int	MZZ VOR 036 rad and OLK VOR 170 rad	2,600
ortaine Int	OKK RBn 053 brg from and OLK VOR 191 rad	2,200

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-64	BDF VOR to FWA VOR	BDF VOR to FWA Rbn via BDF 088 rad and FWA Rbn 275 brg	180	450
J-30	JOT VOR to FWA VOR	JOT VOR to FWA Rbn via JOT 101 rad and FWA Rbn 285 brg	180	450
J-64	EWC VOR to FWA VOR	EWC VOR to FWA Rbn via EWC 279 rad and FDY 094 rad to FDY, thence via FDY 271 Rad and FWA Rbn 090 brg to FWA Rbn	180	450
J-30	APE VOR to FWA VOR	APE VOR to FWA Rbn via APE 294 rad and FWA Rbn 111 brg	180	450

Existing Reporting Points	Substitute Reporting Points	MRA
WA VOR	FWA Rbn	180

MAINE

KENNEBUNK "ENE" VOR SHUTDOWN

About Dec 10 VOR will be shutdown until aprxly Dec 23 for freq change to 117.1. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V3	Ipswich Int to AUG VOR	Ipswich Int to PSM VOR via PSM VOR 203 rad PSM 044 rad to AUG VOR 232 rad to AUG VOR	2,000	17,500
V108	Auburn Int to ENE VOR	Auburn Int to PSM VOR via PSM 268 rad	2,300	17,500
V39	CON VOR to ENE VOR	CON VOR 090 rad to ENE Int	3,100	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ENE VOR	ENE Int PSM VOR 044 rad and CON VOR 090 rad	3,100
South Portland Int	None	
Hiram Int	CON VOR 057 rad and 142° brg from SWN RBN	4,500
Laconia Int	CON VOR 027 rad and LEB VOR 120 rad	6,000

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J77	BOS VOR to BGR VOR	BOS VOR via BOS 029 rad to BGR VOR 241 rad BGR VOR 241 rad to BGR VOR	18,000	45,000
J65	Int JFK 061 rad and ENE 229 rad to ENE VOR	None		

MISSOURI

ST. LOUIS "STL" VORTAC SHUTDOWN

About Dec 7 VOR portion of VORTAC will be shutdown until aprxly Dec 11 for dual monitor installation. For substitute route structure during shutdown use the following:

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-4-52	TOY VOR to STL VOR	TOY VOR to Tmpry STL Int via TOY VOR 282 rad	2,000	10,000
V-4, 218 804	HLV VOR to STL VOR	HLV VOR to tmpry STL Int via HLV VOR 095 rad	5,000	17,500
V-14, 218 804	VLA VOR to STL VOR	VLA VOR to tmpry STL via VLA VOR 254 rad	5,500	17,500
V-9	CAP VOR to STL VOR	CAP VOR to tmpry STL Int via CAP VOR 209 rad	5,500	17,500
V-9	FAM VOR to STL VOR	FAM VOR to tmpry STL Int via FAM VOR 346 rad	4,000	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-858, 14	VIH VOR to STL VOR	VIH VOR to tmpry STL Int via VIH VOR 047 rad	4,500	17,500
V-426..	RCW VOR to STL VOR	RCW VOR to tmpry STL Int via RCW VOR 018 rad	2,500	17,500
V-4N, 210N	HLV VOR to STL VOR	None		
V-9W	CAP VOR to STL VOR	None		
V-9W	FAM VOR to STL VOR	None		
V-14N	VIH VOR to STL VOR	None		
V-14S	VIH VOR to STL VOR	None		
V-14N.	VLA VOR to STL VOR	None		
V-52...	UIN VOR to STL VOR	UIN VOR to tmpry STL Int via UIN VOR 142 rad	4,500	17,500
V-52N.	UIN VOR to STL VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
STL VORTAC	Tmpry STL Int TOY VOR 282 rad and MTS VOR 028 rad	2,000
Monroe Int	MTS VOR 321 rad and HLV VOR 095 rad	4,500
Hardin Int	REA VOR 063 rad and UIN VOR 142 rad	3,000
Fidelity Int	CAP VOR 209 rad and TOY VOR 321 rad	3,000
Gillespie Int	None	
Arnold Int	TOY VOR 220 rad and FAM VOR 346 rad	2,600
Godfrey Int	None	
Prairie Int	TOY VOR 007 rad and VLA VOR 254 rad	2,500
Academy Int	TOY VOR 311 rad and VLA VOR 254 rad	3,000
Crystal City Int	RCW VOR 081 rad and FAM VOR 346 rad	2,600
Imperial Int	TOY VOR 230 rad and FAM VOR 346 rad	2,600
Lemay Int	RCW VOR 043 rad and FAM VOR 346 rad	2,600
Meramec Int	TOY VOR 242 rad and FAM VOR 346 rad	2,600
Washington Int	REA VOR 106 rad and VIH VOR 047 rad	2,600
Howell Int	MTS VOR 272 rad and VIH VOR 047 rad	3,000
Winfield Int	UIN VOR 142 rad and MTS VOR 001 rad	3,000
Lakeside Int	FAM VOR 003 rad and MTS VOR 086 rad	2,100
St. Paul Int	HLV VOR 095 rad and MTS VOR 334 rad	4,500
Dorsey Int	None	
Park Int	RCW VOR 040 rad and MTS VOR 086 rad	2,1

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MA
J-8....	SGF VORTAC to STL VORTAC	SGF VORTAC to SIL Int via SGF VORTAC 051 rad and VIH VORTAC 233 rad to VIH VORTAC thence via VIH VOR-TAC 047 rad to STL Int	FL180	FL4
J-8....	STL VORTAC to LOU VORTAC	STL Int to LOU VORTAC via ENL VOR 289 rad to ENL VLR thence via ENL VOR 091 rad and LOU VORTAC 277 rad to LOU VORTAC	FL180	FL4
J-24...	MKC VORTAC to STL VORTAC	MKC VORTAC to STL Int via MKC VORTAC 094 rad and REA VOR 277 rad to REA VOR thence via REA VOR 078 rad to STL Int	FL180	FL4
J-24...	STL VORTAC to IND VORTAC	STL Int to IND VORTAC via VLA VOR 254 rad to VLA VOR thence via VLA VOR 067 rad and IND VORTAC 252 rad to IND VORTAC	FL180	FL4
J-101..	LIT VORTAC to STL VORTAC	LIT VORRAC to STL Int via LIT VORTAC 021 rad and FAM VORTAC 203 rad to FAM VOR-TAC thence via FAM VORTAC 346 rad to STL Int	FL180	FL4
J-35-101	STL VORTAC to CAP VOR	STL Int to CAP VOR via CAP VOR 209 rad	FL180	FL4
J-35...	MEM VORTAC to STL VORTAC	MEM VORTAC to STL Int via MEM VORTAC 349 rad and FAM VORTAC 169 rad to FAM VOR-TAC thence via FAM VORTAC 346 rad to STL Int	FL180	FL4
J-45...	BNA VORTAC to STL VORTAC	BNA VORTAC to STL Int via BNA VORTAC 317 rad and ENL VOR 134 rad to ENL VOR thence via ENL VOR 289 rad to STL Int	FL180	FL45
J-45...	STL VORTAC to DSM VORTAC	STL Int to DSM VORTAC via REA VOR 078 rad to REA thence via REA VOR 325 rad and DSM VORTAC 142 rad to DSM VORTAC	FL180	FL45

Continued on next pag

Existing Reporting Points	Temporary Reporting Points	MRA
FL VORTAC	STL Int REA VOR 078 rad, VIH VORTAC 047 rad, CAP VOR 209 rad FAM VORTAC 346 rad VLA VOR 254 rad ENL VOR 289 rad	FL180

NEBRASKA

NORTH PLATTE "LBF" VOR SHUTDOWN

About Dec 7, VOR will be shut down until aprxly Dec 10 for ctl unit replacement. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-6	SNY VOR to LBF VOR	SNY VOR 076° rad to LBF RBN 258° brg "from", thence LBF RBN 258° brg "from" to LBF RBN	6,200	17,500
	GRI VOR to LBF VOR	GRI VOR 263° rad to LBF RBN 081° brg "from" thence LBF RBN 081° brg "from" to LBF RBN	5,000	17,500
J-86, J-172	Holyoke Int to LBF VOR	LBF RBN 231° brg "from" to LBF RBN	6,000	17,500
J-148	HCT VOR to LBF VOR	HCT VOR 003° rad to LBF RBN	4,500	17,500
	ONL VOR to LBF VOR	ONL VOR 217° rad to LBF RBN 033° brg "from" thence LBF RBN 033° rad "from" to LBF RBN	5,400	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
LBF VOR	LBF RBn	2,800

OMAHA "OMA" VOR SHUTDOWN

About Dec 15, VORTAC will be shut down until aprxly Dec 19 for dual monitor changeout. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-8	DSM VOR to OMA VOR	DSM VOR to Tmpry OMA Int via DSM VOR 254 rad	8,000	17,500
	GRI VOR to OMA VOR	None		
J-81	OFK VOR to OMA VOR	OFK VOR to Tmpry OMA Int via OFK VOR 112 rad	8,000	17,500
J-86	SUX VOR to OMA VOR	SUX VOR to Tmpry OMA Int via SUX VOR 151 rad	5,000	17,500
J-86, J-88	DSM VOR to OMA	None		
J-86	Emerson Int to OMA	None		
J-86W	SUX VOR to OMA VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
OMA VOR	Tmpry OMA Int SUX VOR 151 rad and RAY VOR 063 rad	5,000
Mead Int	None	
Richfield Int	None	
Touhy Int	None	
Blair Int	None	
Washington Int	EOL VOR 242 rad and SUX VOR 165 rad	4,000
Avoca Int	EOL VOR 071 rad and SUX VOR 128 rad	4,500
Carson Int	EOL VOR 133 rad and DSM VOR 254 rad	5,000
Elliott Int	None	
Emerson Int	EOL VOR 148 rad and PWE VOR 030 rad	3,000
Eagle Int	PWE VOR 325 rad and EOL VOR 210 rad	3,500

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J-21	MSP VORTAC to OMA VORTAC	MSP VORTAC 189 rad and FOD VOR 007 rad to FOD VOR. Thence via FOD VOR 210 rad to Tmpry OMA Int	FL 180	FL 450
J-41	MKC VORTAC to OMA VORTAC	MKC VORTAC to Tmpry OMA Int via MKC VORTAC 327 rad	FL 180	FL 450
J-21	ICT VOR to OMA VORTAC	ICT VOR 012 rad to PWE VORTAC via PWE VOR 193 rad. Thence via PWE VOR 012 rad to Tmpry OMA Int	FL 180	FL 450

Existing Reporting Points	Temporary Reporting Point	MRA
OMA VORTAC	Tmpry OMA Int MKC VORTAC 327 rad and PWE VORTAC 012 rad and DSM VORTAC 254 rad	FL 180

NEW JERSEY

MILLVILLE, "MIV" VOR SHUTDOWN

About Dec 10, VOR will be shut down until aprxly Dec 23 for freq change to 115.2 mc. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Reporting Points	Temporary Reporting Points	MRA
V16	CYN to ENO	CYN V16 to Millville Int V16 to ENO	1,500
V148	CYN to BAL	None	
V238	OOD to ACY	OOD V238 to Millville Int V238 to ACY	1,500
V478	MIV to BAL	None	
V986	ENO to ACY	None	

Existing Reporting Points	Temporary Reporting Points	MRA
Blackbird Int	None	
Richard Int	CYN 234 rad and ACY 296 rad	1,500
MIV VOR	MIV Int ACY 296 rad and ENO 063 rad	1,600

NEW YORK

BUFFALO "BUF" VORTAC SHUTDOWN

VORTAC freq interference is affecting the following jet routes based on BUF VORTAC until the frequency of BUF VORTAC is changed. For substitute route structure use the following:

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J16/94	BUF VORTAC to ALB VORTAC	BUF VORTAC to SYR VORTAC via BUF VORTAC 090 rad and SYR VORTAC 274 rad thence to ALB VORTAC via SYR VORTAC 115 rad and ALB VORTAC 294 rad	24,000	41,000
		Changeover Point—30 NM E of BUF VORTAC—78 NM W of SYR VORTAC		
J61/100	BUF VORTAC to PSB VORTAC	BUF VORTAC to PSB VORTAC via BUF VORTAC 174 rad and PSB TAC 174 rad and PSB VORTAC 354 rad	24,000	41,000
		Changeover Point—28 NM S of BUF VORTAC—104 NM N of PSB VORTAC		
J95	BUF VORTAC to HUO VORTAC	BUF VORTAC to HUO VORTAC via BUF VORTAC 123 rad and HUO VORTAC 309 rad	24,000	41,000
		Changeover Point—37 NM SE of BUF VORTAC—162 NM NW of HUO VORTAC		

PENNSYLVANIA

WEST CHESTER "ESR" VOR SHUTDOWN

About Jan 7, VOR will be shutdown until aprxly Jan 18 for freq/channel change to 113.1mc 79. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-3/875	SBJ VORTAC to EMI VORTC	None		
V-12	HAR VORTAC to ESR VORTAC	HAR VORTAC 111 rad to int LRP VOR 291 rad LRP VOR, LRP VOR 121 rad to tmpry ESR Int	2,700	17,500
V-12	ESR VORTAC to Echelon Int.	None		
V-29	PTW VOR to ESR VORTAC	PTW VOR V-29 to tmpry ESR Int.	2,400	17,500
V-29	ESR VORTAC to EWT VORTAC	Tmpry ESR Int V-29 to EWT VORTAC	2,000	17,500
V-170/228	Reinholds Int to ESR VORTAC	None		
V-271/228	ESR VORTAC to OOD VORTAC	None		

NOTE: V-147 unusable from tmpry Ardmore int to int V-12

Existing Reporting Points	Temporary Reporting Points	Mi
ESR VORTAC	Tmpry ESR Int PTW VOR 205 rad and LRP VOR 121 rad	2,
Hoopes Int	None	
Warrington Int	SBJ VORTAC 237 rad and PTW VOR 095 rad	2
Norris Int	None	
Gap Int	None	
Coatesville Int	None	
Elkton Int	None	
Bainbridge Int	None	
Honeybrook Int	None	
Ardmore Int	ABE VORTAC 183 rad and PTW VOR 152 rad	2,
Darby Int	OOD VOR 335 rad and PHL ILS Lczr	1
Fraser Int	PTW VOR 167 rad and SJB VORTAC 237 rad	3
Echelon Int	OOD VOR 052 rad and MIV VOR 360 rad	2
Plowville Int	PTW VOR 284 rad and LRP VOR 074 rad	5,

WILKES BARRE "AVP" VOR SHUTDOWN

About Feb 4, VORTAC will be shut down until aprxly Feb 15 for fi channel change to 109.6 mc/33. For substitute route structure du shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	Mi
V—36	SAX VOR to ELM VOR	None		
V-116-288	SAX VOR to SFK VOR	None		
V-58-	POU VOR to TOH VOR or IPT VOR	Via V-146 tio intercept VOR 048 rad to TOH, thence via V-188 IPT VOR	4,500	17
V-163	STW VOR to Harmony int	None		
V-29	ABE VOR to BGM VOR	None		
V-128	SFK VOR to HUO VOR	None		

Existing Reporting Points	Temporary Reporting Points	Mi
Pocono Int	ABE VOR 008 rad and TOH VOR 141 rad or TVE VOR 321 rad	3,
Montrose Int	BGM VOR 155 rad and DNY VOR 246 rad or IPT VOR 070 rad	4,
Scranton Int	None	
Lopez Int	None	
Thompson Int	None	
Rowlands Int	HUO VOR 314 rad and STW VOR 008 rad	4.

VIRGINIA

OPE SHELL "HPW" VOR SHUTDOWN

About Dec 10, VORTAC will be shut down until aprxly Dec 23 for freq/channel change to 112.0mc/57. For substitute route structure during shutdown during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-288..	RIC VOR to HPW VORTAC	RIC VOR to HPW Int via RIC VOR 143 rad	1,700	17,500
	HPW VORTAC to Deep Creek Int	HPW Int to Deep Creek Int via RIC VOR 142 rad	4,000	17,500
V-188..	HPW VORTAC to FKN VOR	HPW Int to FKN VOR via FKN VOR 358 rad	2,500	17,500
V213...	HPW VORTAC to RMT VOR	None		
	HPW VORTAC to Tappahannock Int	None		
V-454..	HPW VOR to LVL VOR	HPW Int to LVL VOR via LVL VOR 656 rad	2,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
HPW VORTAC	Tmpry HPW Int: RIC VOR 143 rad and HCM VOR 257 rad	1,700
Whitehouse Int	None	
Meadow Int	None	
Summers Int	None	
New Kent Int	RIC VOR 102 rad and FKN VOR 004 rad	2,500
Williamsburg Int	ORF VORTAC 322 rad and HCM VOR 202 rad	1,600
Driver Int	RIC VOR 042 rad and FKN VOR 068 rad	4,000
Waverly Int	FKN VOR 358 rad and CCV VORTAC 257 rad	2,500
Emporia Int	FKN VOR 284 rad and RMT VOR 024 rad	2,000
Petersburg Int	RIC VOR 220 rad and FAX VORTAC 140 rad	1,700

PULASKI "PSK" VOR SHUTDOWN

About Dec 10, VORTAC will be shut down until aprxly Dec 23 for freq/channel change to 115.9mc/106. For substitute route structure during shutdown, use flwg:

Low Altitude Airways

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	FML VOR to PSK VOR	Unusable		
	PSK VOR to EKN VOR	020 Brg from PK LFR to intercept 199 rad EKN to EKN	8,000	17,500
V-16...	HMV VOR to ROA VOR	HMV 062 rad and ROA 248 rad	7,000	17,500
V-168..	BLA VOR to PSK VOR	Unusable		
V-378..	HKY VOR to PSK VOR	Unusable		
V-46...	BLF VOR to GSO VOR	BLF 123 rad to intercept 303 Brg to PK LFR to PSK; 148 Brg from PK LFR to intercept GSO 337 rad to GSO	6,000	17,500
V-80...	BKW VOR to PSK VOR	BKW 157 rad to tmpry PSK Int	6,000	17,500
V128..	PSK VOR to SBV VOR	098 Brg from PK LFR to intercept SBV 302 rad to SBV	5,000	17,500

Existing Reporting Point	Temporary Reporting Point	MEA	MAA
PSK VORTAC	ROA 248 rad and BKW 157 rad	6,000	17,500

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J-63...	AGC to SPA.....	195 rad AGC to intercept 013 brg to PK LFR to thence 206 brg from PK LFR to intercept PSK; 026 rad SPA to SPA	FL180	FL450
	CRW to RDU.....	149 rad CRW to intercept 313 rad RDU to RDU	FL180	FL450
J-22...	TYS to GVE.....	064 rad TYS to intercept 252 rad GVE to GVE	FL180	FL450

WEST VIRGINIA

MARTINSBURG "MRB" VOR SHUTDOWN

About Jan 7, VORTAC will be shut down until aprxly Jan 18 for freq/channel change to 112.1mc/58. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-581..	THS VOR to MRB VOR	THS VOR to MRB Int. via THS VOR 179 rad	4,000	17,500
V-8....	Flintstone Int to MRB VOR	Flintstone Int. to MRB LFR via HRN VOR 315 rad	7,000	17,500
V-8....	MRB VOR to DCA VOR	Int of HRN VOR 022 rad and DCA VOR 328 rad via MRB LFR 114 brg thence DCA VOR via via DCA VOR 328 rad	3,000	17,500
V-44...	MGW VOR to MRB VOR	MGW VOR to MRB Int via MGW 101 rad	13,500	17,500
V-44...	MRB VOR to Lisbon Int	MRB Int to Lisbon Int via BAL VOR 291 rad	4,000	17,500
V-188..	ESL VOR to MRB VOR	ESL VOR to MRB Int via via ESL VOR 086 rad	4,000	17,500
V-188..	MRB VOR to EMI VOR	MRB Int to EMI VOR via EMI VOR 268 rad	4,000	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–251	FRR VOR to MRB VOR	FRR VOR to Int of FRR VOR 055 rad and EMI VOR 305 rad via FRR VOR 055 rad	3,000	17,500
V–251	MRB VOR to Hanover Int	Int of FRR VOR 055 rad and EMI VOR 305 rad to Hanover Int viaLRP VOR 247 rad	5,000	17,500

Existing Reporting Points	Temporary Reporting Points	MR
MRB VOR	MRB LFR	4,(
MRB VOR	BAL VOR 291 rad and FRR VOR 049 rad	4,(
MRB VOR	MGW VOR 101 rad and FRR VOR 049 rad	13,!
MRB VOR	FRR VOR 049 rad and THS VOR 179 rad	4,(
Flintstone Int	Flintstone Int HRN VOR VOR 315 rad and GRV VOR 092 rad	7,(

VISUAL NAVIGATION CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

ABERDEEN

38th Edition, August 20, 1964

Delete Madison arpt 44°01'N, 97°03'W. Delete Nicholas arpt 45°37'N, 101°30'W. Add obstn 2029' MSL 43°56'59''N, 96°54'36''. Add obstn 2040' MSL 44°23'-42''N, 97°00'37''W. In northern border change Bismarck VOR freq 115.7 to 116.5.

ALBANY

53rd Edition, July 23, 1964

Delete Dades arpt 43°28'N, 75°12'W. Delete East Greenbush arpt 42°34'N, 73°43'W. Add V196 airway Utica to Plattsburgh via Utica 016°T & Plattsburgh 336°T. Add obstn 1344' MSL 43°33'41''N, 72°17'14''W. Add obstn 2161' MSL 43°12'29''N, 72°09'40''W. Correct Schenectady Co ctl twr freq 321 to 321.1. Change Chester VOR freq from 108.6 to 117.3. Change Utica VOR freq from 112.0 to 113.9. Change Watertown VOR freq from 110.6 to 109.8. Change Binghamton VORTAC freq from 114.1 ch 88 to 114.3 ch 90. Change Griffis (AF) VOR freq 111.4 to 112.5. In southern border change Clermont VOR freq 114.3 to 117.6.

ALBUQUERQUE

53rd Edition, August 20, 1964

Add obstn 4100' MSL 34°31'00''N, 102°17'00''W. Add obstn 5012' MSL 35°08'03''N, 103°41'52''W. Delete Bacaville VOR 34°35'N, 106°50'W. Delete Dalhart RBn 36°01'N, 102°03'W. In eastern border correct Borger VOR ident BDG to BGD.

AROOSTOOK

41st Edition, April 30, 1964

Delete Green arpt 46°02'N, 68°16'W. Realign Red 9 airway direct from Montmorency RBn to Bagotville RBn. Add obstn 740' MSL 46°09'00''N, 70°12'17''W. Add obstn 525' MSL 46°10'45''N, 71°20'00''W. Add obstn 625' MSL 46°52'50''N, 71°19'35''W. Add obstn 349' MSL 47°00'00''N, 70°31'00''W. Add obstn 433' MSL 47°16'40''N, 70°12'00''W. Add obstn 593' MSL 46°-36'05''N, 65°55'50''W. Add Burtts RBn freq 350, ident LI, class MHW 46°03'52''N, 66°52'13''W. Add Charlo (Pvt) RBn freq 203, ident CL, class HW 47°59'N, 66°20'W. Extend Loring AFB Military Climb Corridor R-3002 1 mi S & 6 mi N. Realign Fredericton LFR W leg from 103°M to 096° M.

AUSTIN

58th Edition, November 12, 1964

No hazardous changes.

BEAUMONT

52nd Edition, September 17, 1964

Delete Saltzman arpt 29°57'N, 92°27'W. Add obstn 385' MSL 30°08'19''N, 94°38'26''W. Add obstn 351' MSL 30°26'18''N, 93°47'16''W. Add obstn 329' MSL 30°35'47''N, 91°31'47'W. Add obstn 598' MSL 30°39'-57''N, 92°08'14''W. Add obstn 347' MSL 31°03'33''N, 92°08'38''W. Add obstn 525' MSL 31°33'17''N, 92°-34'04''W. Add obstn 440' MSL 30°01'55''N, 94°59'37''W. Add 2 obstns 467' MSL 29°59'20''N, 90°27'45''W & 30°00'35''N, 90°27'22''W. Change obstn 1044' MSL to 1244' MSL 30°02'38''N, 92°22'17''W. Delete Lake Charles ctl twr freq 109.1. Delete Esler RBn 31°19'N, 92°14'W. Add Fort Polk, La. ctl zone 5 mi radius with extsns 8 mi SE & 8 mi NW of RBn. Add Navasota VOR freq 109.6, ident TNV, class BVOR, M.V 8°E 30°17'20''N, 96°03'30''W.

BELLINGHAM

50th Edition, December 10, 1964

No hazardous changes.

BIRMINGHAM

58th Edition, October 15, 1964

Delete River arpt 33°49'N, 88°19'W. Delete Lake Purdy Arpt 33°29'N, 86°37'W. Change Maxwell (AF) VOR freq 116.0 to 110.2. Extend Atlanta, Ga. transition area to include additional airspace aprxly 5 mi SE.

BOISE
40th Edition, May 28, 1964

Delete Dewitt Place arpt 43°28'N, 120°02'W. Delete Payette FM 44°09'N, 116°55'. Delete Mountain Home FM 43°12'N, 115°42'W.

BOSTON
54th Edition, September 17, 1964

Change Kennebunk VOR freq 117.4 to 117.1. Revise ctl area 1141 Boston, Mass. RBn to Yarmouth, Nova Scotia, Canada, LFR. Extend W-104 aprxly 5 mi NW & 8 mi E.

BURLINGTON
43rd Edition, November 12, 1964

Extend V196 airway from Utica to Plattsburgh via Utica 016° & Plattsburgh 236°T. Extend V447 airway from Montpelier, Vt. to Sherbrook, P.Q. Canada via the int of Montpelier 020°T & Sherbrook 217°T. Montreal ctl area extended E & NE to join Quebec ctl area.

BUTTE
42nd Edition, July 23, 1964

Delete Pretty Prairie (USFS) arpt 47°35'N, 112°55'W. Delete Seeley Lake (USFS) arpt 47°14'N, 113°34'W. Change Helena VOR freq 117.9 to 117.7. Add Lewistown RBn freq 353, ident LWT, class H, 47°04'06"N, 109°-32'15"W.

CASPER
48th Edition, October 15, 1964

No hazardous changes.

CHARLOTTE SECTIONAL CHART
55th Edition, October 15, 1964

Add obstn 861' MSL 35°07'24"N, 79°22'54"W. Add obstn 1057' MSL 35°18'36"N, 80°22'31"W. Add obstn 1250' MSL 34°03'00"N, 78°04'56"W. Twr comsnd at Owens arpt freqs 126.2 241.0. Change Florence VOR freq 115.5 to VORTAC freq 115.2 ch 99. Add Tocca, Ga. transition area 5 mi W & 8 mi E of the 360°T radial of Tocca, Ga. VOR extending from the VOR to 12 mi N. Add obstn 913' MSL 35°21'24"N, 79°46'42"W.

CHATTANOOGA
54th Edition, August 20, 1964

Delete Humphreys Co arpt 36°05'N, 87°51'W. Delete Memphis Flying Service arpt 35°03'N, 89°54'W. Delete Mountain View arpt 34°47'N, 84°59'W. Add obstn 697' MSL 34°57'25"N, 89°46'45"W. Change Gadsden VOR freq 112.0 to 112.3.

CHEYENNE
51st Edition, December 10, 1964

No hazardous changes.

CHICAGO
59th Edition, December 10, 1964

No hazardous changes.

CINCINNATI
58th Edition, August 20, 1964

Delete Howell Bros arpt 39°36'N, 85°26'W. Dele Madison arpt 38°49'N, 85°26'W. Delete Ohio Oil (arpt 39°01'N, 87°37'W. Add obstn 996' MSL 39°4 42"N, 86°23'07"W. Add obstn 1549 'MSL 39°14'36" 87°23'07"W. Change Greater Cincinnati ctl twr fr 257.8 to 240.9. Change Belleview RBn ident BVX BL. Change Louisville RBn name to Standiford. Chan Decatur VOR freq 109.4 to 110.6. Change Patterson V(freq 117.1 to 111.6. Add obstn 920' MSL 38°42'56" 89°57'26"W. Add obstn 1009' MSL 39°47'28"N, 8 19'37"W. Add obstn 1260' MSL 40°04'42"N, 84°3 51"W. Add obstn 895' MSL 39°31'03"N, 84°24'32" Add obstn 1237' MSL 40°06'51"N, 85°22'02"W. A obstn 853' MSL 38°14'40"N, 89°24'58"W. In weste border change Quincy VORTAC freq 115.6 ch 103 to 11 ch 78.

CLEVELAND
59th Edition, November 12, 1964.

No hazardous changes.

CORPUS CHRISTI
53rd Edition, July 23, 1964

Realign V68 airway direct from Corpus Christi, Te to Harlingen, Tex. Realign V163 airway from Brow ville, Tex. to Corpus Christi, Tex. via int of Brow ville 347°T & Corpus Christi 191°T. Revise R-6301 clear V163. Delete Elliot arpt 26°16'N, 97°44'W. A obstn 627' MSL 27°45'12"N, 98°08'21"W. Chan Laredo AFB ctl twr freq 118.5 to 126.2. Revoke Ali & Corpus Christi ctl area. Designate Corpus Chri transition area by shifting former ctl airspace 5 to mi E. Add NAS CORPUS CHRISTI ctl zone 5 mi radi of arpt with extsns SE & SW.

DALLAS
59th Edition, July 23, 1964

Delete Block Ranch arpt 32°19'N, 97°14'W. Dele Diamond M Ranch arpt 32°41'N, 101°05'W. Add V airway from Lubbock to Abilene via the Lubbock 12 & Abilene 306°T. Add obstn 1780' MSL 33°36'35" 99°36'46"W. Add obstn 3570' MSL 33°53'25"N, 101 51'08"W. Change Abilene VORTAC freq 112.6 ch 73 113.7 ch 84. Delete Rockwood FM 32°46'N, 97°22'W Delete Dobbins arpt 33°41'N, 96°11'W. In Western bord change Hobbs VOR freq 116.6 to 111.0.

DEL RIO
40th Edition, November 12, 1964

No hazardous changes.

DENVER
53rd Edition, December 10, 1964

No hazardous changes.

DES MOINES
52nd Edition, November 12, 1964

No hazardous changes.

DETROIT
57th Edition, July 23, 1964

Delete Grand Bend (RCAF) airpt 43°17′N, 81°43′W. Realign V98 airway from Toronto to Stirling via Toronto 069°T & Stirling 235°T. Extend V320 airway direct from Peck to Toronto. Relocate Windsor VOR 42°-1454″N, 82°47′44″W, airways & ctld airspace adjusted to conform with new VOR lctn. Add obstn 1101′ MSL 43°33′43″N, 83°58′54″W. Add obstn 1319′ MSL 42°-15′24″N, 83°47′28″W. Change Centralia RBn freq 221 to 512. Change Hamilton RBn freq 512 to 221.

DOUGLAS
42nd Edition, October 15, 1964

Delete Punta Penasco RBn freq 1688.

DUBUQUE
48th Edition, September 17, 1964

Add obstn 1240′ MSL 42°23′36″N, 92°19′30″W. Add obstn 1480′ MSL 43°19′25″N, 90°42′16″W. Add obstn 2449′ MSL 44°05′28″N, 91°20′15″W. Change Dubuque VOR freq 116.1 to 109.4. Change Polo VORTAC freq 113.8 ch 85 to 117.1 ch 119.

DULUTH
38th Edition, July 23, 1964

Delete Moberg SPB 47°29′N, 94°52′W. Add obstn 1735′ MSL 47°53′25″N, 91°52′04″W. Revise Chisholm-Hibbing ctl zone with extsn 8 mi SW. Revise Chisholm-Hibbing transition area with 3 extsns. 13 mi. wide, 18 mi. NE, 12 mi. SW & 18 mi NW of Chisholm-Hibbing arpt.

ELKO
43rd Edition, December 10, 1964

No hazardous changes.

EL PASO
52nd Edition, August 20, 1964

Delete McCombs No. 2 arpt 31°58′N, 104°41′W. Increase obstn 5448′ MSL to 5463′ MSL 31°38′42″N, 105°44′52″W.

FARGO
41st Edition, August 20, 1964

Change Bismarck VOR freq 115.7 to 116.5. Change Red River VOR freq 108.8 to 116.7. Delete Petes Port arpt 48°01′N, 101°59′W. Add obstn 1337′ MSL 47°-54′18″N, 97°34′56″W.

GLACIER PARK
37th Edition, October 15, 1964

Delete Waterton Lake SPB 49°03′N, 113°54′W. Add obstn 3355′ MSL 49°42′30″N, 112°43′00″W.

GRAND CANYON
39th Edition, December 10, 1964

No hazardous changes.

GRAND JUNCTION
41st Edition, November 12, 1964

No hazardous changes.

GREEN BAY
50th Edition, December 10, 1964

No hazardous changes.

HAWAIIAN ISLANDS
17th Edition, December 10, 1964

No hazardous changes.

HUNTINGTON
52nd Edition, August 20, 1964

Change Front Royal VOR freq 113.5 to VORTAC freq 115.3 ch 100. Change Patterson VOR freq 117.1 to 111.6. Change Charleston (W.Va.) VORTAC freq 115.4 Ch 101 to 117.4 Ch 121. Change Gordonsville VORTAC freq 115.3 Ch 100 to 115.6 Ch 103. Add Hot Springs (Private) RBn freq 224, ident HSP, class HW 37°57′00N, 79°49′30″W. Change Wheeling RBn freq 263 to 212. Change Lockbourne AFB Military Climb Corridor R-5501 freq 123.7 to 125.4. In northern border change to Pittsburgh 117.4 Ch 121 PIT to Allegheny 117.1 Ch 118 AGE.

JACKSONVILLE
51st Edition, November 12, 1964

Add obstn 395′ MSL 31°49′59″N, 81°45′02″W.

KANSAS CITY
54th Edition, August 20, 1964

Delete Depperman arpt 38°21′N, 91°30′W. Add obstn 1117′ MSL 39°42′30″N, 90°16′07″W. Change Quincy VORTAC freq 115.6 Ch 103 to 113.1 Ch 78. Delete Lambert-St. Louis ctl twr freq 278.

KLAMATH FALLS
51st Edition, September 17, 1964

Twr comsnd at Mahlon Sweet arpt freqs 118.9 & 257.8. In northern border change Redmond VORTAC freq 113.5 to 117.6 Ch 123.

KOOTENAI
40th Edition, February 6, 1964

Delete Waterton Lake SPB 49°03′N, 113°54′W. Add obstn 4464′ MSL 49°05′30″N, 117°47′00″W.

LA GRANDE
41st Edition, July 23, 1964

Add V298 airway direct McCall to Dubois (082°M McCall) & add in eastern border Dubois VORTAC freq 116.9 Ch 116, ident DBS. Delete Payette FM 44°09N, 116°55'W.

LAKE HURON
39th Edition, May 28, 1964

Extsv airway changes have been made in the SE corner of chart. Add obstn 1083' MSL 44°50'N, 79°20'W. Add obstn 1100' MSL 44°17'N, 78°42'W. Add obstn 1807' MSL 45°40'N, 79°13'W. Add obstn 1813' MSL 45°23'N, 78°59'W. Add obstn 1856' MSL 45°07'N, 78°30'W. Add obstn 1207' MSL 45°03'N, 83°43'W. Change obstn 1600' MSL to 1800' MSL 44°20'N, 78°18'W. Change Wurtsmith AF VOR freq 110.0 to 116.1. Add Kleinburg VOR freq 114.5 ident KG, class VORW, M.V. 7°W 43°56'N, 79°40'W. Delete Toronto LFR legs, ident YZ. Alpena, Mich. ctl area is revoked. Alpena, Mich. transition area designated 21 mi. radius of Phelps-Collins arpt. with 8 mi. extsn N. Realign V300 airway direct from Kleinberg to Wiarton.

LAKE SUPERIOR
40th Edition, August 20, 1964

Add obstn 1695' MSL 46°52'35''N, 88°54'09''W. Add obstn 1891' MSL 46°05'41''N, 88°21'50''W. Change KI Sawyer (AF) VOR freq 112.5 to 117.5. Revise Houghton, Mich. ctl zone adding 3 extsn. 4 SM wide, 3 SM long. extending NW, NE & SE Houghton, Mich. ctl area is revoked. Transition area designated 10 NM radius Houghton VOR with extsns NE & SE. Add obstn 780' MSL 46°59'00N, 84°41'50''W.

LAKE OF THE WOODS
37th Edition, August 20, 1964

Add V129 airway direct International Falls to Kenora. Add obstn 1942' MSL 48°49'00''N, 93°53'00''W.

LEWISTON
42nd Edition, November 12, 1964

Extend V447 airway from Montpelier, Vt. to Sherbrook, P.Q. Canada via the int of Montpelier 020°T & Sherbrook 217°T. Extend W–102 aprxly 5 mi NW

LINCOLN
51st Edition, October 15, 1964

Add obstn 3034' MSL 41°40'54''N, 97°52'38''W.

LITTLE ROCK
46th Edition, July 22, 1964

Delete Fowlkes arpt 34°46'N, 91°33'W. Delete Memphis Flying Service arpt 35°04'N, 89°55'W. Delete Patton arpt 35°34'N, 92°28'W. Add obstn 650' MSL 34°-03'05''N, 93°41'15''W. Add obstn 646' MSL 35°34'45''N, 91°16'00'W. Add obstn 750' MSL 35°26'46''N, 93 26'32''W. Add obstn 3042' MSL 35°09'56''N, 93°4 35''W. Change Drake VOR freq 108.2 to 108.8. Dele Pine Bluff RBn 34°10'33''N, 91°56'06''W. In southe border change Texarkana VORTAC freq 117.1 Ch 118 116.3 Ch 110.

LOS ANGELES SECTIONAL CHART
58th Edition, August 20, 1964

Delete PORTER RANCH arpt 36°02'N–118°06'\ Realign V237 airway direct from NEEDLES to BOU DER. Change V25 airway brg 242°M to 246°M fro LOS ANGELES. Change LONG BEACH ctl twr fre 120.2 to 120.5. Change PALMDALE VORTAC freq 112 Ch 59 to 114.5 Ch 92. Delete FAMOSO FM 35°06' 119°09'W.

MIAMI
50th Edition, September 17, 1964

Add obstn 276' MSL 27°05'34''N, 80°27'01''W. A obstn 457' MSL 28°03'02''N, 81°47'58''W. Add Melbour RBn freq 257, ident MLB, class HW, 28°05'57''N, 80 42'04''W Delete Clearwater Intl ctl twr freq 317.

MILES CITY
42nd Edition, October 15, 1964

No hazardous changes.

MILWAUKEE
57th Edition, December 10, 1964

No hazardous changes.

MINOT
40th Edition, September 17, 1964

Add obstn 1337' MSL 47°54'18''N, 97°34'56''W. D lete Petes Port arpt 48°01'N, 101°59'W.

MOBILE
55th Edition, July 23, 1964

Realign V11 airway direct from Greene County Laurel Realign V70 & V20N airways direct from Eve green to Greene County. Add obstn 467' MSL 30°2 03''N, 90°02'20''W. Add obstn 480' MSL 30°56'53'' 87°10'17''W. Add obstn 692' MSL 30°43'50''N, 89 46'35''W. Change Hanchey (AAF) VOR freq 110.6 112.4. Add Gay Farms RBn freq 329, ident GAY, cla MHW, 31°42'30''N, 84°49'55''W. Add Blakely, Ga. tra sition area additional airspace S of Eufaula VOR. Ad R–4402 aprxly 8 mi N of W–453. Extend W–453 aprx 4 mi NW. Add Blakely RBn freq 365, ident BLG, cla MHW 31°21'00''N, 84°55'45''W. Add obstn 598' MS 31°09'26''N, 87°09'16''W. Add obstn 759' MSL 31°45 26''N, 86°18'42''W. Add obstn 520' MSL 31°00' 86°33'53''W.

MT. SHASTA
52nd Edition, November 12, 1964

No hazardous changes.

MT. WHITNEY
53rd Edition, June 25, 1964

Delete Porter Ranch arpt 36°02′N, 118°06W. Delete Willett arpt 36°15′N, 119°56′W. Extend V283 airway direct Fresno to Reno (345°M of Fresno). Extend V244 airway from Duckwall int direct to Coaldale.

NASHVILLE
53rd Edition, July 23, 1964

Delete Humphreys County arpt 36°05′N, 87°51′W. Delete Lake arpt 36°09′N, 88°36′W. Delete Lewis arpt 35°43′N, 89°12′W. Add obstn 603′ MSL 37°52′11″N, 89°49′44″W. Delete Nashville ctl twr freq 278. Change London VORTAC freq 113.8 Ch 85 to 116.1 Ch 108. Correct Central City VOR code ●—●— ●—●— to —●—● —●—●. Add obstn 882′ MSL 37°30′40″N, 86°17′15″W. In southern border change Chattanooga VORTAC freq 112.8 Ch 75 to 115.8 Ch 105.

NEW ORLEANS
56th Edition, September 17, 1964

Delete Bayou Boeuf SPB 29°41′N, 91°06′W. Delete Hodson arpt 29°40′N, 90°35′W. Delete Saltzman arpt 29°57′N, 92°27′W. Add obstn 329′ MSL 30°35′47″N, 91°31′47″W. Add 2 obstns 467′ MSL 29°59′20″N, 90°27′45″W & 30°00′35″N, 90°27′22″W. Change obstn 315′ MSL to 402′ MSL 29°38′46″N, 90°05′54″W. Delete Lake Charles ctl twr freq 109.1. Change obstn 1044′ MSL to 1244′ MSL 30°02′38″N, 92°22′17″W.

NEW YORK
61st Edition, October 15, 1964

Change Clermont VOR freq 114.3 to 117.6. Change Riverhead VORTAC freq 113.2 Ch 79 to 117.2 Ch 119. In norther border change Chester VOR freq 108.6 to 117.3.

NORFOLK
55th Edition, September 17, 1964

Add obstn 1049′ MSL 37°30′46″N, 77°36′06″W. Add obstn 1250′ MSL 34°03′00″N, 78°04′50″W. Change Cherry Point VOR freq 116.1 to 113.6. Delete freq 137.65 from R–5312 Seymour Johnson AFB Military Climb Corridor. Change New Bern RBn Freq 299 to 379. Extend R–6601 aprxly 2 mi W. Delete Point Lookout RBn & FM 38°02′24″N, 76°19′16″W. Revise Elizabeth City ctl zone adding 2 extsns 10 mi NE &SW. Add obstn 345′ MSL 37°41′52″N, 77°33′07″W.

OKLAHOMA CITY
56th Edition, November 12, 1964

No hazardous changes.

ORLANDO
52nd Edition, November 12, 1964

Delete Strickland arpt 28°52′N, 81°57′W. Add obstn 457′ MSL 2803′02″N, 81°47′58″W. Delete NAS Sanford ctl twr freq 296. Add obstn 506′ MSL 28°22′53″N, 80°36′30″W.

753-036 O - 64 - III-4

PHOENIX
51st Edition, July 23, 1964

Delete Int Harvester arpt 33°18′N, 112°03′W. Add NAF Litchfield Park ctl zone, 3 mi radius of arpt.

POCATELLO
48th Edition, October 15, 1964

Delete Crowheart Butte arpt 43°16′N, 109°06′W.

PORTLAND
51st Edition, July 23, 1964

Delete Pugh arpt 44°29′N, 123°08′W. Twr comsnd at Mahlon Sweet arpt freqs 118.9 & 257.8. Delete Portland Intl ctl twr freq 278. Delete Troutdale ctl twr freq 283. Add obstn 2049′ MSL 45°31′19″N, 122°44′53″W.

PRESCOTT
42nd Edition, September 17, 1964

No hazardous changes.

RAPID CITY
41st Edition, December 10, 1964

No hazardous changes.

RENO
42nd Edition, June 25, 1964

Extend V244 airway from Duckwall int direct to Coaldale. Add V283 airway direct Reno to Fresno (165°M of Reno). Change Sparks RBn freq 215 to 329. Add Lake Tahoe, Calif. ctl zone 5 mi radius of arpt.

ROSWELL
51st Edition, June 25, 1964

Delete McCombs No. 2 arpt 31°58′N, 104°41′W. Change Lubbock VOR freq 116.4 to VORTAC freq 110.8 Ch 45. Relocate Hobbs, N.M. VOR 32°38′15″N, 103°16′10″W. Adjust airways to new lat & long. Change Hobbs VOR freq 116.6 to 111.0. Add obstn 3819′ MSL 33°27′46″N, 104°30′00″W. Change Columbus VOR freq 113.8 to 111.2. In northern border change Texico VORTAC freq 112.9 to 112.2 Ch 59. In northern border change Socorro VORTAC freq 112.5 Ch 72 to 116.8 Ch 115.

SACRAMENTO
52nd Edition, June 25, 1964

Extend V244 airway from Duckwall int direct to Coaldale. Add V283 airway direct Reno to Fresno (165°M of Reno). Add Lake Tahoe, Calif. ctl zone 5 mi radius of arpt. Change San Francisco VOR freq 111.8 to 111.2. Relocate Willits arpt 39°27′N, 123°22′W & change elev 1356′ to 2054. Delete Sacramento LFR 38°29′N, 121°28′W. Delete Clarksburg FM 38°21′N, 121°38′W. Change Sparks RBn freq 215 to 329.

SALINA
51st Edition, September 17, 1964

Add obstn 2485′ MSL 38°09′26″N, 99°22′13″W. Change obstn 2875′ MSL to 2880′ MSL 38°25′54″N, 98°46′18″W. Add Manhattan (Pvt) RBn freq 391, ident MHK, class HW 39°06′55″N, 96°37′30″W.

SALT LAKE CITY
50th Edition, December 10, 1964

No hazardous changes.

SAN ANTONIO
54th Edition, June 25, 1964

Delete Houston FM 29°43′N, 95°19″W. Add obstn 1130′ MSL 29°38′06″N, 98°37′47″W. In western border change Rocksprings VOR freq 109.0 to 111.2.

SAN DIEGO
56th Edition, August 20, 1964

Delete Borrego Palms arpt 33°16′N, 116°23′W. Delete Torrey Pines arpt 32°54′N, 117°14′W. Delete Los Angeles Intl ctl twr freq 278. Delete Orange Co. ctl twr freq 326. Change NAAS Ream ctl twr freq 340.2 to 271.4. Delete Banning FM 33°55′N, 116°51′W. Delete Miramar RBn 31°53′N, 117°03′W. Change El Centro VORTAC name to Imperial & ident ELC to IPL. Add Palm Springs VOR freq 115.5 ident PSP, class L–VOR, MV 15°E 33°52′12″N, 116°25′43″W. Delete Oceanside RBn 33°14′N, 117°24′W. Add Riverside ctl zone 3 mi radius of arpt with NW extsn.

SAN FRANCISCO
55th Edition, June 25, 1964

Extend V244 airway direct from Stockton to Coaldale (068°M of Stockton). Change San Francisco VOR freq 111.8 to 111.2. Delete Fremont RBn 37°34′N, 122°02′W. Extend R–2517 S portion aprxly 3 mi E. Extend R–2516 aprxly 4 mi N. Delete Willett arpt 36°15′N, 119°56′W.

SAVANNAH
56th Edition, September 17, 1964

Delete Estill arpt 32°43′N, 81°15′W. Delete Santee Cooper arpt 33°33′N, 80°26′W. Add obstn 473′ MSL 32°02′53″N. 81°59′08″W. Add obstn 631′ MSL 32°-39′15″N, 83°01′48″W. Add obstn 700 MSL 32°09′56″N, 82°40′33″W. Add obstn 750′ MSL 32°32′42″N, 82°-22′54″W. Add obstn 830′ MSL 33°14′29″N, 82°41′46″W. Add obstn 835′ MSL 32°50′52″, 83°20′22″W. Add obstn 1250′ MSL 34°03′00″N, 78°04′56″W. Delete Columbia ctl twr freq 335. Twr comsnd at Owens arpt freqs 126.2 & 241.0. In northern border change Florence VORTAC freq 115.5 to 115.2 Ch 99.

SEATTLE
56th Edition, December 10, 1964

No hazardous changes.

SHREVEPORT
47th Edition, June 25, 1964

Delete Bintliff arpt 32°57′N, 91°13′W. Delete Cartl age arpt 32°09′N, 94°21′W. Delete Perry arpt 32°44′ 91°55′W. Add V245 airway direct Jackson to Natch (222°M of Jackson). Add obstn 455′ MSL 32°32′26″ 93°50′09″W. Add obstn 570′ MSL 33°36′07″N, 92 51′32″W. Add obstn 620′ MSL 32°40′03″N, 94°11′14″W Add obstn 650′ MSL 34°03′05″N, 93°41′15″W. Add obst 665′ MSL 33°13′15″N, 92°38′30″W. Add obstn 82 MSL 32°43′36″N, 94°55′02″W. Add obstn 851′ MS 32°24′24″N, 94°50′58″W. Add obstn 901′ MSL 32°5 38″N, 95°15′11″W. Add obstn 930′ MSL 33°59′16″ 94°17′43″W. Change Texarkana VORTAC freq 117 Ch 118 to 116.3 Ch 110. Add obstn 590′ MSL 32 46′57″N, 91°56′08″W.

SIOUX CITY
40th Edition, November 12, 1964

Delete Madison arpt 44°01′N, 97°03′W. Add obs 1902′ MSL 42°05′24″N, 97°01′00″.

SPOKANE
50th Edition, December 10, 1964

No hazardous changes.

TRINIDAD
40th Edition, Sepetember 17, 1964

Add V211 airway via 270°M from Durango. Add V4 airway Farmington to Durango to Gunnison. Dele Hermit Lakes arpt 37°49′N, 107°13′W. Add obstn 429 MSL 37°55′27″N, 107°13′W.

TULSA
54th Edition, October 15, 1964

Delete Sky Haven arpt 36°46′N, 91°53′W. Dele Waynesville Mem arpt 37°49′N, 92°11′W. Add obs 663′ MSL 36°03′40″N, 90°57′15″W. Add obstn 135 MSL 37°50′59″N, 94°22′22″.

TWIN CITIES
49th Edition, November 12, 1964

Add obstn 1531′ MSL 45°01′32″N, 93°02′38″W.

WASHINGTON
60th Edition, October 15, 1964

Change Kenton VORTAC freq 114.8 Ch 95 to 116.8 C 115. Change Sea Isle VORTAC freq 115.2 Ch 99 114.8 Ch 95. Delete Point Lookout RBn & FM 38 02′24″N, 76°19′16″W.

WICHITA
52nd Edition, June 25, 1964

Delete McDonald arpt 37°56′N, 101°35′W. Add obst 1953′ MSL 37°39′48″N, 98°19′00″W. Add obstn 372

MSL 37°39'01''N, 100°40'06''W. Delete Hutchinson Mun ctl twr freq 278. Revise Gage, Okla. ctl zone adding NE extsn aprxly 10 mi from arpt.

WILLISTON

38th Edition, July 23, 1964

Delete Petes Port arpt 48°01'N, 101°59'W. Add obstn 2125' MSL 49°43'15''N, 104°01'00''W. Add obstn 2690' MSL 49°42'10''N, 106°03'05''W. Add obstn 2735' MSL 49°38'40''N, 105°59'30''W. Add obstn 2930' MSL 49°-26'45''N, 107°00'45''W. Add obstn 3150' MSL 50°-00'30''N, 107°45'00''W. Add Moose Jaw term ctl area within a 50 SM radius of Moose Jaw arpt 50°20'N, 105°33'W.

WINSTON-SALEM

54th Edition, October 15, 1964

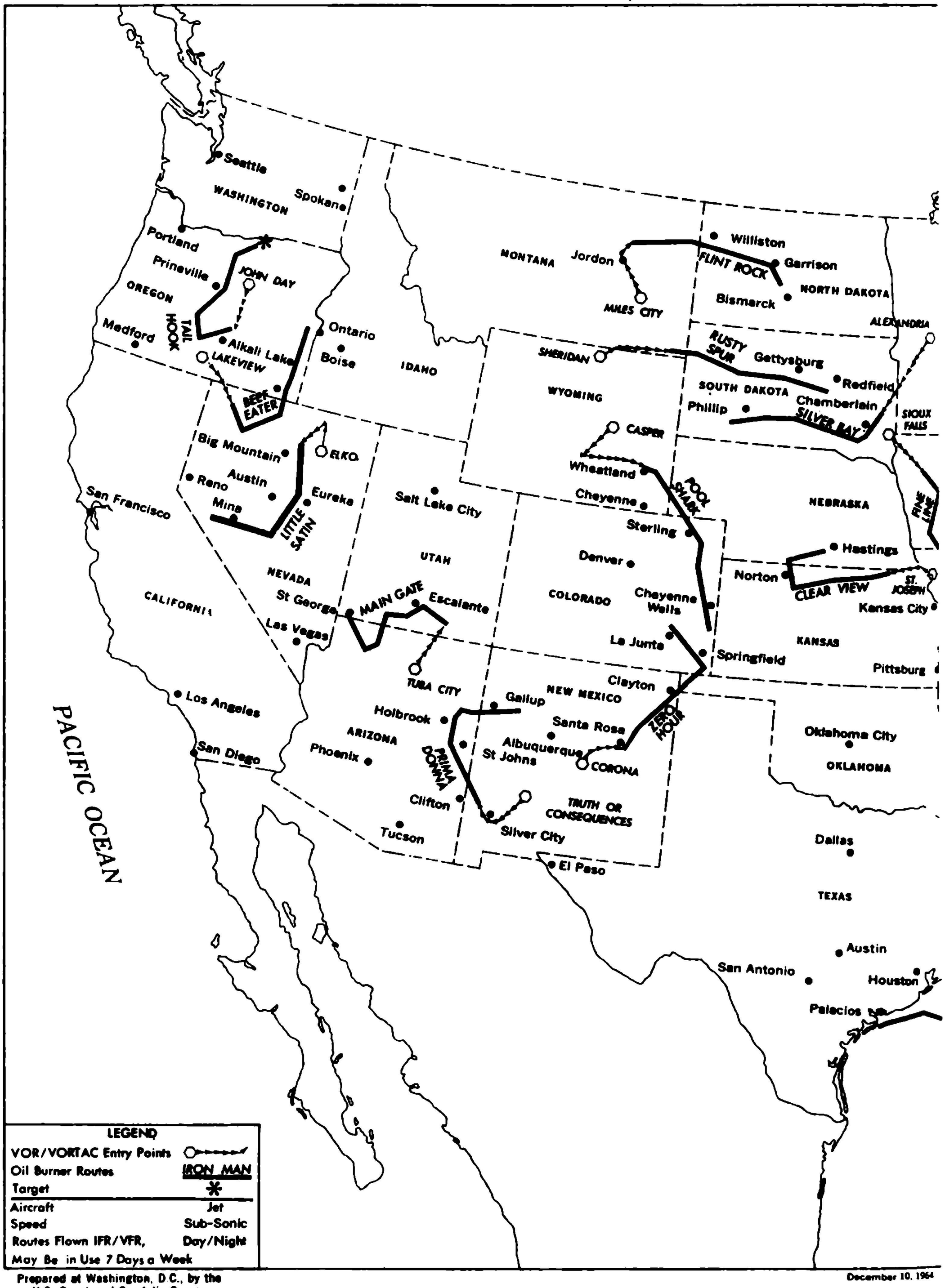
Change Bluefield VOR freq 113.3 to 115.4. Add Hot Springs (Pvt) RBn freq 224, ident HSP, class HW 37°57'00''N, 79°49'30''W. In northern border change Charleston W.Va. VORTAC freq 115.4 Ch 101 to 117.4 Ch 121.

YELLOWSTONE PARK

40th Edition, September 17, 1964

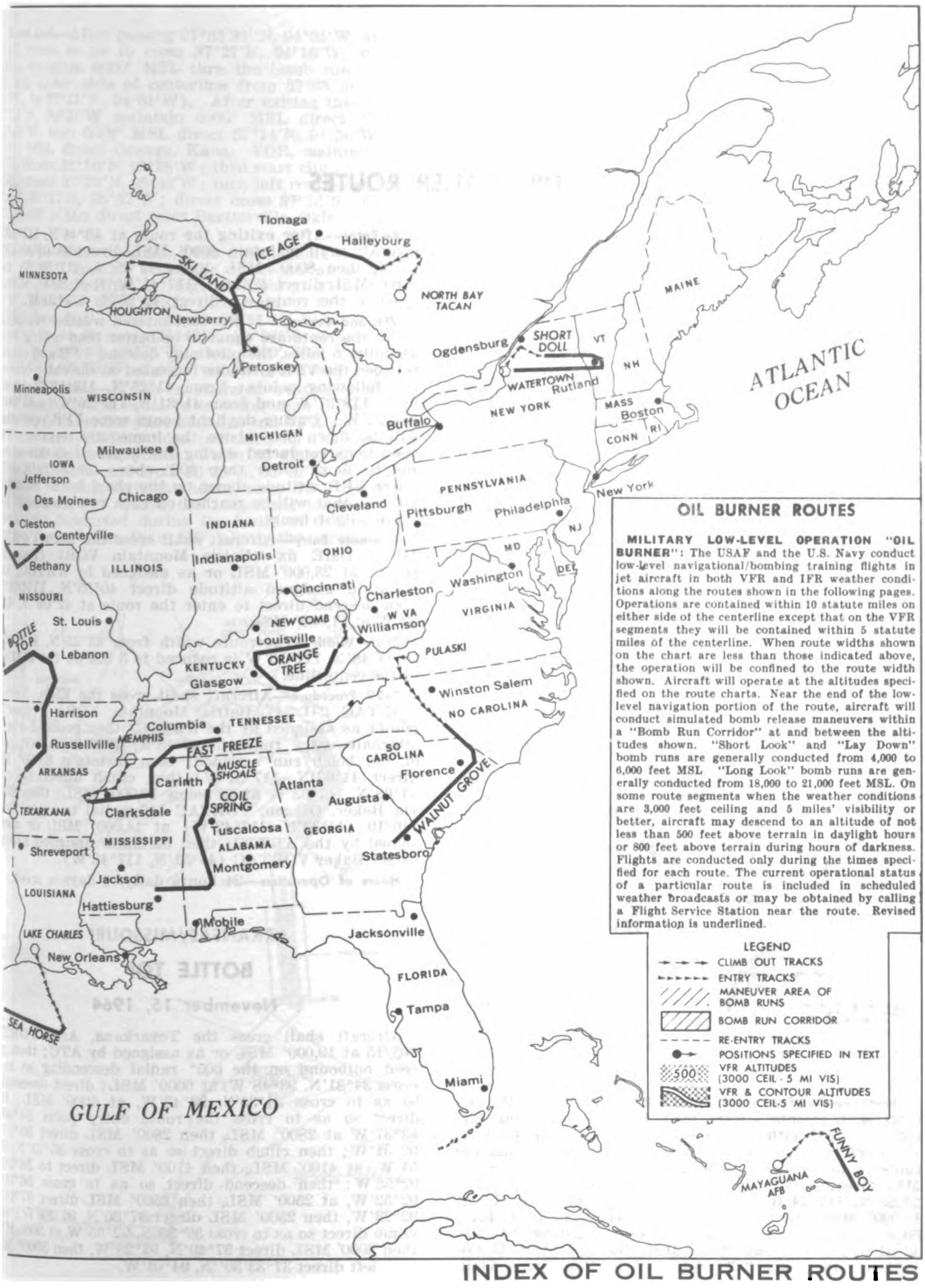
Delete West Yellowstone arpt 44°40'N, 111°07'W. In southern border change Boysen Reservoir VORTAC freq 114.9 Ch 96 to 117.8 Ch 125.

INDEX OF OIL BURNER ROUTES



Prepared at Washington, D.C., by the
U.S. Coast and Geodetic Survey

December 10, 1964



OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 10 statute miles on either side of the centerline except that on the VFR segments they will be contained within 5 statute miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

LEGEND

- CLIMB OUT TRACKS
- ENTRY TRACKS
- MANEUVER AREA OF BOMB RUNS
- BOMB RUN CORRIDOR
- RE-ENTRY TRACKS
- POSITIONS SPECIFIED IN TEXT
- 500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
- VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

INDEX OF OIL BURNER ROUTES

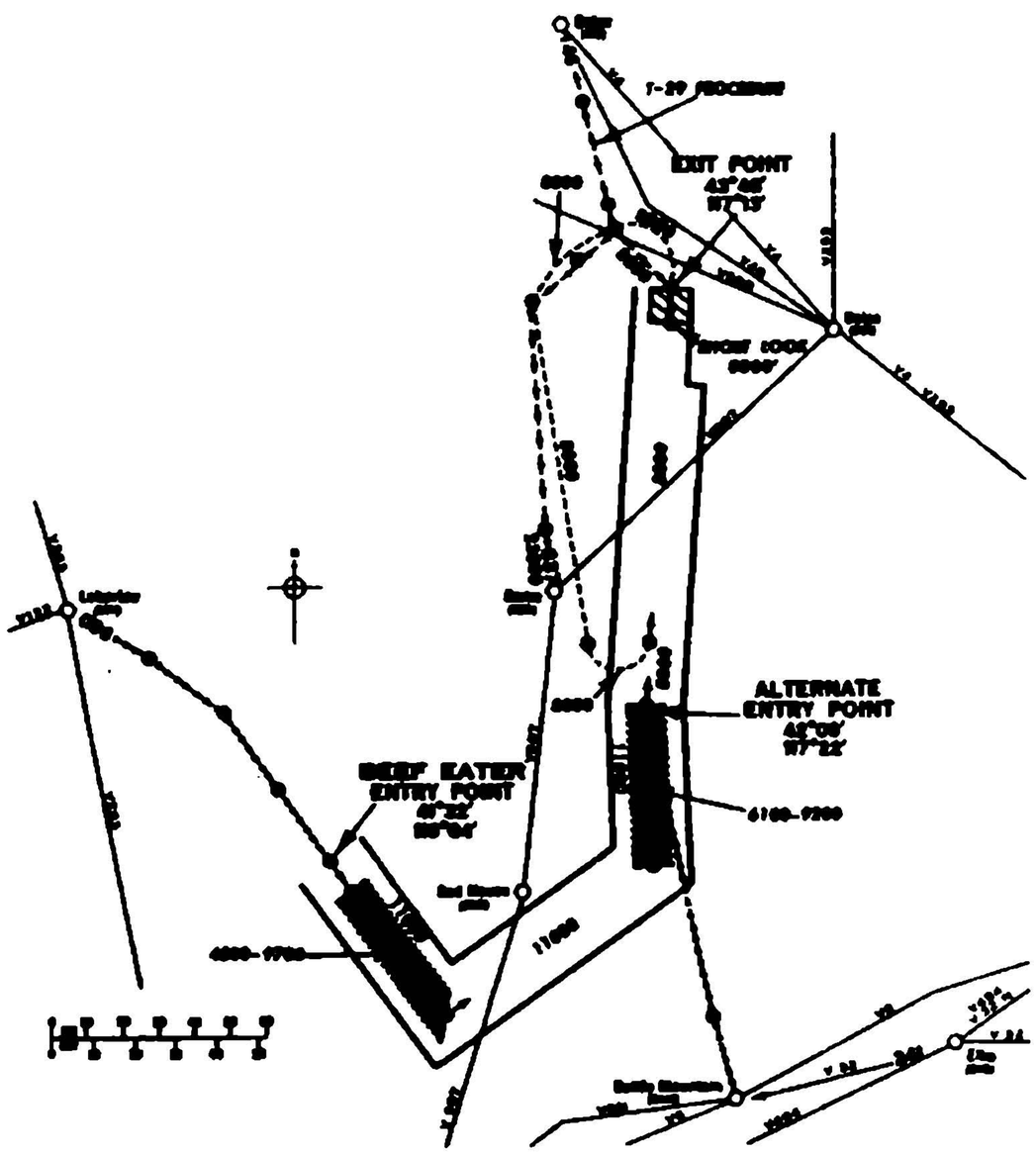
OIL BURNER ROUTES

NEVADA/OREGON

BEEF EATER

Effective May 3, 1964

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at 23,000′ MSL, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 096° radial until 22 NM east of the Lakeview VORTAC (42°-20′N, 120°04′W); then descend direct to cross 42°07′N, 119°39′W at or below 23,000′ MSL; then descend direct to cross 41°49′N, 119°21′W at or above 16,000′ MSL; then descend direct to cross the entry point of the low level route at 41°32′N, 119°04′W at 11,000′ MSL, then 11,000′ MSL direct 40°55′N, 118°27′W, then 11,000′ MSL direct 41°31′N, 117°20′W, then 11,000′ MSL direct 42°09′N, 117°22′W; then descend to cross 42°26′N, 117°20′W at 8000′ MSL, then 8000′ MSL direct 43°40′N, 117°13′30″W.



Short Look—After passing 43°40′N, 117°13′30″W aircraft shall maintain 8000′ MSL thru the bomb run corridor (5 SM either side of centerline from 43°40′N, 117°13′30″W to 43°48′N, 117°13′W). After exiting the route at 43°48′N, 117°13′W aircraft shall maintain 8000′ MSL direct 44°03′N, 117°31′W; then climb direct to cross 43°55′N, 117°44′W (reporting point—Beef Eater 1) at 10,000′ MSL; then climb direct to cross 43°45′N, 117°-59′W at or above 14,000′ MSL; then climb direct to cross 42°51′N, 117°54′W at 23,000′ MSL, then maintain 23,000′ MSL via the Rome 337° radial to the Rome, Ore. VOR

Re-Entry—After exiting the route at 43°48′N, 117°13′ aircraft shall maintain 8000′ MSL direct 44°03′N, 117 31′W, then 8000′ MSL direct 43°45′N, 117°59′W, the 8000′ MSL direct 42°24′N, 117°41′W, then 8000′ MSL re-enter the route via direct 42°26′N, 117°20′W.

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and opera between the VFR altitudes indicated on the chart betwe the following points: From 41°25′N, 118°57′W to 40 55′N, 118°27′W and from 41°31′N, 117°20′W to 42°09′ 117°22′W. During daylight hours some VFR operatio will be flown 500′ above the immediate terrain. VF operations conducted during the hours of darkness wi not be flown lower than 800′ above the terrain. Th lower VFR altitude shown on the chart is the minimu altitude that will be reached on each route segment du ing daylight hours.

Alternate Entry—Aircraft shall cross the Elko VORTA 241/54 DME fix (Battle Mountain VOR) (reportin point) at 23,000′ MSL or as assigned by ARTCC, the maintain assigned altitude direct 40°55′N, 117°01′W then descend direct to enter the route at 42°09′N, 117 22′W at 11,000′ MSL.

Route Width—The route width from 43°25′N, 117°15′ to 43°48′N, 117°13′W is reduced to 5 SM on the east sid of the centerline.

I–29 Procedure—Aircraft shall cross the Elko, Nevad VORTAC 241/54 (Battle Mountain VOR) (reportin point) as assigned by the ARTCC; then proceed via th alternate entry route to 43°48′N, 117°13′W exit poin of the bomb run corridor; then maintain 8,000′ MS direct 44°03′N, 117°31′W; then climb direct to cros 44°08′N, 117°33′W at or below 10,000′ MSL; then direc via Baker, Oregon, VORTAC 146 radial to cross Bak 146/19 (44°32′N, 117°42′W) at 14,000′ MSL or as a signed by the ARTCC; then maintain assigned altitud direct Baker VORTAC (44°51′N, 117°48′W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

BOTTLE TOP

November 15, 1964

Aircraft shall cross the Texarkana, Ark. VORTA 005/15 at 19,000′ MSL or as assigned by ATC; then pr ceed outbound on the 005° radial descending so as t cross 34°31′N, 93°48′W, at 6000′ MSL; direct descendin so as to cross 34°35′N, 93°43′W, at 4000′ MSL; the direct so as to cross the route entry point 34°40′ 93°37′W at 2800′ MSL, then 2800′ MSL direct 35°17′ 92°51′W; then climb direct so as to cross 35°21′N, 92° 51′W, at 4100′ MSL, then 4100′ MSL direct to 36°26′ 92°55′W; then descend direct so as to cross 36°30′ 92°52′W, at 2500′ MSL, then 2500′ MSL direct 37°06′ 92°23′W, then 2500′ MSL direct 37°30′N, 92°34′W; the climb direct so as to cross 37°33′N, 92°35′W at 300′ MSL then 3000′ MSL direct 37°49′N, 93°23′W, then 3000′ MSL turn left direct 37°33′30″N, 94°01′W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (5 SM either side of centerline from 37°33'30''N, 94°-01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to 23,000' MSL direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at 23,000' MSL.

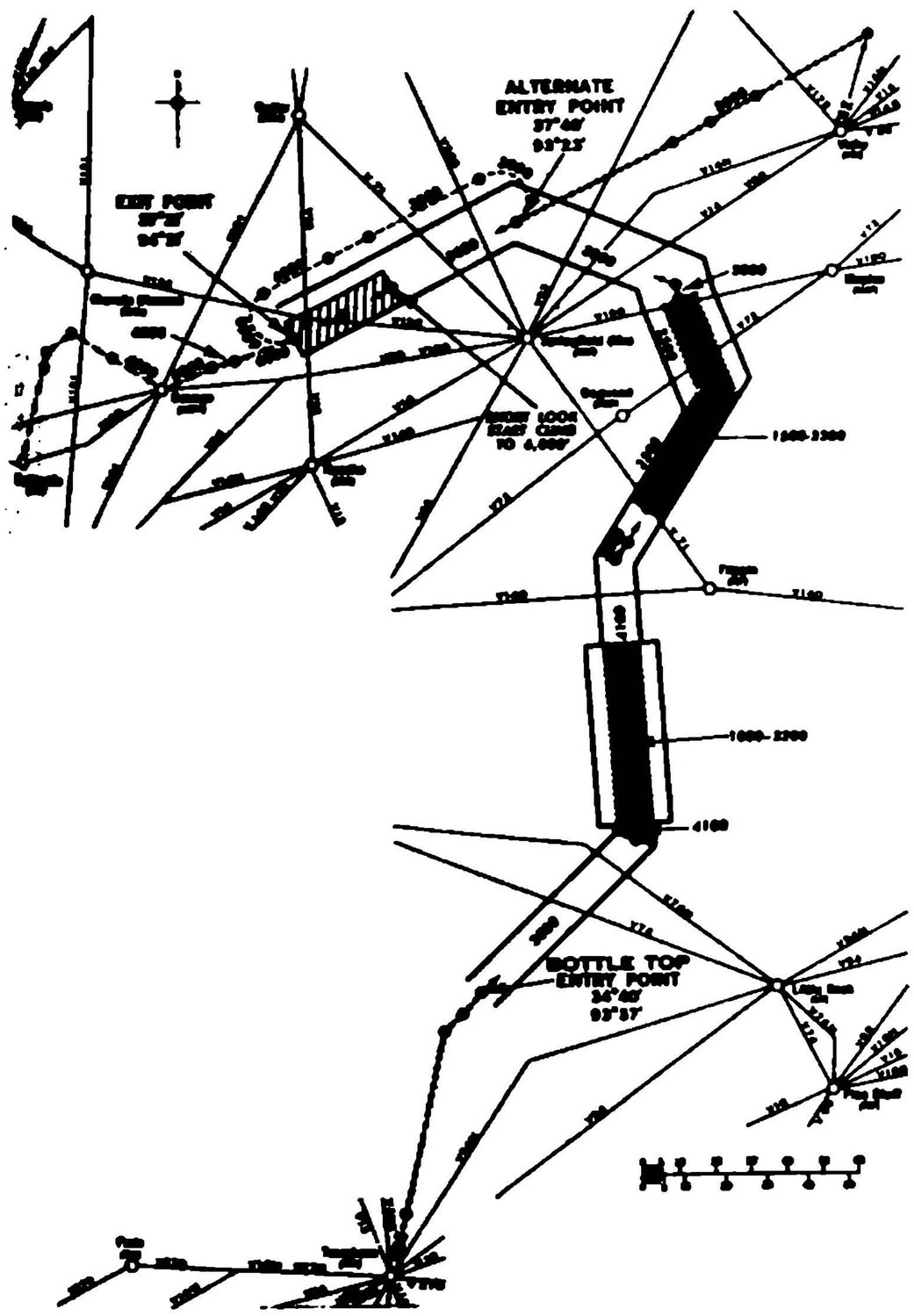
Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°-31'W, maintain 6000' MSL, turn right to 37°32'N, 94°-41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°00'N, 93°34'W, then 3000' MSL turn right to 37°49'N, 93°23'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 92°34'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VOR-TAC 012/25 at 15,000' MSL or as assigned by ATC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°-06'N, 92°23'W is reduced to 5 SM either side of centerline and 5 SM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W.

Hours of Operation—0100Z to 1400Z, 7 days per week."



KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW

Effective September 6, 1964

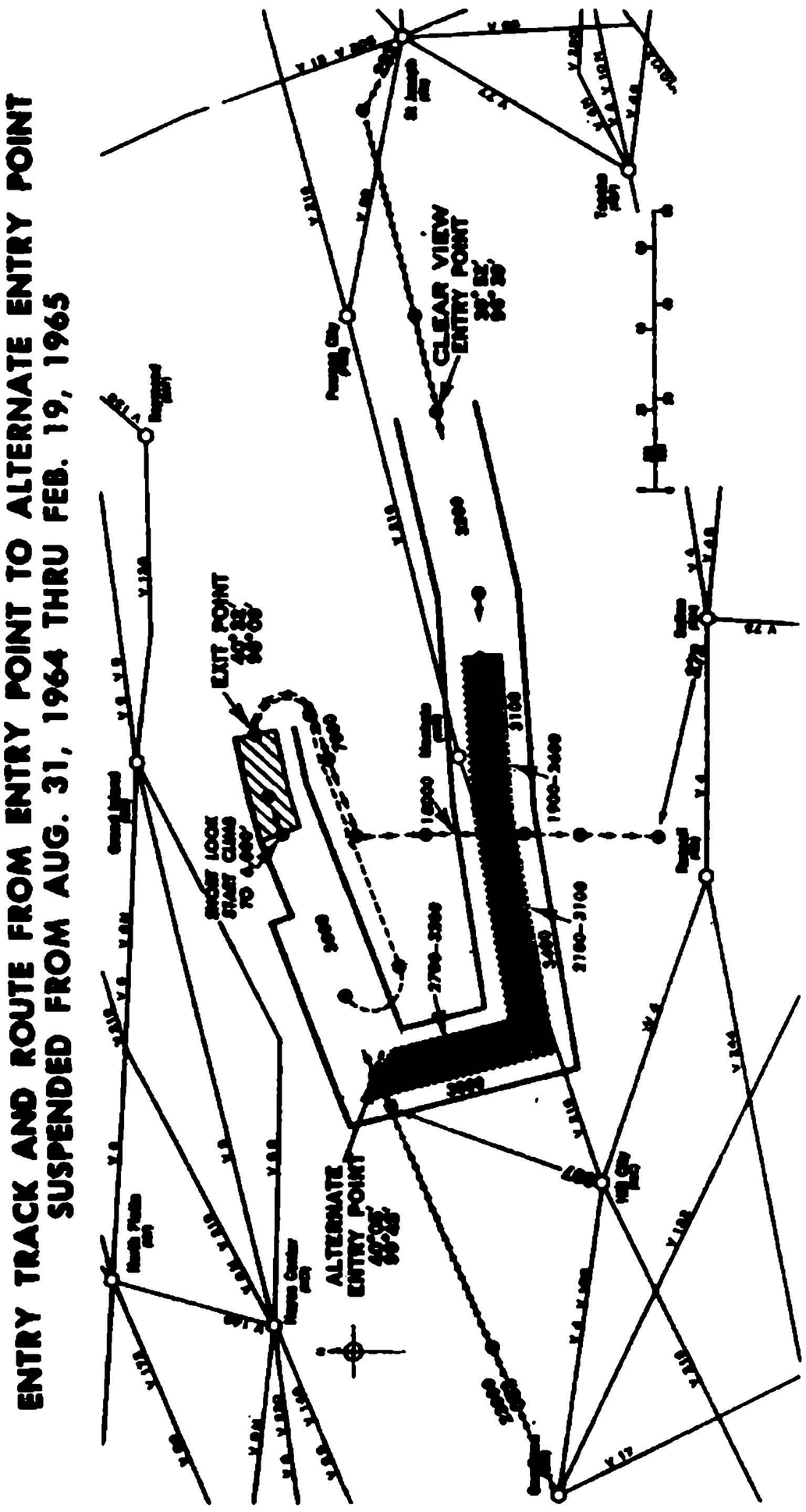
Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 293° radial, maintain FL 240 or above until 17 NM northwest of St. Joseph VOR; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL direct 40°05'N, 99°45'W; maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (5 SM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at 18,000' MSL; then at 18,000' MSL direct 39°33'N, 98°-37'W; then climb so as to cross 39°21'N, 98°37'W at or below 23,000' MSL, then start climb so as to cross the Salina VORTAC 272/48 at FL 250.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°-09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 40°00'N, 99°14'W; turn right descending to 3800' MSL to 40°12'N, 99°22'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 39°42'N, 97°48'W to 40°05'N, 99°45'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Goodland, Kansas VOR at 23,000' MSL; and proceed northeast on the Goodland VOR 053° radial maintaining 23,000' MSL until 35 NM nrtheast of Goodland VOR, then descend so as to reach 5500' MSL by the Hill City, Kansas VOR 007/49 NM fix; then descend to 3800' MSL direct 40°05'N, 99°45'W, thence via the published route.



Route Width—The route width from 99°00′W to the route exit point is five statute miles on the north side of the route centerline and 10 statute miles on the south side of the route centerline.

Hours of Operation—0000Z to 2359Z Monday through Saturday.

ALABAMA/MISSISSIPPI

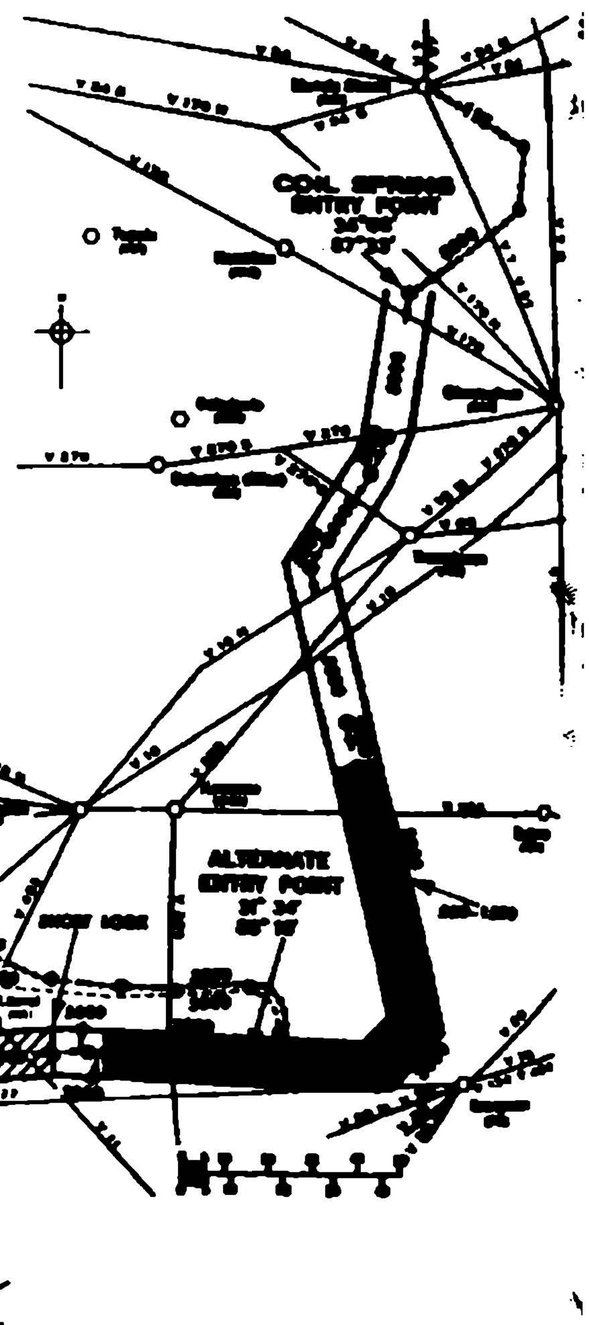
COIL SPRING

Effective October 18, 1964

Aircraft shall cross Muscle Shoals, Alabama VOR at 20,000′ MSL, or as assigned. Descend via Muscle Shoals VOR 115° radial, cross Muscle Shoals VOR 115°/24 NM at 12,000′ MSL; turn right, descend to cross 34°19′N, 87°06′W at 8000′ MSL, maintain 8000′ MSL direct to the route entry point at 34°08′N, 87°33′W, direct 33° 35′N, 87°38′W, direct 33°28′N, 87°42′W; descend direct to cross 33°15′N, 87°52′W at 5000′ MSL, maintain 5000 MSL direct 33°10′N, 87°56′W, direct 32°40′N, 87°48′W descend to cross 32°31′N, 87°45′W at 2000′ MSL, maintain 2000′ MSL direct 31°41′N, 87°31′W, turn right t 31°33′N, 87°40′W, maintain 2000′ MSL direct 31°36′N 88°42′W; climb direct to cross 31°36′N, 88°46′W at 3000 MSL, direct to cross 31°36′N, 88°55′W at 5000′ MSL In addition to the above, aircraft may climb to 3000 MSL after 31°33′N, 87°40′W and maintain 3000′ MSI to 31°36′N, 88°55′W during the hours 0600Z–1200Z.

Short Lock—After passing 31°36′N, 88°55′W aircraf shall operate through the bomb run corridor at 5000 MSL. In addition, aircraft may operate through th bomb run corridor at 3000′ MSL during the hours 0600Z 1200Z. (The bomb run corridor is 5 SM either sid centerline from 31°36′N, 88°55′W to 31°35′N, 89°14′W. After exiting the route at 31°35′N, 89°14′W, aircraf shall cross 31°36′N, 89°30′W at 5000′ MSL; start climl direct to cross 31°37′N, 89°56′W at 14,000′ MSL (re porting point), maintain 14,000′ MSL direct 31°33′N 90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 205° radial 56 NM fix (31°42′N, 90°44′W) at or below 23,000′ MSL, thence via 205° radial to cross 36 NM fix at FL 250, maintain FL 250 or as assigned to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additiona bomb run shall, after exiting the route at 31°35′N 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000 MSL, maintain 5000′ MSL, turn right to 31°49′N, 89° 14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W turn right, cross 31°40′N, 88°08′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via published route.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 32°31'N, 87°-45'W to 31°36'N, 88°42'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15"N, 90°15'29"W) at 23,000' MSL, or as assigned: maintain 23,000' MSL or as assigned via the McComb VOR 028° radial to 13 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°03'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

Route Width—The entire route is reduced to 5 SM either side of route centerline.

Hours of Operation—24 hours per day, 7 days a week.

DUCK FLAT

ALASKA

Effective June 16, 1963

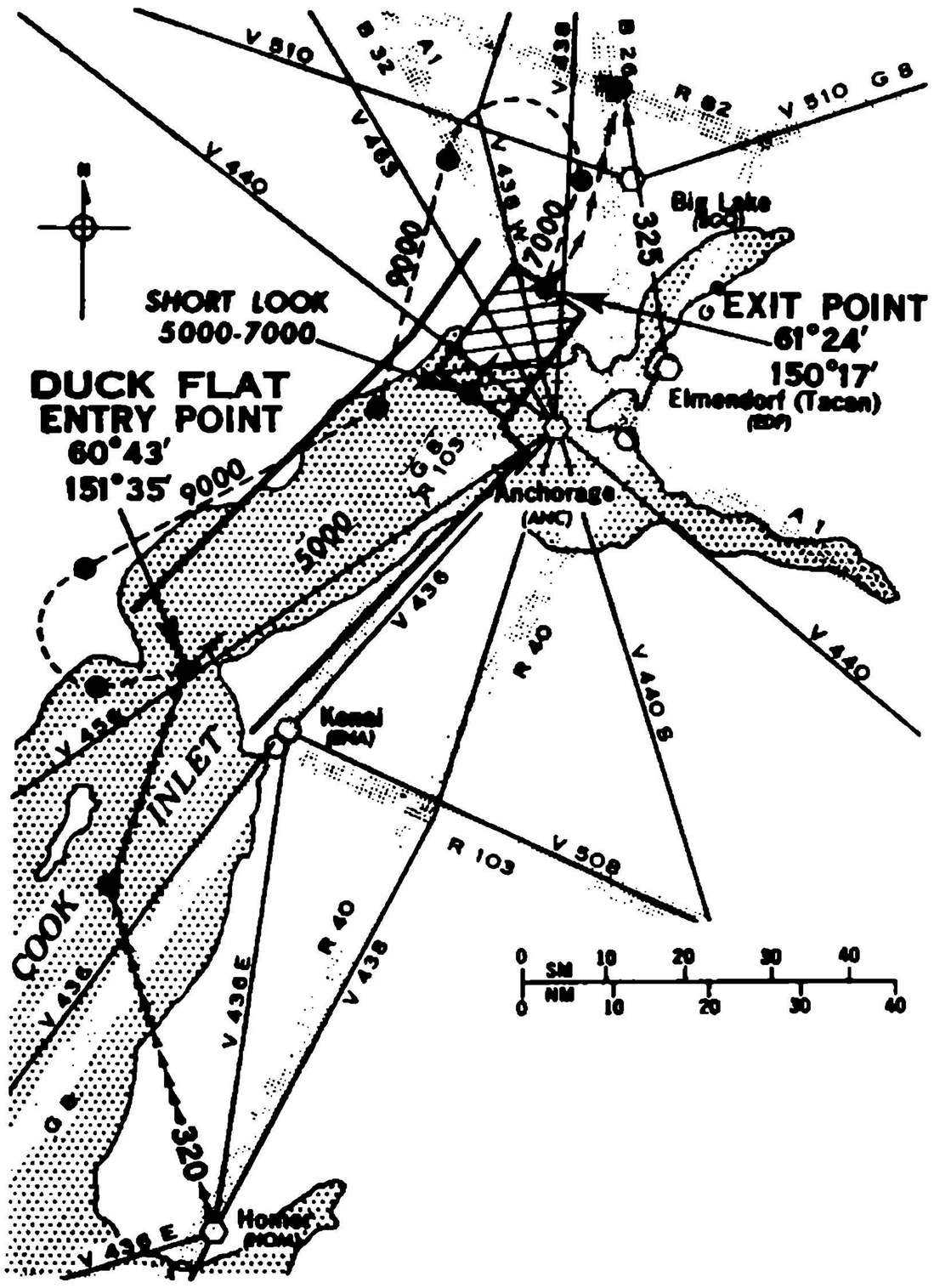
Aircraft shall cross the Homer, Alaska VOR (reporting point) at FL 250 or as assigned by ARTCC, descend via the 320° radial of the Homer VOR to 60°20'N, 151°50'W, continue descent to cross the route entry point at 60°-43'N, 151°35'W at 5000' MSL, maintain 5000' MSL to 61°13', 150°34'W.

Short Look—After passing 61°13'N, 150°34'W aircraft shall maintain between 5000' MSL and 7000' MSL through the bomb run corridor (5 smi either side centerline from 61°13'N, 150°34'W to 61°24'N, 150°17'W). After passing 61°24'N, 150°17'W (reporting point), the route exit point, aircraft shall climb to or maintain 7000' MSL direct to the Elmendorf TACAN 325° radial 30 NM fix (Willow Intersection).

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 61°24'N, 150°17'W, maintain 7000' MSL to 61°35'N, 150°08'W, then turn left climbing to 9000' MSL direct to 61°38'N, 150°38'W, then 9000' MSL to 61°13'N, 150°54'W, then 9000' MSL direct 60°53'N, 151°57'W, then a left descending turn to cross 60°41'N, 151°54'W at 7000' MSL or above, direct to reentry the Duck Flat route at 60°43'N, 151°35'W at 5000' MSL.

Route Width—The route width is reduced to 5 smi southeast of centerline from 61°13'N, 150°34'W to 61°24'N, 150°17'W.

Hours of Operation—2000Z to 2400Z Monday through Friday.



ALABAMA/MISSISSIPPI/TENNESSEE

FAST FREEZE

Effective January 4, 1965 through March 27, 1965

Aircraft shall cross the Memphis, Tennessee, VORTAC at FL 250 or as assigned by ARTC; then maintain FL 250 or assigned altitude via the 201° radial of the Memphis VORTAC to the 26 NM DME fix (34°39'N, 90°-08'W); then descend direct so as to cross 34°17'N, 90°21'W (201/50 NM DME fix of Memphis VORTAC) at FL 200; then descend direct so as to cross 34°14'N, 90°40'W at 16,000' MSL; then descend direct to 34°08'N, 91°16'W; then turn left descending to 33°54'N, 91°13'W; then continue descend direct so as to cross 33°55'N, 91°-05'W at 1700' MSL (low level entry point); then at 1700' MSL direct to 34°03'N, 89°12'W; then at 1700' MSL direct to 34°47'N, 89°11'W; then at 1700' MSL direct to 35°05'N, 88°48'W; then at 2200' MSL direct to 35°13'N, 88°39'W; then at 2200' MSL direct to 35°19'N, 87°47'W.

Short Look and Lay Down—After passing 35°19'N, 87°-47'W aircraft shall maintain between 2200' MSL and 3000' MSL through the bomb run corridor (5 statute miles either side of centerline from 35°19'N, 87°47'W to 35°24'N, 87°03'W). After exiting the route at 35°-24'N, 87°03'W, aircraft shall turn right climbing so as to cross 35°14'N, 86°47'W at 6000' MSL; then at 6000' MSL to 35°05'N, 86°38'W; then climb direct so as to cross 34°58'N, 86°30'W at 10,000' MSL or above; then

climb direct so as to cross 34°43′N, 86°13′W at (026/71 NM DME fix of Birmingham, Alabama, VORTAC) at 15,000′ MSL; then climb direct so as to cross 34°18′N, 86°30′W (025/43 NM DME fix of Birmingham, Alabama, VORTAC) at FL 220 or above; then climb direct so as to cross 34°09′N, 86°36′W (025/33 NM DME fix of Birmingham, Alabama, VORTAC) at FL 240.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 35°24′N, 87°03′W, turn right and climb so as to cross 35°13′N, 86°55′W at 6000′ MSL; then continue turn at 6000′ MSL to 35°10′N, 87°01′W; then at 6000′ MSL direct to 35°05′N, 87°46′W; then descend direct so as to cross 35°04′N, 87°56′W at 3000′ MSL; then at 3000′ MSL turn right to 35°10′N, 88°-06′W; then turn right descending so as to cross 35°17′-30″N, 87°59′W at 2200′ MSL; then at 2200′ MSL direct to 35°19′N, 87°47′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 34°00′N, 90°00′W to 35°13′N, 88°39′W. During daylight hours, some VFR operations will be flown 500 feet above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800 feet above t terrain. The lower VFR altitude shown on the chart the minimum altitude that will be reached on each rou segment during dayight hours.

Alternate Entry—Aircraft shall cross the 175/83 N DME fix of the Memphis, Tennessee, VORTAC (33°39′ 89°53′W) at FL 200 or as assiged by ARTC; then d scend direct to 33°39′N, 89°22′W (158/86 NM DME f of the Memphis VORTAC); then continue descent dire so as to cross 33°50′N, 89°18′W at 10,000′ MSL or belo then descend direct so as to cross 34°03′N, 89°12′W 6000′ MSL; then descend direct so as to cross 34°19′ 89°12′W at 1700′ MSL; then at 1700′ MSL direct 34°47′N, 89°11′W; then at 1700′ MSL direct 35°05′ 88°48′W; thence via the published route.

Route Width—The route width is reduced to 5 statu miles on either side of centerline from 33°55′N, 91°05′ to 35°24′N, 87°03′W.

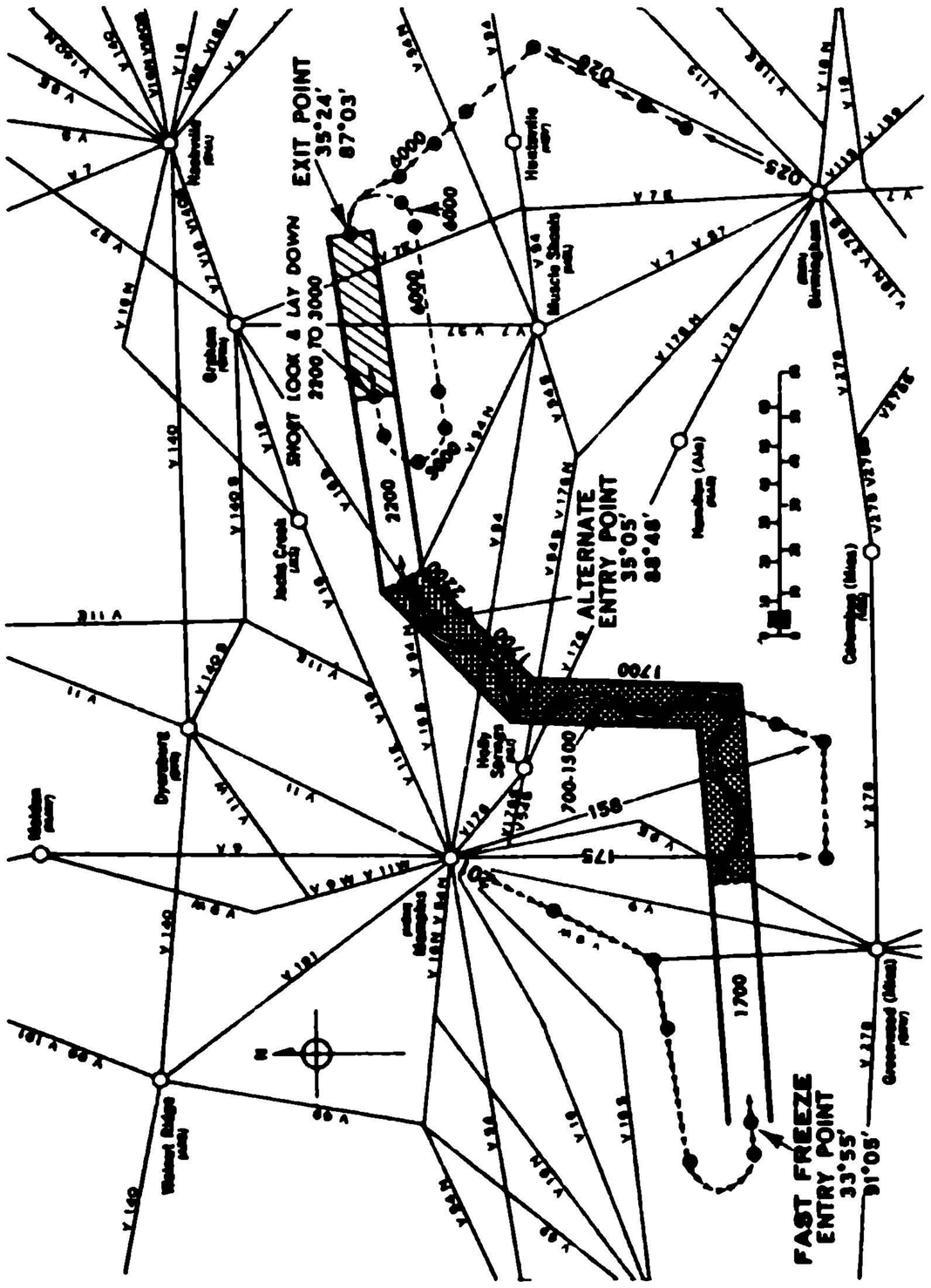
Hours of Operation—24 hours daily, 7 days per week

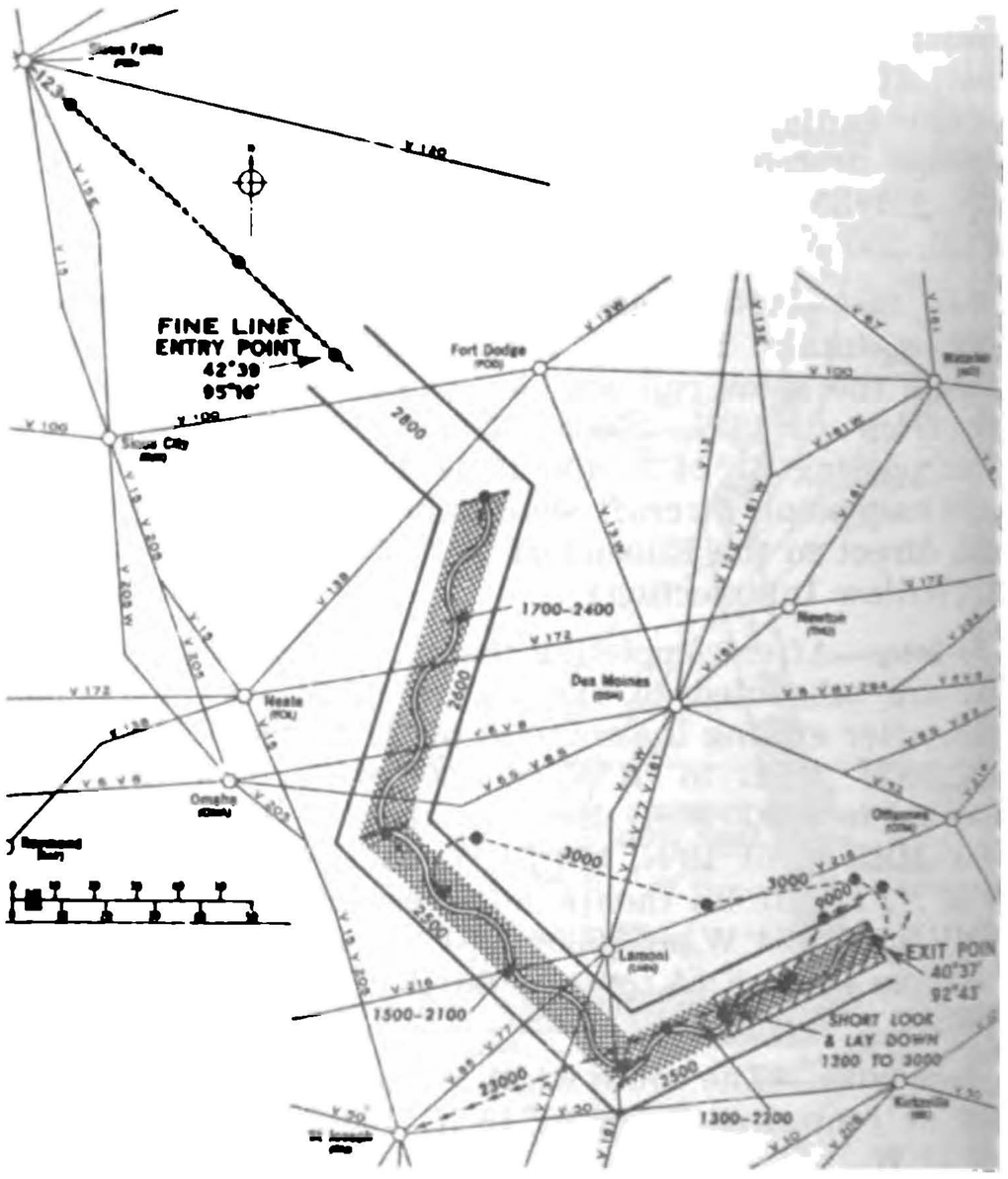
IOWA/MISSOURI

FINE LINE

Effective August 31 thru February 19, 1965

Aircraft shall cross the Sioux Falls, South Dako VORTAC at 23,000′ MSL or as assigned by ARTCC a proceed via the 123° radial maintaining 23,000′ MSL assigned altitude until 13 NM southeast; then desce via the 123° radial of the Sioux Falls VORTAC so to cross 42°58′N, 95°44′W at 11,000′ MSL or below; th descend direct so as to cross the route entry point 4 39′N, 95°16′W at 2800′ MSL; then at 2800′ MSL dire to 42°10′N, 94°33′W; then at 2600′ MSL direct to 41 00′N, 95°01′W; then at 2500′ MSL direct to 40°12′ 93°53′W; then at 2500′ MSL direct to 40°22′N, 93°27′





Short Look and Lay Down—After passing 40°22′N, 93°-27′W, aircraft shall maintain between 1300′ MSL and 3000′ MSL through the bomb run corridor (5 SM either side of centerline from 40°22′N, 93°27′W to 40°37′N, 92°43′W). The minimum IFR altitude through the corridor is 2500′ MSL. After exiting the route at 40°37′N, 92°43′W, aircraft shall turn left climbing so as to cross 40°48′N, 92°41′W at 9000′ MSL; then continue left turn maintaining 9000′ MSL to 40°42′N, 92°58′W; then climb so as to cross 40°30′N, 93°08′W at 14,000′ MSL or below; then continue climb direct to 40°28′N, 93°09′W; then climb direct so as to cross 40°19′N, 93°42′W at 23,000′ MSL; then at 23,000′ MSL direct to the St. Joseph, Missouri VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 40°37′N, 92°43′W, turn left and climb to or maintain 3000′ MSL to 40°50′N, 92°49′W; then at 3000′ MSL direct to 40°45′N, 93°30′W; then at 3000′ MSL direct to 40°59′N, 94°35′W; then turn left descending to intercept the Oil Burner Route at 40°48′N, 94°44′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°10′N, 94°33′W to 40°37′N, 92°43′W. During daylight hours, some VFR operations will be flown 500 feet above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800 feet above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Hours of Operation—24 hours daily 7 days per week.

FLINT ROCK

MONTANA/NORTH DAKOTA

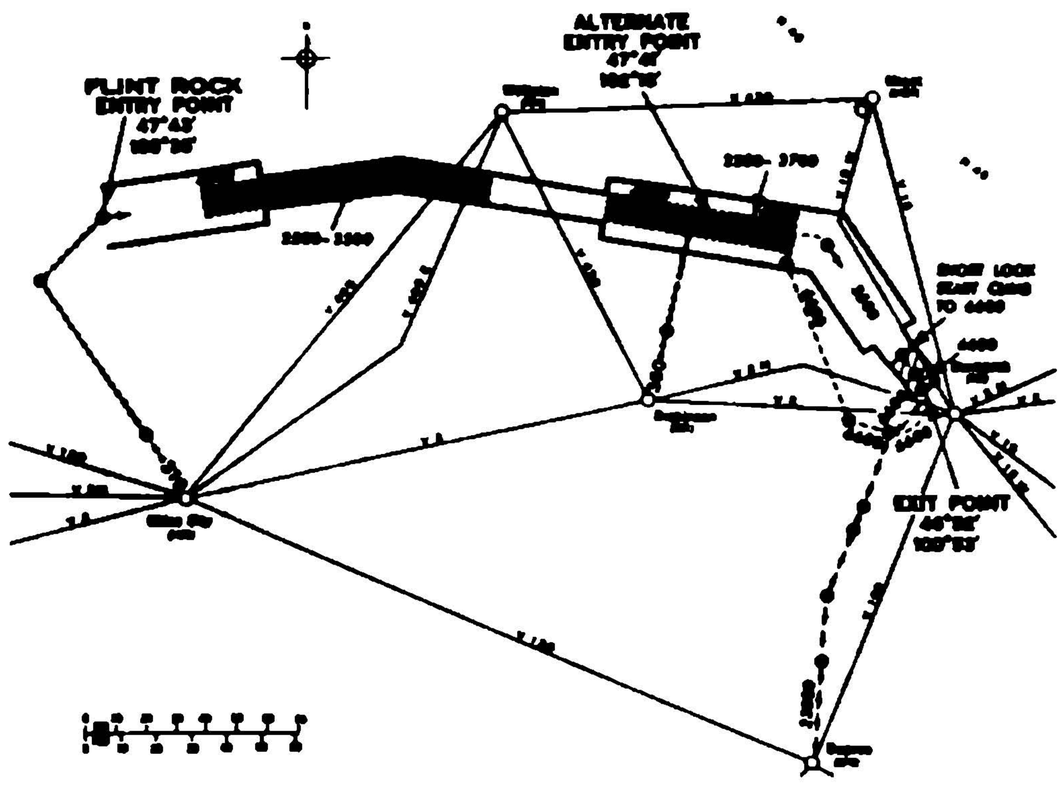
Effective June 14, 1964

Aircraft shall cross the Miles City, Mont. VORTAC (reporting point) at 23,000′ MSL, or as assigned by ARTCC, and proceed via the 310° radial, maintaining 23,000′ or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 5 SM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to 23,000′ MSL direct to 45°53′N, 101°35′W; direct to Dupree VORTAC, climbing so as to cross 46°19′N, 101°19′W at or above 11,000′ MSL, crossing 46°13′N, 101°23′W at or below 19,000′ MSL; crossing 45°53′N, 101°35′W at 21,000′ MSL, and to reach 23,000′ MSL at a point 30 nautical miles northeast of the Dupree VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an adltional Short Look bomb run shall, after passing 46°52′N, 100°53′W maintain 6600′ MSL direct 46°39′N, 101°07′W: then at 6600′ MSL make a right turn direct to 46°43′N, 101°24′W: then at 6600′ MSL direct 47°30′N, 101°49′W: then a right decending turn so as to reenter the route at 47°-35′N, 101°31′W at 3500′ MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 105°53′W to 47°53′N, 103°53′W and from 47°47′N, 103°03′W to 47°37′N, 101°45′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.



Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000′ MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000′ MSL, or assigned flight level/altitude, direct to a point 20 NM north of the Dickinson VORTAC; then descend so as to cross 47°42′-30′′N, 102°27′W at 6000′ MSL; then a descending right turn so as to cross 47°41′N, 102°18′W at 4000′ MSL, thence via the published route.

Route Width—The route width is reduced to 5 SM on either side of centerline from 47°50′N, 105°30′W to 47°-47′N, 103°03′W and from 47°07′N, 101°06′W to 46°52′N, 100°53′W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

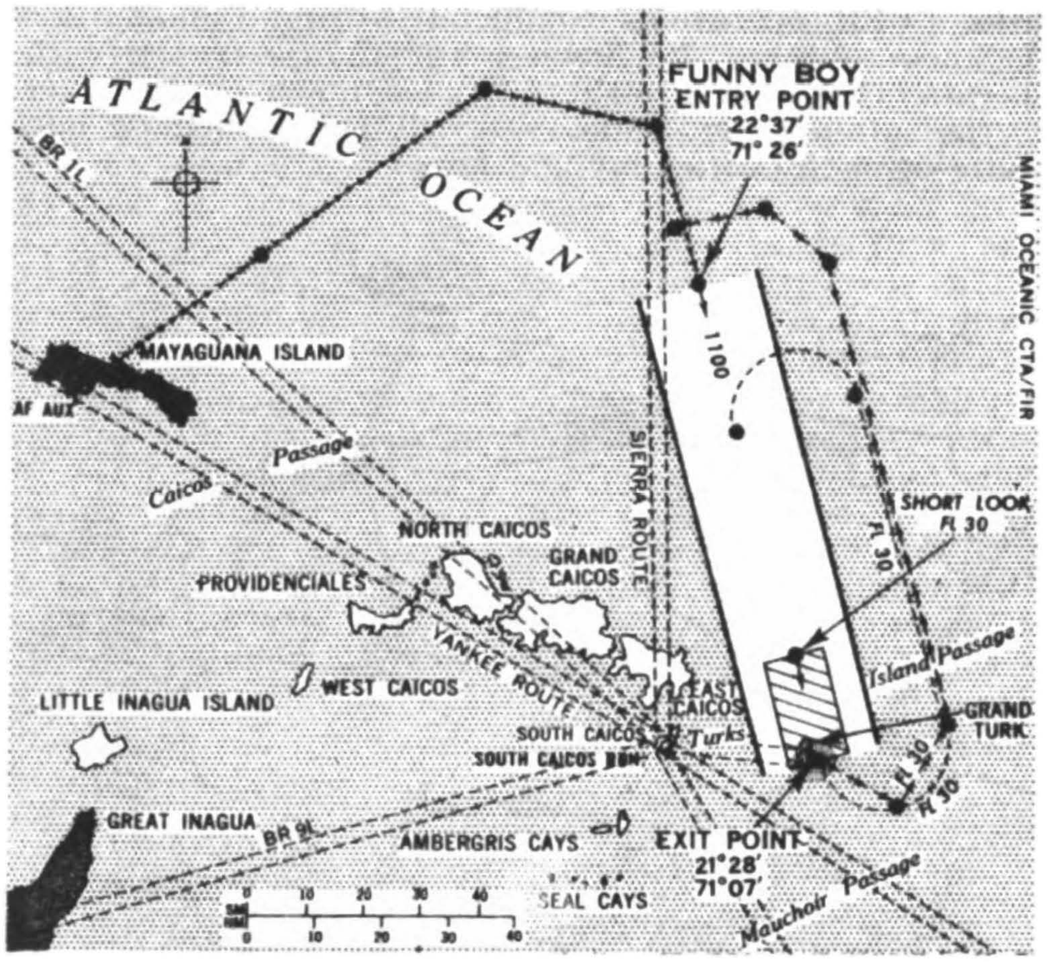
FUNNY BOY

Effective December 1, 1963

Aircraft shall cross 22°23′N, 73°02′W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned 22°41′N, 72°35′W (reporting point); start descent, cross 23°05′N, 72°00′W at FL 150; right turn, cross 23°00′N, 71°33′W at FL 90 or below; cross 22°37′N, 71°26′W at 1100′ MSL; the route entry point, maintain 1100′ MSL direct 21°43′N, 71°11′W.

Short Look—After passing 21°43′N, 71°11′W aircraft shall climb to FL 30 and maintain FL 30 through the bomb run corridor (5 SM either side of centerline from 21°43′N, 71°11′W to 21°28′N, 71°07′W). After exiting the low level route at 21°28′N, 71°07′W, maintain FL 30, direct 21°21′N, 70°54′W; direct 21°33′N, 70°47′W; start climb cross 22°40′N, 71°06′W at FL 250 or above; left turn to 22°48′N, 71°16′W; cross 22°45′N, 71°30′W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°28′N, 71°07′W; maintain FL 30; direct 21°21′N, 70°54′W; direct 21°-33′N, 70°47′W; direct 22°21′N, 71°01′W; left turn descend to cross 22°16′N, 71°20′W at 1100′ MSL; thence via "Funny Boy" route.



Hours of Operation—0000Z to 2359Z Monday through Saturday.

GOLDEN HOUR

GEORGIA/SOUTH CAROLINA

Effective July 1, 1964

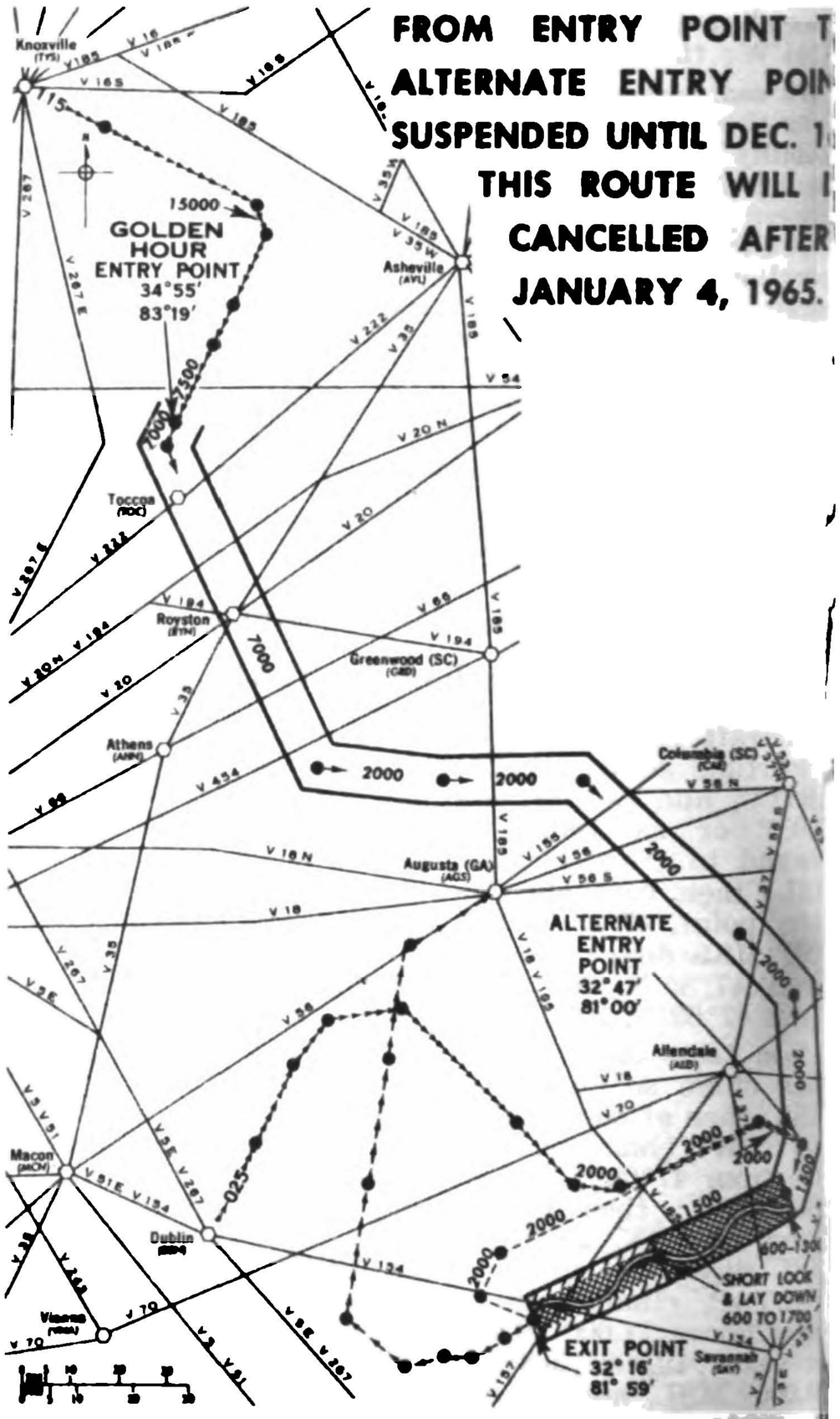
Aircraft shall cross the Knoxville, Tennessee VORTAC at FL 250 or as assigned; maintain assigned flight level via Knoxville VORTAC 115° radial until 16 miles southeast; start descent, cross 35°34′N, 83°02′W at 15,000′ MSL; right turn, direct 35°29′N, 83°00′W; cross 35°16′N, 83°07′W at 9000′; cross 35°09′N, 83°11′W at 7500′; maintain 7500′, enter low level route at 34°55′N, 83°19′W; descend, cross 34°51′N, 83°21′W at 7000′, maintain 7000′ direct 33°54′N, 82°47′W; left turn, descend to cross 33°-52′N, 82°20′W at 2000′, maintain 2000′ direct 33°52′N, 81°50′W; direct 33°25′N, 81°16′W; direct 33°14′N, 81°-02′W; direct 32°47′N, 81°00′W; right turn descend cross 32°38′N, 81°04′W at 1500′ MSL direct 32°27′N, 81°32′W.

Short Look and Laydown—After passing 32°27′N, 81°32′W aircraft shall maintain between 600′ and 1700′ MSL through bomb run corridor (5 SM either side of center line from 32°27′N, 81°32′W to 32°16′N, 81°59′W). The minimum IFR altitude thru the bomb run corridor shall be 1500′ MSL. After exiting the route at 32°16′N, 81°-59′W, aircraft shall climb and cross 32°13′N, 82°05′W at 2000′ MSL then climb and cross 32°10′N 82°12′W at 3000′ MSL, then climb and cross 32°10′N, 82°18′W at 6000′ MSL then climb and cross 32°08′N, 82°26′W at 7000′ MSL; cross 32°17′N, 82°39′W at 11,000′ MSL; right turn, cross 32°40′N, 82°35′W at 13,000′ MSL; cross 33°02′N, 82°31′W at 20,000′ MSL; cross 33°22′N, 82°-27′W at FL 250 or as assigned; maintain FL 250 or as assigned direct Augusta, Ga. VOR.

Re-Entry—Aircraft scheduled to execute an additiona bomb run shall, after exiting the low level route a 32°16′N 81°59′W aircraft shall climb to cross 32°20′ 82°10′W at 2000′ MSL; maintain 2000′ MSL right tur to 32°28′N, 82°06′W; direct 32°51′N, 81°11W right tur to intercept the Golden Hour Route at 32°47′N, 81°00′W

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility five miles, the pilot may descend VFR and ope ate between the VFR altitudes indicated on the cha between the following points: from 32°38N, 81°04′W 32°16′N, 81°59′W. During daylight hours some VF operations will be flown 500′ above the immediate te rain. VFR operations conducted during the hours darkness will not be flown lower than 800′ above th terrain. The lower VFR altitude shown on the cha is the minimum altitude that will be reached on ea route segment during daylight hours.

ENTRY TRACK AND ROU FROM ENTRY POINT T ALTERNATE ENTRY POIN SUSPENDED UNTIL DEC. 1 THIS ROUTE WILL B CANCELLED AFTER JANUARY 4, 1965.



Alternate Entry—Aircraft shall cross the Dublin, Ga VOR (32°31′05″N, 83°08′W) at FL 260 or as assigned start descent via Dublin VOR 025 degree radial: cros 32°47′N, 82°59′W at 23,000′ MSL; cross 33°01′N, 82° 51′W at 18,000′ MSL; cross 33°09′N, 82°44′W at 15,000 MSL; right turn cross 33°11′N, 82°28′W at 13,000′ MSL right turn, cross 32°51′N, 82°03′W at 5000′ MSL cros 32°40′N, 81°50′W at 2000′ MSL maintain 2000′ MSL lef turn to 32°39′N, 81°40′W direct 32°51′N, 81°11′W righ

turn to intercept the Golden Hour Route at 32°47′N, 81°00′W.

Route Width—The entire low level route width is reduced to 5 statute miles either side of centerline.

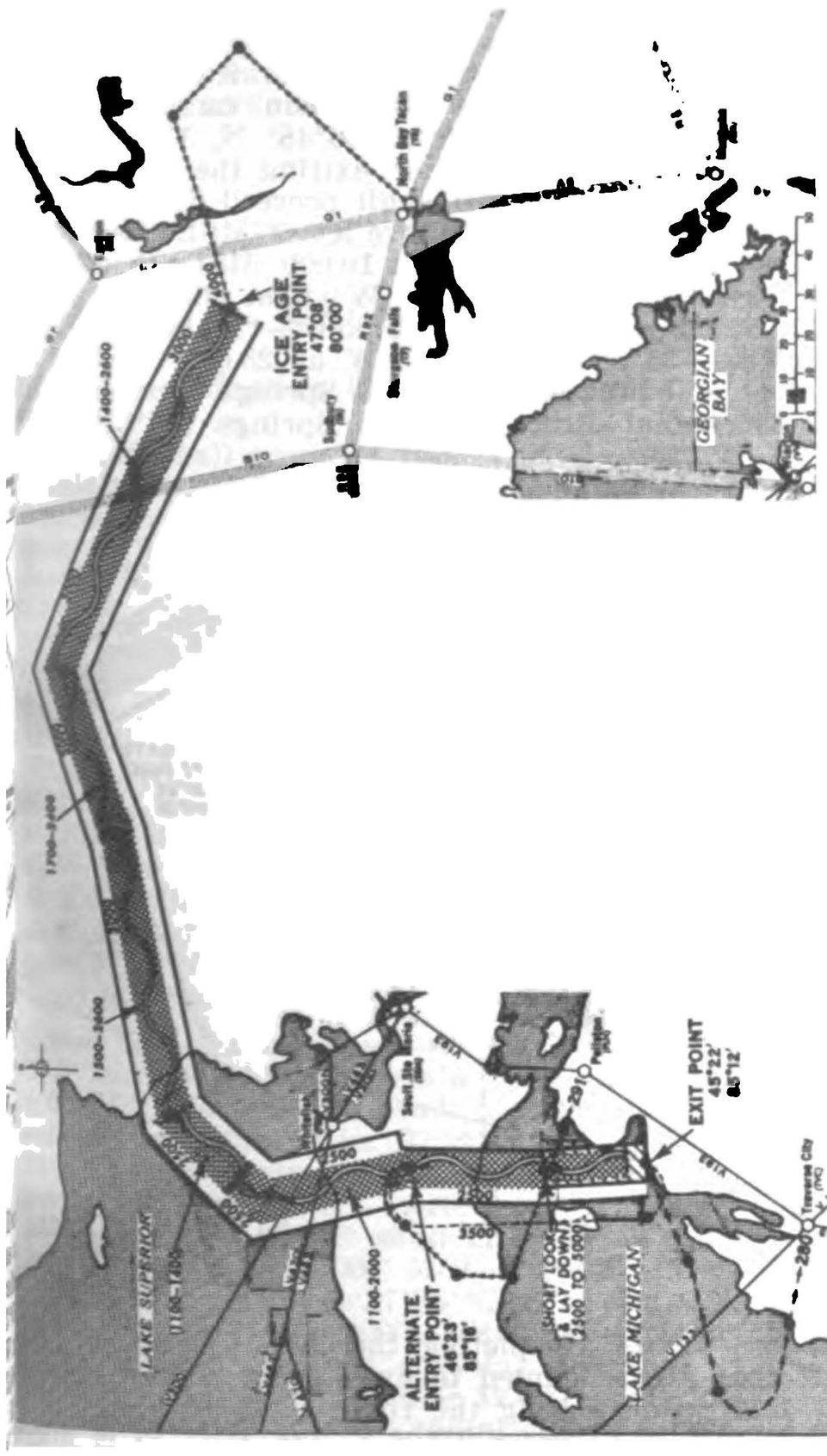
Hours of Operation—Primary Entry, 1900Z to 1300Z Monday thru Sunday; Alternate Entry, 0000Z to 2359Z, Monday thru Sunday.

MICHIGAN/ONTARIO, CAN.

ICE AGE

Effective September 6, 1964

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°-04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°-25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°-15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°-12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at 21,000′ MSL. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°-37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°08′N, 80°00′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000′ MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000′ MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 5 statute miles east of centerline from 46°23′N, 85°16′W to 45°-22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

LITTLE SATIN

Effective May 3, 1964

Aircraft shall cross 41°40′N, 115°49′W (Elko VOR-TAC 340°/55 NM DME fix) (reporting point) at 23,000′ MSL or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 019°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, 116°40′W, then 13,000′ MSL direct 38°31′N, 118°12′W.

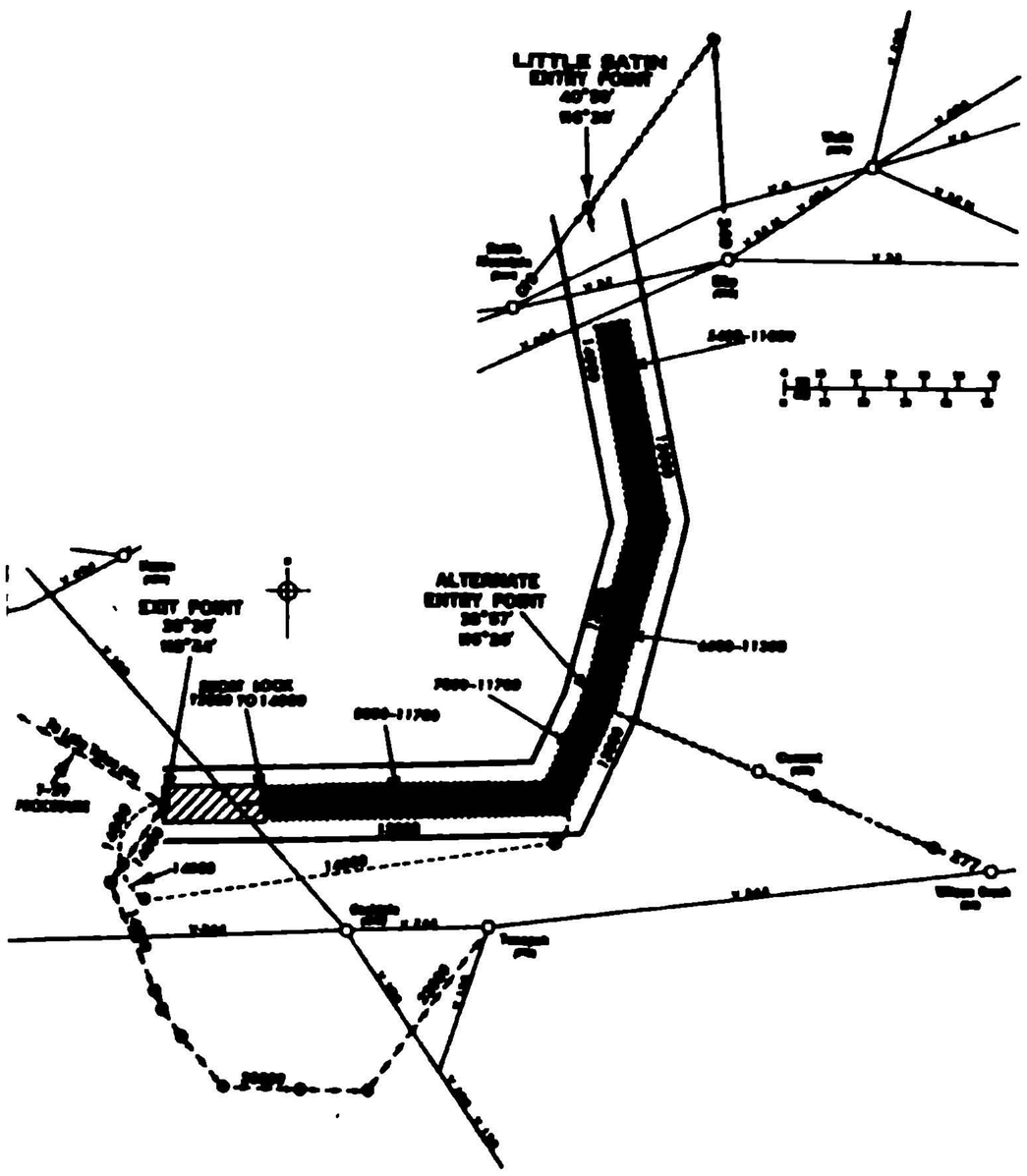
Short Look—After passing 38°31′N, 118°12′W aircraft shall operate between a maximum altitude of 14,000′ 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, bomb run corridor (5 SM either side of centerline from 38°31′N, 118°12′W to 38°30′N, 118°44′W). After exiting

the route at 38°30′N, 118°44′W aircraft shall maintain 14,000′ MSL direct 38°10′N, 119°00′W, then 14,000′ MSL direct 37°43′N, 118°46′W (reporting point "Little Satin 2"); then climb direct to cross 37°40′N, 118°43′W at or above 14,300′ MSL and 37°33′N, 118°37′W at or above 15,000′ MSL; then climb to 20,000′ MSL direct 37°21′N, 118°25′W, then 20,000′ MSL direct to 37°21′N, 118°-00′W (reporting point "Little Satin 3"); then climb direct to cross 37°21′N, 117°40′W at 23,000′ MSL, then 23,000′ MSL direct to Tonopah, Nev. VOR.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30′N, 118°44′W, maintain 14,000′ MSL direct 38°15′N, 118°57′W, then 14,000′ direct 38°06′N, 118°50′W (reporting point "Little Satin 1"), then 14,000′ MSL direct 38°23′N, 116°40′W; then descend to 13,000′ MSL direct to re-enter the route at 38°34′N, 116°40′W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 40°30′N, 116°22′W to 38°31′N, 118°12′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nev. VOR (reporting point) at 23,000′ MSL or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21′N, 114°41′W); then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.



T–29 Procedure—Aircraft shall cross Wilson Creek Nevada, VOR (38°15′N, 114°23′W) (reporting point) a assigned by the ARTCC; then proceed via alternate entr route to 38°30′N, 118°44′W exit point of the bomb ru corridor; then climb to 14,000′ MSL or as assigned b the ARTCC direct Lake Tahoe, California, VOR (39°11 N, 120°16′W).

Hours of Operation—24 hours daily, 7 days a week.

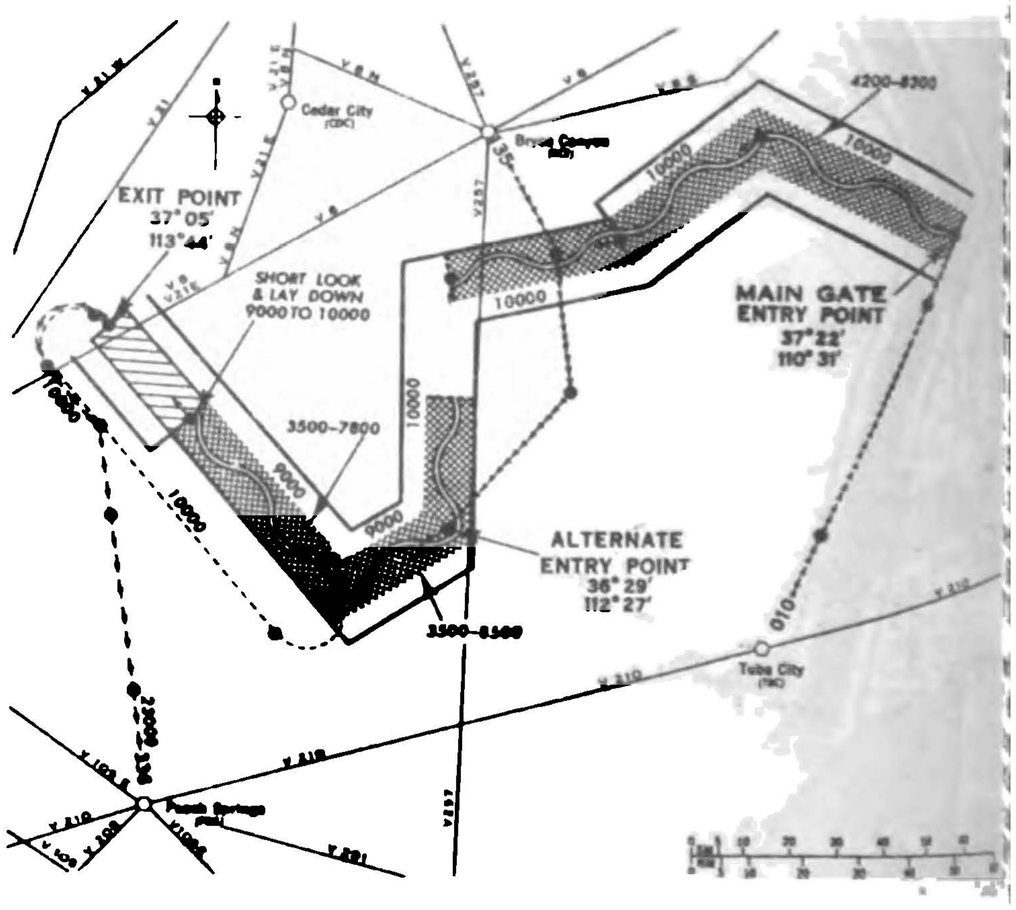
ARIZONA/UTAH

MAIN GATE

Effective May 17, 1964

Aircraft shall cross the Tuba City, Arizona VOR (36 07′30″ N, 111°16′ W) (reporting point) at 23,000′ MS or as assigned by ARTCC; then maintain assigned altitude via Tuba City 010 radial until 23 nautical mil north (36°28′ N, 111°04′ W); then descend direct t cross 37°10′ N, 110°39′ W at or above 12,000′ MSI then direct to cross 37°22′ N, 110°31′ W at 10,000′ MS (entry point of the low level route) then 10,000′ MS direct 37°41′N, 111°17′; then 10,000′ MSL direct 37 22′ N, 111°48′ W; then 10,000′ MSL direct 37°15′ N 112°27′ W; then 10,000′ MSL direct 36°29′ N, 112°2 W; then descend direct to cross 36°17′ N, 112°51′ W a 9,000′ MSL; then 9,000′ MSL direct 36°48′ N, 113°2 9000′ MSL; then 9000′ MSL direct 36°48′N, 113°25′W

Short Look and Lay Down—After passing 36°48′ N, 113° 25′W, aircraft shall operate between 9,000′ MSL an 10,000′ MSL through the bomb run corridor (5 SI either side of centerline from 36°48′ N, 113°25′ W t 37°05′ N, 113°44′ W). After exiting the route at 37 05′ N, 113°44′ W, aircraft shall proceed direct to cro 37°06′ N, 113°47′ W at or above 9,200′ MSL; then dire to cross 36°57′ N, 113°57′ W at 10,000′ MSL; then 10,00 MSL direct 36°46′ N, 113°45′ W; then climb via dire 36°30′ N, 113°42′ W (reporting point—"Main Gate 1") s as to cross 35°58′ N, 113°36′ W at 23,000′ MSL; the intercept and proceed via Peach Springs, Arizona VOI TAC 336 radial direct to Peach Springs (35°37′30″ N 113°32′ W).



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bom run shall after exiting the route at 37°05′N, 113°44′W proceed direct to cross 37°06′N, 113°47′W at or abov 9200′ MSL; then direct to cross 36°57′N, 113°57′W a

10,000' MSL; then 10,000' MSL direct 36°09'N, 113°05'W; then descend direct to cross 36°17'N, 112°51'W at 9000' MSL; then via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visbility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 37°22'N, 110°31'W to 37°15'N, 112°27'W and from 36°52'N, 112°27'W to 36°48'N, 113°25'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft cross the Bryce Canyon, Utah VOR (37°41'30"N, 112°18'W) (reporting point) at 23,000' MSL or as assigned by ARTCC; then proceed direct via Bryce Canyon 135 radial until 25 NM southeast (37°19'N, 112°02'W); then descend direct to cross 36°54'N, 112°-00'W at 14,000' MSL; then direct to cross 36°29'N, 112°-27'W at 10,000' MSL; thence via published route.

Hours of Operation—Twenty-four hours per day, seven days a week.

Route Width—The route width is reduced to 5 statute miles on the north side of course from 37°22'N, 111°48'W to 37°15'N, 112°27'W; 5 statute miles east side of course from 37°15'N, 112°27'W to 36°29'N, 112°27'W and 5 statute miles southwest of course from 36°17'N, 112°51'W to 36°48'N, 113°25'W.

KENTUCKY/TENNESSEE

ORANGE TREE

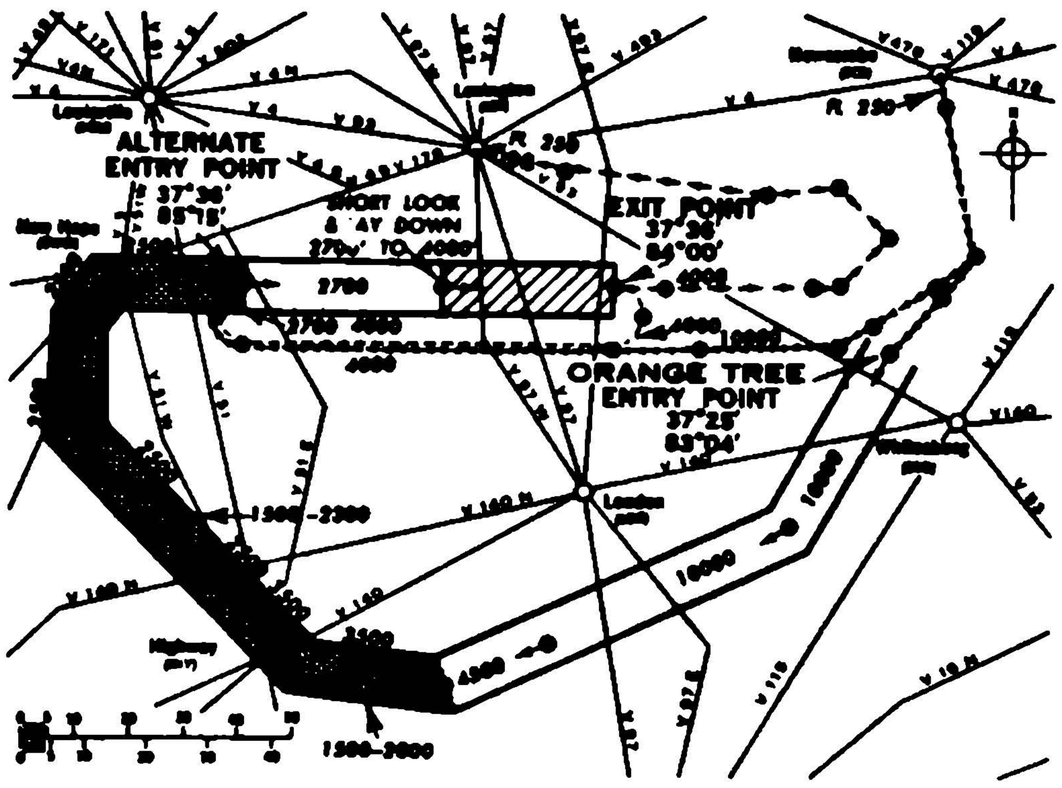
Effective November 1, 1964

Aircraft shall cross the Newcomb, Ky. VOR at FL 250; maintain FL 250 direct 38°05'N, 82°53'W; then start descend so as to cross 37°41'N, 82°48'W at 17,000' MSL; cross 37°34'N, 82°55'W at 14,000' MSL; then continue descent so as to cross 37°41'N, 82°48'W at 17,000' MSL; 83°04'W at 10,000' MSL, then at 10,000' MSL direct 36°-57'N, 83°25'W, then at 10,000' MSL direct 36°38'N, 84°13'W; then start descent so as to cross 36°31'N, 84°33'W at 4500' MSL; then descend so as to cross 36°-31'N, 84°36'W at 3500' MSL, then at 3500' MSL direct 36°34'N, 85°03'W, then at 3500' MSL direct 36°46'N, 85°16'W; then descend so as to cross 36°51'N, 85°22'W at 2500' MSL, then at 2500' MSL direct 37°11'N, 85°-47'W, then at 2500' MSL direct 37°30'N, 85°46'W, then at 2500' MSL turn right to 37°35'N, 85°42'W, then at 2500' MSL direct 37°36'N, 85°17'W; then climb so as to cross 37°36'N, 85°15'W at 2700' MSL, then at 2700' MSL direct to 37°36'N, 84°35'W.

Short Look and Lay Down—After passing 37°36'N, 84°-35'W aircraft shall maintain between 2700' MSL and 4000' MSL through the bomb run corridor (5 SM either side of centerline from 37°36'N, 84°35'W to 37°36'N, 84°00'W; the minimum IFR altitude thru the bomb run corridor is 2700' MSL). After exiting the route at 37°-36'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 4000' MSL; then at 4000' MSL direct 37°36'N, 83°20'W; then start climb direct 37°36'N, 83°15'W; cross 37°44'N, 83°05'W at or below 9000' MSL; continue climb direct 37°52'N, 83°15'W; then climbing direct so as to cross 37°51'N, 83°30'W at or below 17,000' MSL; then via the Lexington VORTAC 098° radial climbing so as to cross 37°56'N, 84°11'W (Lexington VORTAC 098/14) at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36'N, 84°00'W, turn right so as to cross 37°31'N, 83°55'W at 4000' MSL, then at 4000' MSL continue right turn to 37°26'N, 84°-00'W, then at 4000' MSL direct 37°26'N, 85°15'W; then turn right descending so as to cross 37°31'N, 85°20'W at 2700' MSL, then at 2700' MSL continue right turn to 37°36'N, 85°15'W, thence via the "ORANGE TREE" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 36°31'N, 84°33'W to 37°36'N, 85°15'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.



Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53'W; then start descent so as to cross 37°41'N, 82°48'W at 17,000' MSL; cross 37°35'N, 82°56'W at 14,000' MSL; cross 37°29'N, 83°08'W at 10,000' MSL; then at 10,000' MSL direct 37°26'N, 83°15'W; direct 37°26'N, 83°42'W; then start descent so as to cross 37°26'N, 84°00'W at 4000' MSL; then at 4000' MSL direct to 37°26'N, 85°-15'W; then turn right descending so as to cross 37°31'N, 85°20'W at 2700' MSL; then at 2700' MSL direct to 37°36'N, 85°15'W; thence via the established route.

Route Width—The route width is reduced to 5 statute miles on either side of centerline throughout the entire route.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

COLORADO/NEBRASKA/WYOMING

POOL SHARK

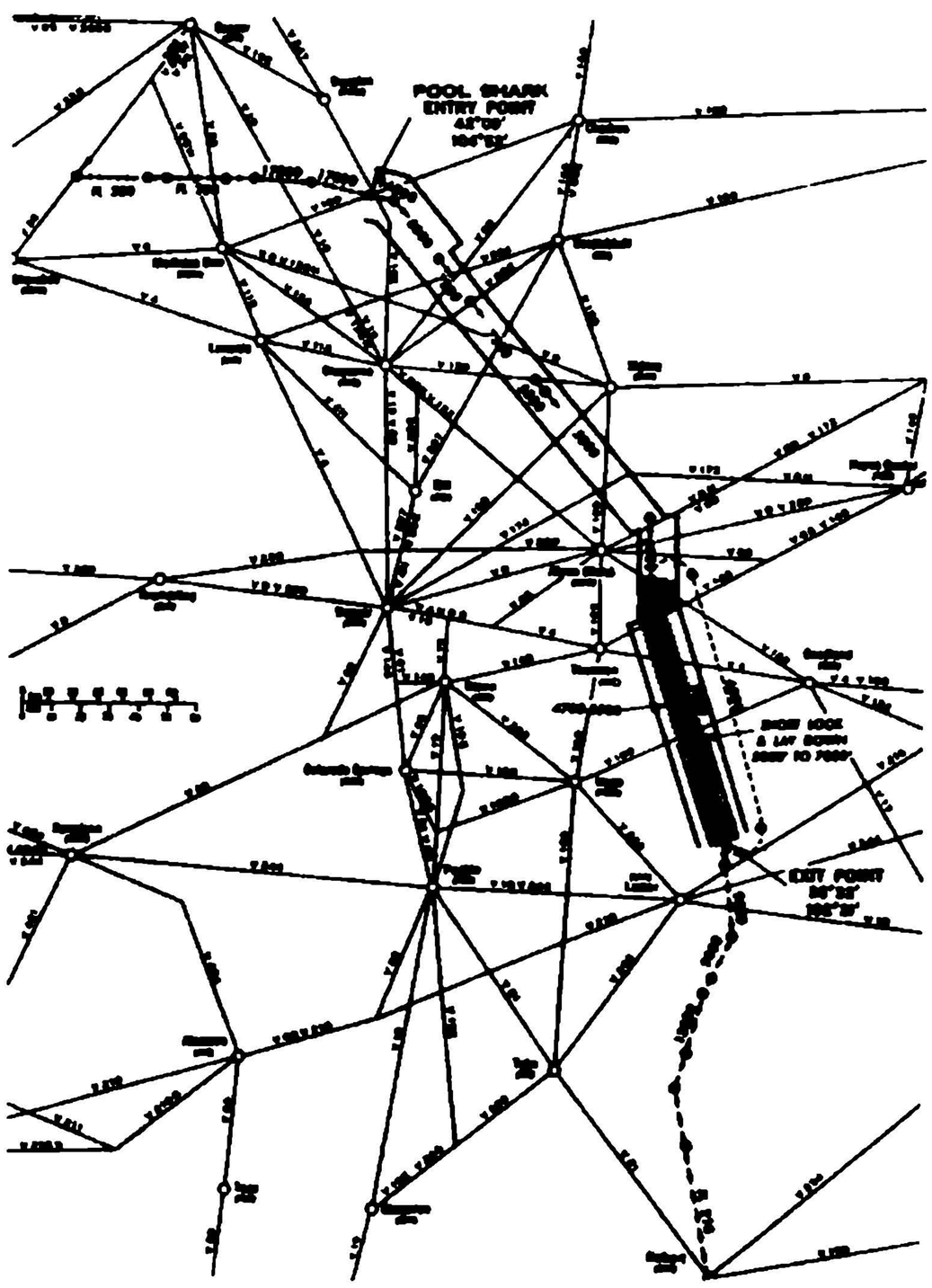
Effective January 4, 1965 through June 26, 1965

Aircraft shall cross 42°14'N, 107°07'W (Casper, Wyoming, VORTAC 201/63) at FL 220; then direct 42°14'N, 106°35'W; then descend direct to cross 42°14'N, 106°26'W at FL 200; then maintain FL 200 direct 42°-

14′N, 105°59′W; then descend direct to cross 42°14′N, 105°46′W at 17,000′ MSL; then maintain 17,000′ MSL direct 42°13′N, 105°20′W, then maintain 17,000′ MSL direct to the route entry point at 42°09′N, 104°53′W, then descend direct to cross 42°07′N, 104°42′W at 16,000′ MSL; then descend direct to cross 41°47′N, 104°22′W at 8000′ MSL; then descend direct to cross 41°33′N, 104°-08′W at 7300′ MSL; then direct 41°07′N, 103°39′W; then descend direct to cross 41°03′N, 103°35′W at 5800′ MSL; then 5800′ MSL direct 40°20′N, 102°49′W; then 5800′ MSL direct 39°47′N, 102°49′W; then 5800′ MSL direct 39°05′N, 102°33′W.

Short Look and Lay Down—After passing 39°05′N, 102°-33′W, aircraft shall maintain between 5800′ MSL and 7000′ MSL through the bomb run corridor (5 SM either side of centerline from 39°05′N, 102°33′W to 38°32′N, 102°21′W). After exiting the route at 38°32′N, 102°-21′W; aircraft shall climb direct to cross 38°24′N, 102°-20′W at 9000′ MSL; then maintain 9000′ MSL direct 37°59′N, 102°18′W; then 9000′ MSL direct 37°45′N, 102°27′W; then climb direct to cross 37°40′N, 102°31′W at 12,000′ MSL; then 12,000′ MSL direct 37°20′N, 102°-39′W; then climb direct to cross 37°09′N, 102°44′W at or above 16,000′ MSL; then climb direct to cross 36°-49′N, 102°40′W at FL 210; then maintain FL 210 direct to Dalhart, Texas, VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°32′N, 102°21′W, turn left to cross 38°35′N, 102°04′W at 6000′ MSL; then 6000′ MSL direct to 40°00′N, 102°31′W; then turn left to cross 40°00′N, 102°49′W at 5800′ MSL, thence via the published route.



Alternate Entry—None.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart bewteen the following points 40°00′N, 102°49′W to 38°-32′N, 102°21′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Route Width—The route width is reduced to 5 SM on the NE side of the centerline from 41°47′N, 104°22′W to 40°20′N, 102°49′W, and to 5 SM on the west side of centerline from 40°20′N, 102°49′W to 39°47′N, 102°49′W.

Hours of Operation—24 hours daily, 7 days per week.

ARIZONA/NEW MEXICO

PRIMA DONNA

Effective October 5 thru December 23, 1964

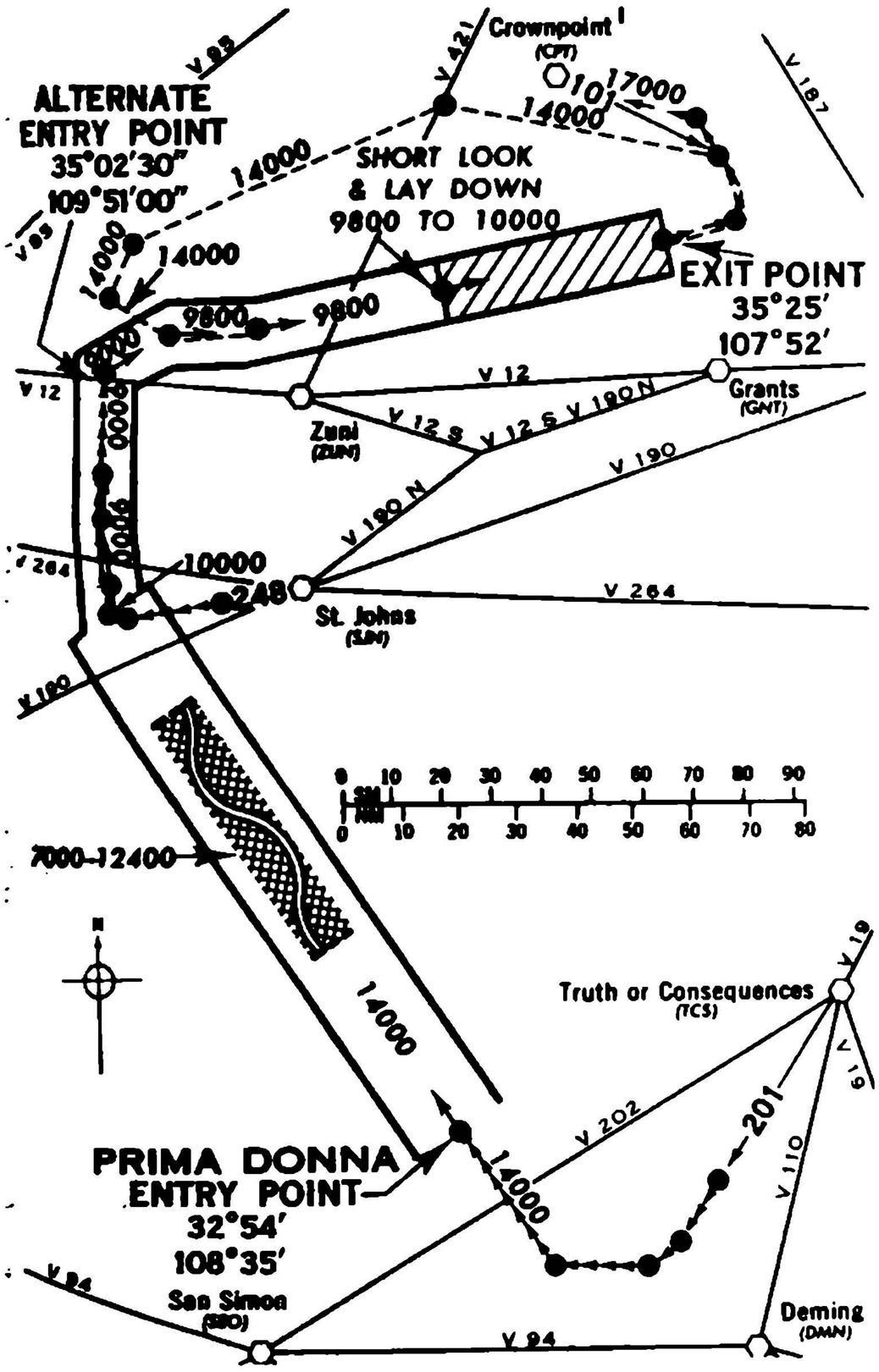
Aircraft shall cross the Truth or Consequences, N. Mex VORTAC 201° radial, 38 NM fix (32°45′N, 107°42′W) at FL 250 or as assigned by Albuquerque ARTC Center, descend southwestbound via the Truth or Consequences N. Mex. 201° radial to 32°35′N, 107°50′W, turn right to 32°31′N, 107°57′W direct to cross 32°31′N, 108°16′W at 14,000′ MSL; maintain 14,000′ MSL direct to 32°54′N 108°35′W, (Route entry point); maintain 14,000′ MSL direct to 34°22′N, 109°49′W; start descent to cross 34°-26′N, 109°49′W at or above 10,000′ MSL; direct to cross 34°38′N, 109°50′30″W at 9000′ MSL; maintain 9000′ MSL direct to 35°02′30″N, 109°51′W, turn right at 9000′ MSL to 35°09′30″N, 109°37′W; climb direct to cross 35°-10′N, 109°18′W at 9800′ MSL; maintain 9800′ MSL direct to 35°17′N, 108°38′W.

Short Look and Lay Down—After passing 35°17′N, 108°-38′W, aircraft shall maintain between 9800′ MSL and 10,000′ MSL through the bomb run corridor (5 SM either side of centerline from 35°17′N, 108°38′W to 35°25′N 107°52′W). After exiting the route at 35°25′N, 107°52′W aircraft shall climb direct to cross 35°28′N, 107°37′W at 11,000′ MSL; turn left climbing to intercept the Crownpoint, N. Mex. VOR 101° radial, then climb via the Crownpoint VOR 101° radial so as to cross 35°39′N 107°40′W at 15,000′ MSL; then climb direct so as to cross 35°42′N, 107°46′W at 17,000′ MSL; then at 17,000′ MSL direct to the Crownpoint VOR.

Re-Entry—After completing the initial short look bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 35°25′N, 107°-52′W, climb to 11,000′ MSL direct to 35°28′N, 107°37′W turn left climb to cross 35°39′N, 107°40′W, at 14,000′ MSL, maintain 14,000′ MSL direct to 35°48′N, 108°38′W 14,000′ MSL direct to 35°24′N, 109°45′W, turn left at 14,000′ MSL to 35°15′N, 109°50′W, turn left at 14,000′ MSL to 35°09′30″N, 109°37′W; descend direct to cross 35°10′N, 109°18′W at 9800′ MSL thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal or better than ceiling 9000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 33°26′N, 109°01′W to 34°05′N, 109°34′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.

Alternate Entry—Aircraft shall cross the St. Johns, Arizona VORTAC at 15,000′ MSL or as assigned by Albuquerque ARTC Center, maintain assigned altitude via the St. Johns VORTAC 248° radial to the 13 NM DME fix; then descend via the St. Johns 248° radial to cross 34°21′30″N, 109°44′30″W at 10,000′ MSL; then at 10,000′ MSL turn right to 34°38′N, 109°50′30″W; then descend direct so as to cross 34°44′N, 109°51′W at 9000′ MSL; then at 9000′ MSL direct to 35°02′30″N, 109°51′W; thence via the published route.



Route Width—The route width from 34°22′N, 109°49′W to 35°25′N, 107°52′W is reduced to 5 SM on both sides of course.

Hours of Operation—1900Z to 1500Z, 7 days per week.

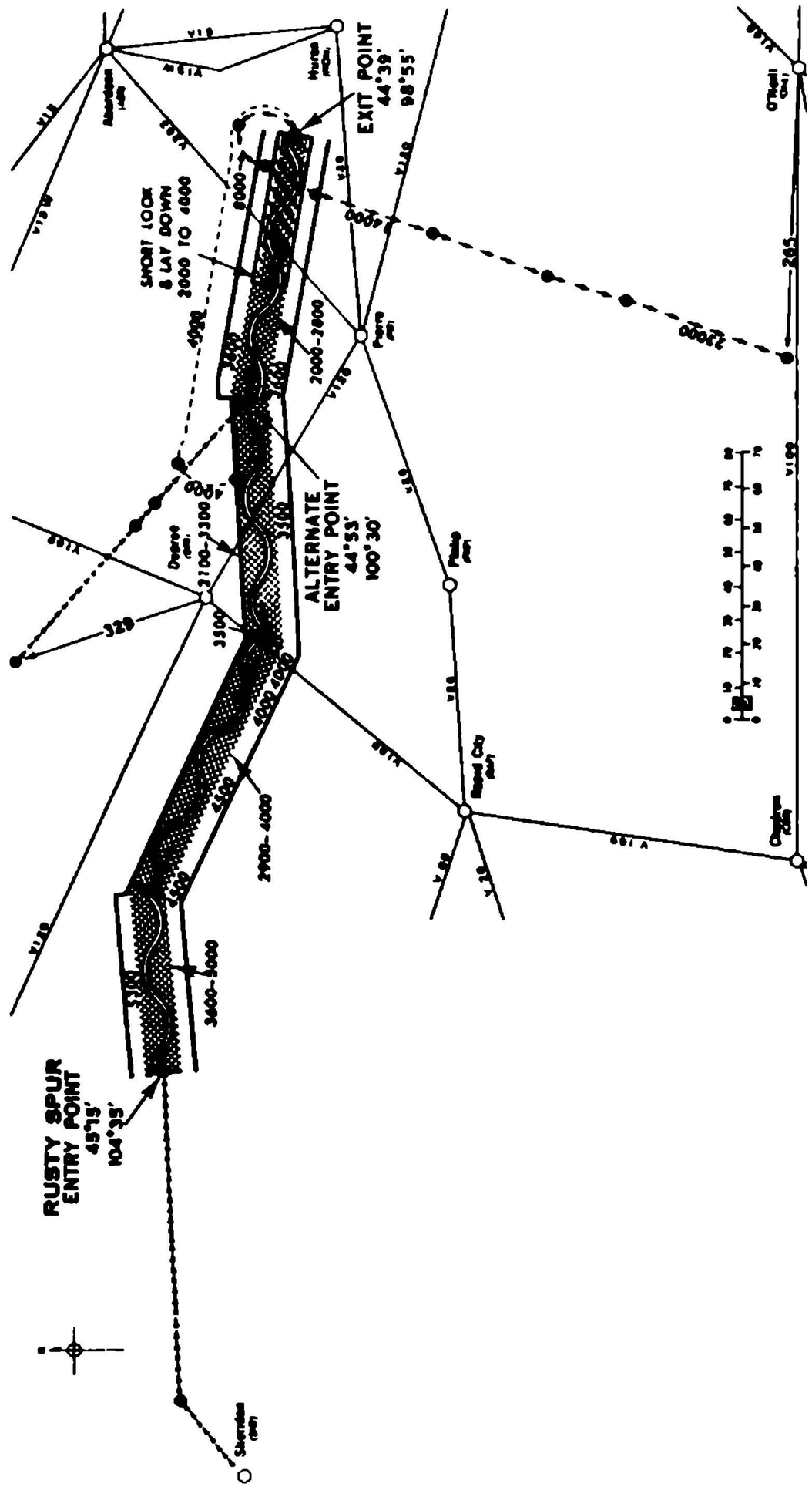
MONTANA/SOUTH DAKOTA

RUSTY SPUR

Effective October 18 thru December 23, 1964

Aircraft shall cross the Sheridan, Wyoming VORTAC at 23,000′ MSL or assigned by ARTCC; maintain 23,000′ MSL or assigned altitude direct to 45°08′N, 106°36′W; then start descent so as to cross the route entry point at 45°15′N, 104°35′W at 5300′ MSL; then at 5300′ MSL direct to 45°20′N, 103°30′W; then descend so as to cross 45°18′N, 103°23′W at 4500′ MSL; then at 4500′ MSL direct 44°57′N, 102°20′W; then descend direct so as to cross 44°55′N, 102°14′W at 4000′ MSL; then at 4000′ MSL direct to 44°50′N, 102°00′W; then descend direct so as to cross 44°50′N, 101°55′W at 3500′ MSL; then at 3500′ MSL direct to 44°53′N, 100°30′W; then climb so as to cross 44°53′N, 100°23′W at 3600′ MSL; then at 3600′ MSL direct to the entry point of the bomb run corridor at 44°47′N, 99°49′W.

Short Look and Lay Down—After passing 44°47′N, 99°49′W, aircraft shall maintain between 2000′ MSL and 4000′ MSL through the bomb run corridor (5 SM either side of centerline from 44°47′N, 99°49′W to 44°39′N, 98°55′W), the minimum IFR altitude through the bomb run corridor is 3600′ MSL. After exiting the route at 44°39′N, 98°55′W, aircraft shall turn left climbing so as to cross 44°52′N, 98°51′W at 8000′ MSL; then at 8000′ MSL continue left turn direct 44°47′N, 99°06′W; then start climb direct so as to cross 44°35′N, 99°17′W at 14,000′ MSL; then at 14,000′ MSL; direct 44°05′N,



99°33′W then start climb direct O'Neil, Nebraska VORTAC 265/74 (42°35′N, 100°21′W); crossing 43°36′N, 99°49′W at or above 20,000′ MSL; crossing 43°16′N, 100°00′W at 23,000′ MSL; then maintain 23,000′ MSL to O'Neil 265/74.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 44°39′N, 98°55′W turn left and climb to or maintain 4000′ MSL to 44°52′N, 98°51′W; then at 4000′ MSL direct to 45°11′N, 100°55′W; then at 4000′ MSL turn left to 44°57′N, 101°00′W; then at 4000′ MSL direct 44°53′N, 100°30′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 45°15′N, 104°35′W to 44°39′N, 98°55′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached during daylight hours.

Alternate Entry—Aircraft shall cross the Dupree, South Dakota VORTAC 329/53 (45°55′N, 102°06′W) at 20,000′ MSL or below as assigned by ARTCC; then descend direct so as to cross 45°23′N, 101°16′W at 16,000′ MSL; then descend so as to cross 45°18′N, 101°08′W at or above 14,000′ MSL; then descend direct so as to cross 44°53′N, 100°30′W at 3500′ MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM on the north side of centerline from 45°20′N, 103°30′W to 44°53′N, 100°30′W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

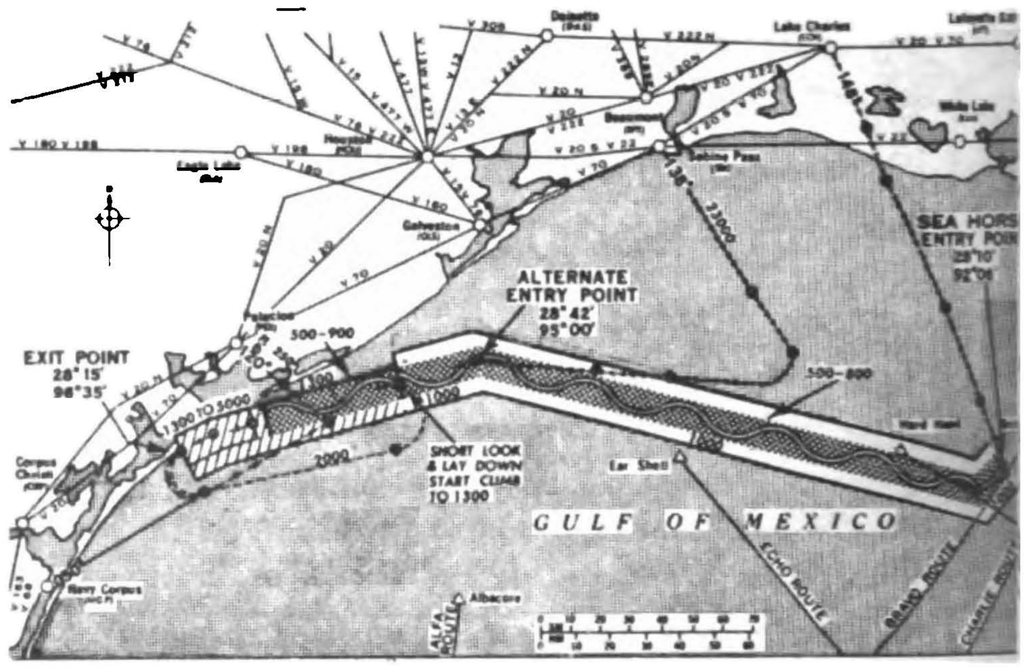
SEA HORSE

Effective July 12, 1964

Aircraft shall cross the Lake Charles, La., VOR at 23,000′ MSL, or as assigned; maintain 23,000′ MSL or as assigned via the Lake Charles VOR 148° radial to to 25 NM fix; start descent, cross 29°31′N, 92°47′W at 19,000′ MSL, descend direct to cross 28°55′N, 92°28′W at 15,000′ MSL, descend direct to cross 28°28′N, 92°15′W at 8000′ MSL or below, descend direct to cross 28°10′N, 92°06′W at 1000′ MSL (Low level entry point). Maintain 1000′ MSL, turn right to 28°03′N, 92°16′W, direct to 28°42′N, 95°00′W, direct to 28°35′N, 95°25′W.

Short Look and Lay Down—After passing 28°35′N, 95°-ridor (5 SM either side of centerline from 28°23′N, 25′W climb to 1100′ MSL direct 28°23′N, 96°12′W. After passing 28°23′N, 96°12′W aircraft shall maintain between 500′ and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 28°23′N, 96°12′W direct 28°20′N, 96°25′W direct 28°15′N, 96° 35′W). (The minimum IFR altitude through the bomb run corridor is 1100′ MSL) to 28°15′N, 96°35′W, the route exit point, turn left to intercept the Navy Corpus VOR 050 radial (reporting point); then climb via the Navy Corpus VOR 050 radial to intercept the Palacios, Texas VOR 120 radial at 18,000′ MSL or above. Climb via the Palacois VOR 120 radial so as to reach FL 250 at a point 18 NM southeast of the Palacios VOR, cross the Palacios VOR at FL 250.

Re-Entry—After completing the initial Short Look bom run, aircraft that are scheduled to execute an addition bomb run shall, after exiting the route at 28°15′N, 96 35′W turn left to intercept the Navy Corpus VOR 05 radial at 2000′ MSL, maintain 2000′ MSL direct 28 22′N, 95°26′W; turn left descending so as to cross 28 35′N, 95°25′W at 1100′ MSL, thence via the publish route.



VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and opera between the VFR altitudes indicated on the chart b tween the following points: From 28°10′N, 92°06′W t 28°24′N, 96°09′W. During daylight hours, some VF operations will be flown 500′ above the immediate te rain. VFR operations conducted during the hours darkness will not be flown lower than 800′ above th terrain. The lower VFR altitude shown on the chart the minimum altitude that will be reached during da light hours.

Alternate Entry—Aircraft shall cross the Sabine Pas VOR at 23,000′ MSL or as assigned, then via Sabine Pas VOR 138° radial maintaining 23,000′ MSL until the 4 NM fix (29°02′N, 93°33′W). Start descent direct to cros 28°44′N, 93°19′W at 16,000′ MSL turn right, descend t cross 28°37′N, 93°58′W at 4000′ MSL; descend direc to cross 28°39′N, 94°21′W at 1000′ MSL direct 28°42′N 95°00′W thence via published route.

Route Width—The route width is reduced to 5 SM nort of the centerline from 28°35′N, 95°25′W to 28°15′N 96°35′W.

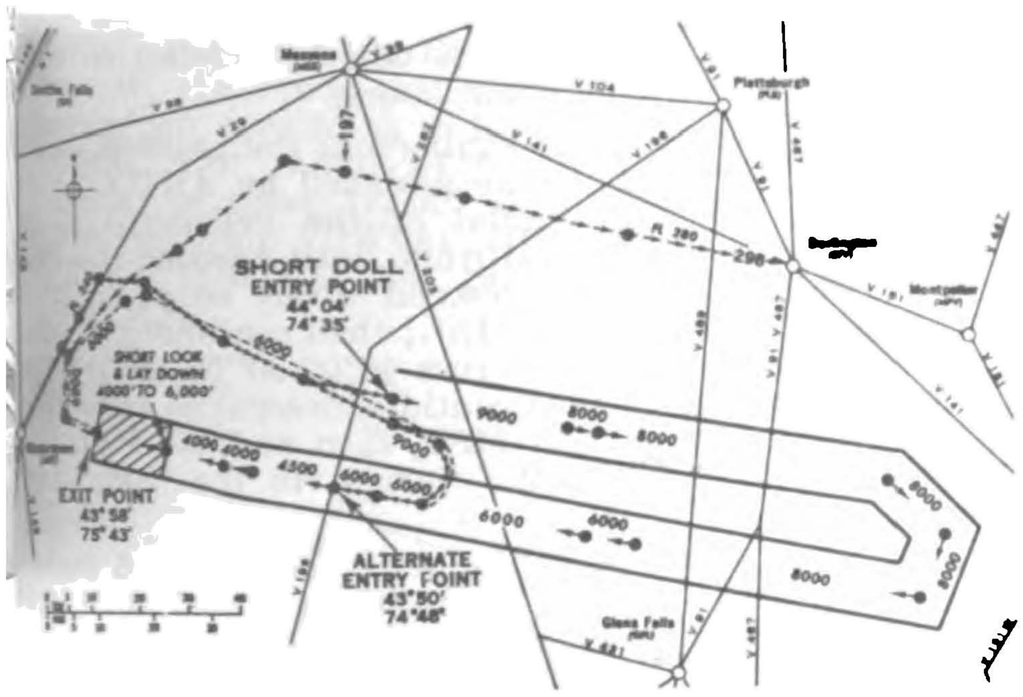
Hours of Operation—24 hours daily, seven days per week

NEW YORK/VERMONT

SHORT DOLL

Effective September 6, 1964

Aircraft shall cross 43°57′N, 76°04′W (Watertown, New York VOR) at FL 290; descend, cross 44°11′N, 75°52′W at FL 250 or above ; cross 44°16′N, 75°47′W at FL 240; direct 44°22′N, 75°42′W; cross 44°22′N, 75°30′W at 19,000′; cross 44°13′N, 75°12′W at 14,000′; cross 44°07′N, 74°54′W below 12,000′; cross 44°04′N, 74°35′W, the entry point to the low level route, at 9000′; maintain 9000′ direct 43°59′N, 73°58′W; descend, cross 43°58′N, 73°52′W at 8000′; maintain 8000′ direct 43°-50′N, 72°52′W; direct 43°41′N, 72°40′W; direct 43°31′N, 72°46′W; direct 43°40′N, 73°45′W; descend, cross 43°-42′N, 73°56′W at 6000′ MSL; direct 43°50′N, 74°48′W; descend, cross 43°52′N, 75°05′W at 4500′ MSL; descend, cross 43°53′N, 75°11′W at 4000′ MSL, maintain 4000′ MSL direct to the entry point of the bomb run corridor at 43°55′N, 75°25′W.



Short Look and Lay Down—After passing 43°55′N, 75°-25′W aircraft shall operate through the bomb run corridor between 4000′ and 6000′ MSL (the bomb run corridor is 5 SM either side of centerline from 43°55′N, 75°25′W to 43°58′N, 75°43′W). After exiting the low level route at 43°58′N, 75°43′W aircraft shall cross 44°-00′N, 75°51′W at 6000′ MSL, maintain 6000′ MSL direct 44°10′N, 75°51′W; direct 44°27′N, 75°22′W; climb, cross 44°30′N, 75°17′W at 13,000′ or below; cross 44°41′N, 74°58′W at 15,000′ or above (Burlington, Vt. VOR 298 radial); direct (via Burlington VOR 298 radial) cross 44°39′N, 74°45′W at 19,000′ (Massena, N.Y. VOR 197 radial); continue climb, cross 44°35′N, 74°19′W at 23,000′; cross 44°29′N, 73°45′W at FL 280, maintain FL 280, direct 44°24′N, 73°11′W (Burlington, Vt. VOR).

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°58′N, 75°43′W; cross 44°00′N, 75°51′W at 6000′; maintain 6000′ direct 44°10′N, 75°51′W; direct 44°19′N, 75°35′W; direct 44°20′N, 75°30′W; direct 43°-57′N, 74°26′W; right turn to 43°47′N, 74°30′W; thence via the "Short Doll" route.

Alternate Entry—Aircraft shall cross 43°57′N, 76°04′W (Watertown, N.Y. VOR) at FL 290; descend, cross 44°-11′N, 75°52′W at FL 250 or above; cross 44°16′N, 75°-47′W at FL 240, direct 44°22′N, 75°42′W; cross 44°22′N, 75°30′W at 19,000′; cross 44°13′N, 75°12′W at 14,000′; cross 44°07′N, 74°54′W below 12,000′; cross 44°00N, 74°35′W at 9000′; maintain 9000°, direct 43°57′N, 74°-26′W; right turn to 43°47′N, 74°30′W; descend, cross 43°48′N, 74°39′W at 7000′ or below; cross 43°50′N, 74°-48′W at 6000′; thence via the "Short Doll" route.

Route Width—The entire low level route is reduced to 5 SM either side of centerline.

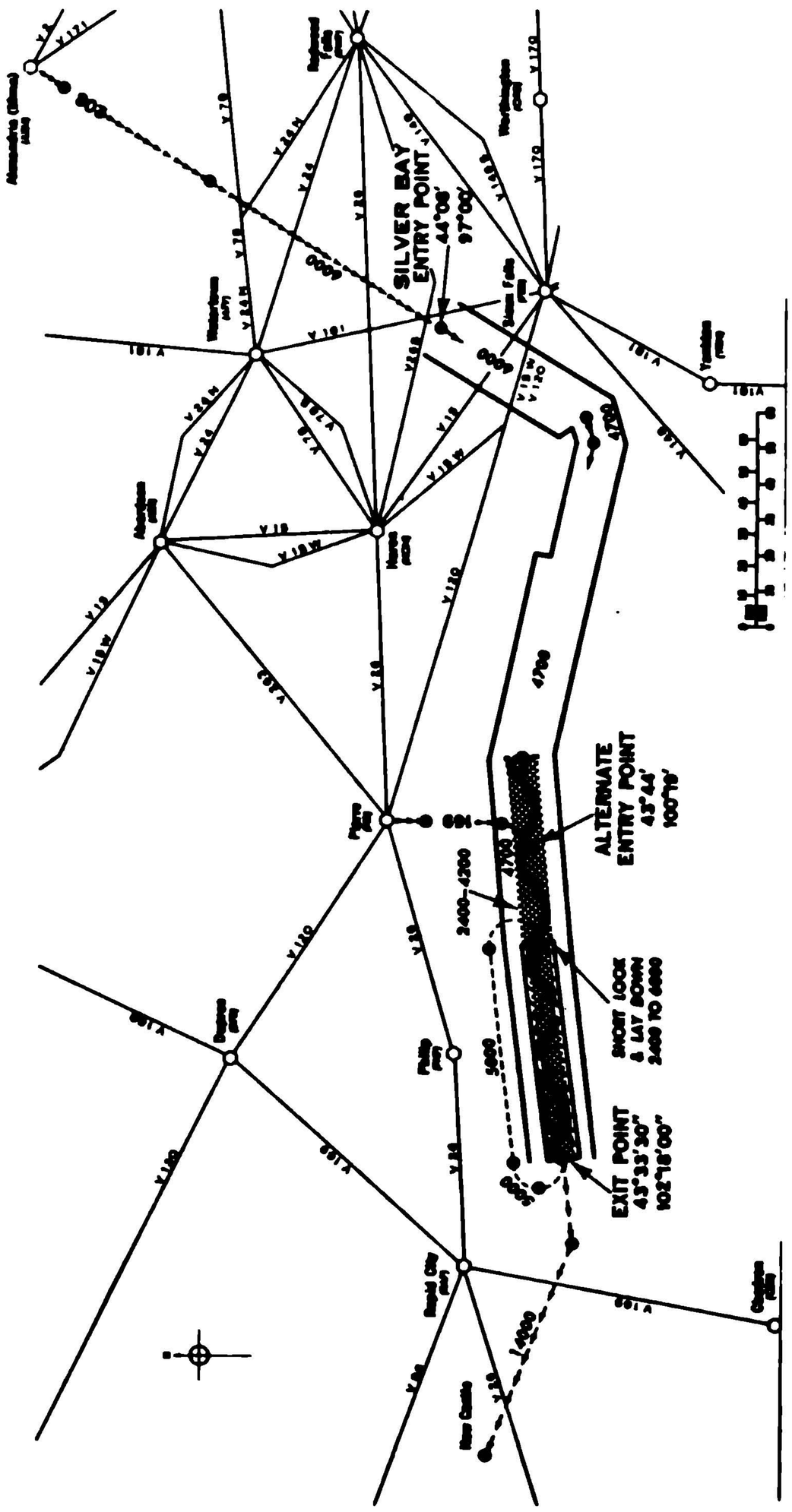
Hours of Operation—0000Z to 2359Z, Monday thru Sunday.

SOUTH DAKOTA

SILVER BAY

Effective October 18, 1964

Aircraft shall cross the Alexandria, Minn. VOR at 20,000′ MSL or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining 20,000′ MSL or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10′N, 96°00′W at 6000′ MSL; then at



6000′ MSL direct 44°08′N, 97°00′W (low level entry point); then at 6000′ MSL direct 43°29′N, 97°35′W; then turn right descending so as to cross 43°27′N, 97°45′W at 4700′ MSL; then at 4700′ MSL direct 43°47′N, 99°45′W; then at 4700′ MSL direct to 43°42′N, 100°56′W.

Short Look and Lay Down—After passing 43°42′N, 100°-56′W, aircraft shall maintain between 2400′ MSL and 6000′ MSL through the bomb run corridor (5 SM either side of centerline from 43°42′N, 100°56′W to 43°33′-30″N, 102°18′W). The minimum IFR altitude through the corridor is 4700′ MSL. After exiting the route at 43°33′30″N, 102°18′W aircraft shall climb so as to cross 43°30′N, 102°50′W at 14,000′ MSL; then at 14,000′ MSL direct to 43°51′N, 104°13′W. (New Castle, Wyoming)

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33′30″N, 102°18′W turn right and climb or descend so as to cross 43°40′N, 102°29′W, at 5000′ MSL; then at 5000′ MSL continue turn to 43°47′N, 102°20′W; then at 5000′ MSL direct 43°55′N, 100°58′W; then turn right descending so as to intercept the Silver Bay route at 43°42′N, 100°56′W at 4700′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 43°47′N, 99°45′W to 43°33′30″N, 102°18′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operation conducted during the hours of darkness will not be flonw lower than 800′ above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000′ MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 169° radial maintaining 15,000′ MSL or assigned altitude until 10 NM south (44°13′N, 100°10′W); then descend direct to 43°52′N, 100°10′W; then turn right descending so as to cross 43°44′N, 100°19′W at 4700′ MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM north of centerline between 43°29′N, 97°35′W to 43°35′N, 98°-30′W.

Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND

Effective September 6, 1964

Aircraft shall cross the Houghton, Michigan VOR at 20,000′ MSL or as assigned by ARTCC; then descend direct so as to cross 47°10′N, 89°20′W at 11,000′ MSL; then turn right continuing descent so as to cross the route entry point at 47°40′N, 89°20′W at 2400′ MSL, then at 2400′ MSL direct 47°52″N, 89°20′W, then at 2400′ MSL direct 47°48′N, 88°55′W; then descend to 2000′ MSL direct 47°35′N, 87°25′W; then descend to 1700′ MSL direct 46°49′N, 86°06′W; then climb so as to cross 46°42′N, 85°52′W at 2200′MSL, then at 2200′ MSL direct 46°23′N, 85°16′W; then climb to 2500′ MSL direct 45°-48′N, 85°15′W.

Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°-12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′ 86°33′W at 12,000′ MSL. Turn left to intercept 28 radial of the Traverse City VOR climbing so as to cro Traverse City VOR 280/25 at 21,000′ MSL. Contin climbing via the Traverse City VOR 280° radial so to cross the Traverse City VOR at FL 250.

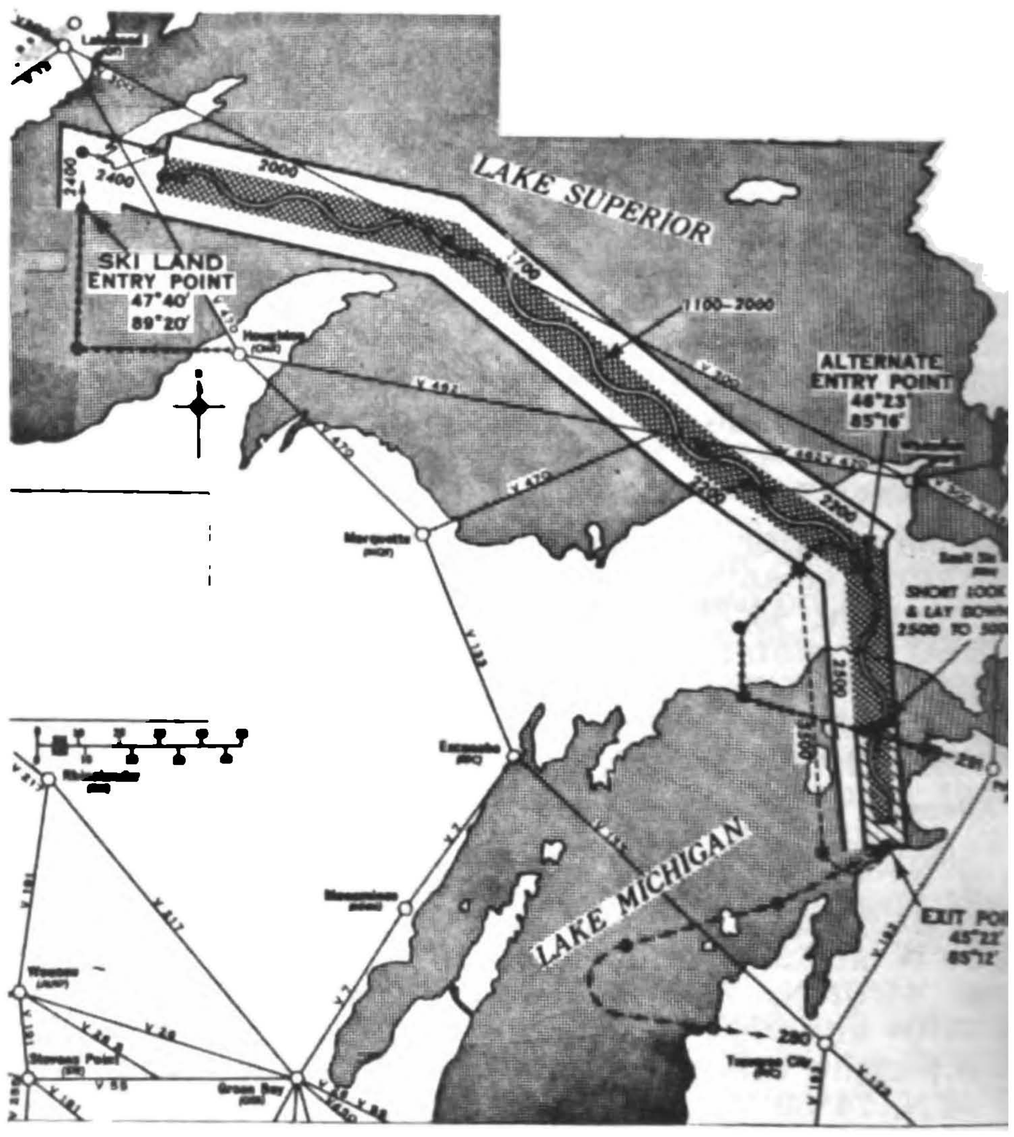
Re-Entry—After completing the initial bomb run aircra that are scheduled to execute an additional bomb r shall, after exiting the route at 45°22′N, 85°12′W, tu right climbing so as to cross 45°21′N, 85°32′W at 350 MSL, then at 3500′ MSL direct to 46°23′N, 85°37′W then turn right descending so as to cross 46°23′N, 85 16′W at 2500′ MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and op ate between the VFR altitudes indicated on the chart b tween the following points: From 47°48′N, 88°55′W 45°27′N, 85°13′W. During daylight hours some VF operations will be flown 500′ above the immediate te rain. VFR operations conducted during the hours darkness will not be flown lower than 800′ above t terrain. The lower VFR altitude shown on the cha is the minimum altitude that will be reached on ea route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mic VOR at 20,000′ MSL, or as assigned by ARTCC; th proceed via the 291° radial of the Pellston VOR 20,000′ MSL or assigned altitude until crossing the Pe ston VOR 291/15; then descend direct so as to cro 45°55′N, 85°55′W at 8000′ MSL; then continuing desce turn right direct so as to cross 46°09′30″N, 85°55′W or below 4000′ MSL; then continue descent so as to cro 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL tu right to 46°23′N, 85°16′W; thence via the "Ski Lan route.

Route Width—The route width is reduced to 5 statu miles west and north of centerline from 47°40′N, 8 20′W to 47°48′N, 88°55′W, and east of centerline fro 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.



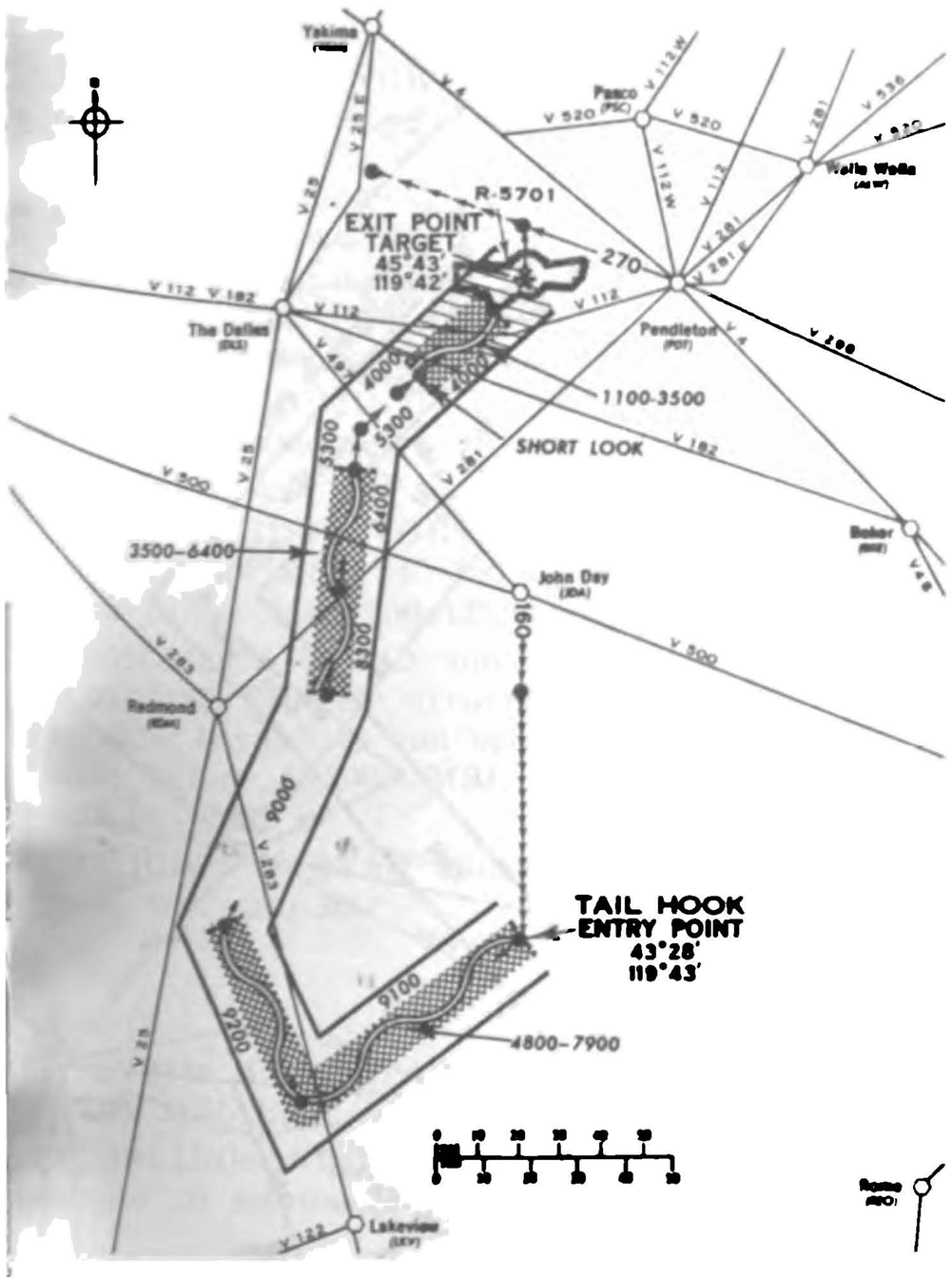
OREGON

TAIL HOOK

Effective February 12, 1963

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000′ MSL, or as assigned by Seattle ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19′N, 119°43′W); then descend to 9100′ MSL to the entry point of the low level route at 43°28′N, 119°43′W; then 9100′ MSL direct to 42°54′N, 120°45′W; then climb to 9200′ MSL direct to 43°31′N, 121°08′W; then descend to 9000′ MSL direct to 44°18′N, 120°39′W; then descend to 8300′ MSL direct to 44°40′N, 120°36′W; then descend to 6400′ MSL direct to 45°05′N, 120°31′W; then descend to 5300′ MSL direct to 45°13′N, 120°30′W; then 5300′ MSL direct to 45°20′N, 120°19′W; then descend so as to cross 45°23′N, 120°13′W at 4000′ MSL.

Short Look—After passing 45°23′N, 120°13′W, aircraft shall maintain 4000′ MSL until within Restricted Area R-5701; after crossing RBS target located at 45°43′N, 119°42′W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pellston, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000′ MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000′ MSL.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28′N, 119°43′W to 43°31′N, 121°08′W, from 44°18′N, 120°39′W to 45°05′N, 120°31′W, and from 45°23′N, 120°13′W to restricted area R-5701. During daylight hours, VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800′ above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

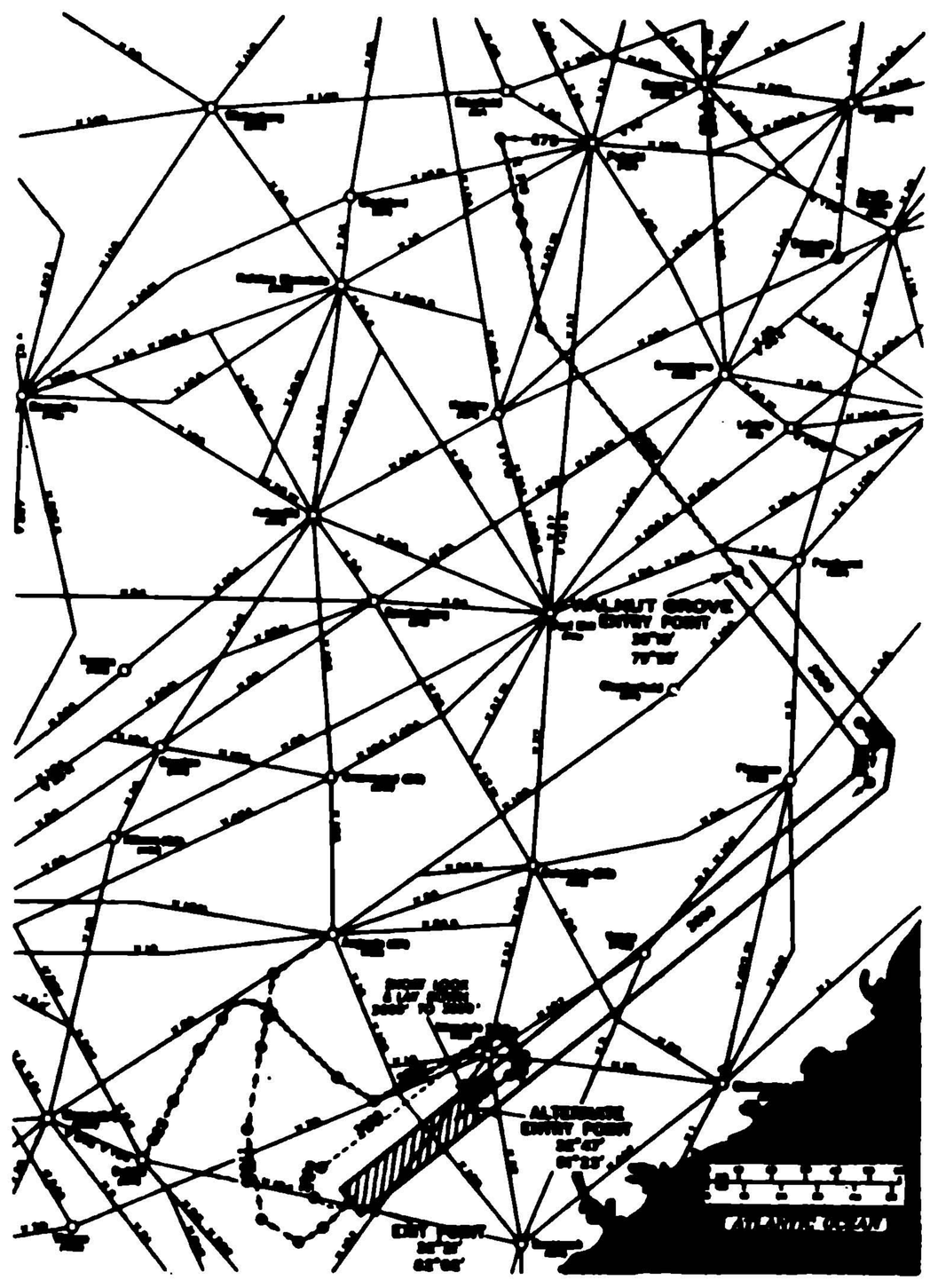
Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE

Effective January 4, 1965

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06′N, 81°14′W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47′N, 81°08′W at FL 210; then descend direct so as to cross 36°43′N, 81°07′W at FL 180 or above; then descend direct so as to cross 36°37′N, 81°06′W at or below 14,000′ MSL; then descend direct so as to cross 36°15′N, 81°00′W at 5000′ MSL; then at 5000′ MSL direct to 35°10′N, 79°55′W (low level entry point); then at 5000′ MSL direct to 34°29′N, 79°16′W; then descend direct so as to cross 34°23′N, 79°11′W at 2000′ MSL; then at 2000′ MSL turn right to 34°13′N, 79°13′W; then at 2000′ MSL direct to 32°47′N, 81°23′W.



Short Look and Lay Down—After passing 32°47′N, 81°23′W aircraft shall maintain between 2000′ MSL and 3000′ MSL through the bomb run corridor (5 SM either side of center line from 32°47′N, 81°23′W to 32°21′N, 82°-02′W). After exiting the route at 32°21′N, 82°02′W, aircraft shall climb to or maintain 3000′ MSL to 32°-14′N, 82°10′W; then climb direct so as to cross 32°10′N, 82°18′W at 6000′ MSL; then climb direct so as to cross 32°16′N, 82°30′W at 11,000′ MSL; maintain 11,000′ direct 32°40′N, 82°35′W; then climb direct so as to cross 33°02′N, 82°31′W at FL 180; cross 33°10′N, 82°29′W at FL 200; cross 33°22′N, 82°27′W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Georgia VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21′N, 82°02′W, turn right and descend or maintain 2000′ MSL to 32°22′N, 82°13′W; then at 2000′ MSL continue turn to 32°30′N, 82°11′W; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′N, 81°10′W; continue turn to 32°-55′N, 81°11′W; then at 2000′ MSL direct to 32°47′N, 81°23′W; thence via the published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31′N, 83°08′W) at FL 260 or as assigned; then descend direct via the Dublin VOR 025° radial so as to cross 32°47′N, 82°59′W at FL 230; cross 33°01′N, 82°51′W at 17,000′ MSL; cross 33°09′N, 82°44′W at 15,000′ MSL; turn right to cross 33°11′N, 82°28′W at 13,000′ MSL; cross 32°54′N, 82°06′W at 3000′ MSL; then descend direct so as to cross 32°48′N, 81°54′W at 2000′ MSL; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to intercept the Walnut Grove route at 32°47′N, 81°23′W.

Route Width—The entire route width is reduced to 5 SM either side of centerline.

Hours of Operation—Primary entry 1900Z to 2300Z and from 0100Z to 1400Z, 7 days per week; alternate entry 24 hours per day, 7 days per week.

COLORADO/KANSAS/NEW MEXICO
OKLAHOMA/TEXAS
ZERO HOUR

Effective November 1, 1964

Aircraft shall cross 34°22′N, 105°40′30″W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ATC, then descend direct to cross 34°33′N, 105°33′W at or below 23,000′ MSL; then descend direct to cross 34°40′N, 105°28′W at 22,000′ MSL; then descend direct to cross 34°45′N, 105°12′W at or below 18,000′ MSL; then descend direct to cross 34°53′N, 104°48′W at 10,000′ MSL; then descend direct to cross the route entry point at 34°47′N, 104°29′W at 7000′ MSL, maintain 7000′ MSL direct to 35°24′N, 104°08W, then 7000′ MSL direct to 36°37′N, 102°50′W; then descend direct to cross 36°49′N, 102°35′W at 6000′ MSL, maintain 6000′ MSL direct to 37°03′N, 102°17′W, then 6000′ MSL direct to 37°52′N, 103°10′W.

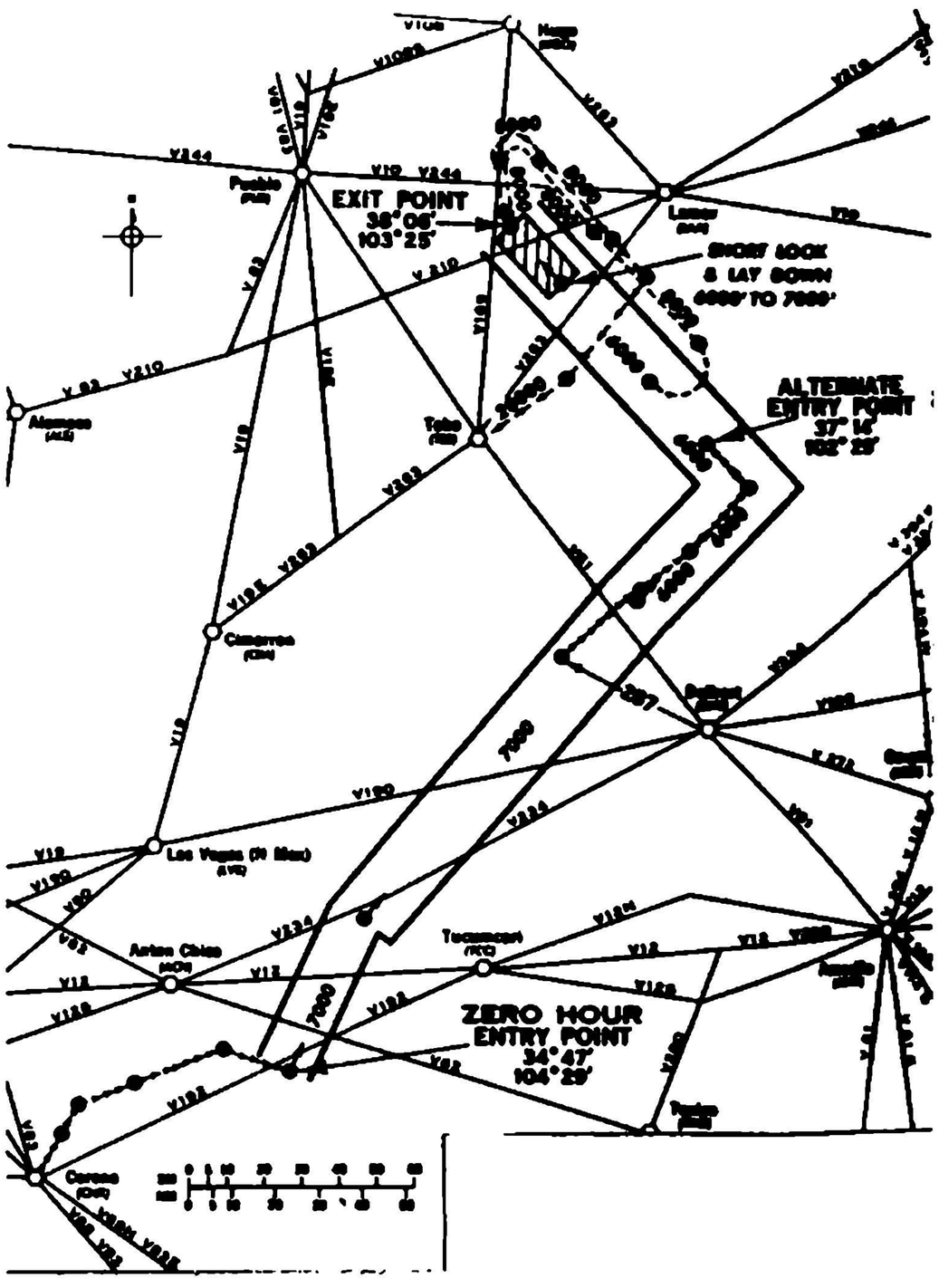
Short Look and Lay Down—After passing 37°52′N, 103°-10′W aircraft shall maintain between 6000′ and 7000′ MSL thru the bomb run corridor (5 SM either side of centerline from 37°52′N, 103°10′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, maintain 800 MSL direct to 38°22′N, 103°27′W, then 8000′ MSL direc to 38°21′N, 103°17′W; then 8000′ MSL direct 38°02′N 102°55′W; then direct to cross 37°53′N, 102°45′W a 9000′ MSL; then climb direct to cross 37°30′N, 103°08′W at FL 200; then maintain FL 200 direct to Tobe VOR TAC.

Re-Entry—After completing the initial Short Look bom run aircraft that are scheduled to execute an additiona bomb run shall, after exiting the route at 38°06′N, 103° 25′W, climb direct to cross 38°09′N, 103°26′W at 800 MSL, maintain 8000′ MSL direct to 38°22′N, 103°27′W then 8000 MSL direct to 38°21′N, 103°17′W, then 800 MSL direct to 38°04′N, 103°00′W, then 8000′ MSL direc to 37°38′N, 102°31′W; then turn right descending to cro 37°29′N, 102°45′W at 6000′ MSL, thence via the pub lished route.

Alternate Entry—Aircraft shall cross 36°23′N, 103°13′W (Dalhart VORTAC 287/37) (reporting point) at 15,00 MSL, maintain 15,000′ MSL direct to 36°39′N, 102°49 30″W; then descend direct to cross 36°49′N, 102°35′W at 11,000′ MSL, maintain 11,000′ MSL direct to 37°03′N 102°17′W; then descend direct to cross 37°14′N, 102° 29′W at 6000′ MSL, thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 5 SM on the east sid of centerline.

Hours of Operation—24 hours daily, 7 days per week



RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

MOBILE, BROOKLEY AFB RDO: VOR unusable below 2000' MSL beyond 30 nmi due reduced coverage.

ARIZONA

BUCKEYE RDO: VOR unusable below 7000' MSL beyond 40 nmi 320–345° acct reduced coverage.

PEACH SPRINGS RDO: VORTAC' unusable below 10,000' MSL beyond 40 nmi from 195-230° account reduced coverage.

PHOENIX RDO: VORTAC' azimuths unusable beyond 10 nmi below 10,000' MSL 152–165° and 200 210° and VOR portion beyond 6 nmi below 7000' MSL 078-125° acct crs roughness.

PRESCOTT RDO: VORTAC' unusable beyond 40 nmi below 11,000' MSL 145-155° and 175-200°; below 17,000' MSL 200–225°; below 12,000' MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

PRESCOTT RDO: Hi alt J-6 btn Prescott, and Grants, N. Mex unusable below FL 280 account. Change over point 131 nmi E

SAN SIMON RDO: VORTAC' unusable beyond 40 nmi below 15,000' MSL 145–190°; below 14,000' 190–255°; below 10,500' MSL 350–145° account reduced coverage.

TUCSON RDO: TACAN unusable beyond 6 nmi below 14,500 MSL 240–295° account crs roughness. VORTAC' unusable beyond 40 nmi below 15'000 MSL from 320-045°; below 16,500' MSL 045–065°; below 15,000' MSL 065–080°.

YUMA RDO: VORTAC' unusable beyond 40 nmi below 9000', MSL 280–300°.

ARKANSAS

FT. SMITH RDO: TACAN azimuth unusable below 10,000' MSL 137–245° acct roughness.

HOT SPRINGS RDO: VOR rads unusable below 3500', beyond 20 mi due roughness and scalloping.

CALIFORNIA

AVENAL RDO: TACAN unusable beyond 40 nmi below 3000' MSL 320–065° below 4000' MSL, 065°–095° below 4500' MSL, 095–125° below 8500' MSL, 125–170° below 7500' MSL, 170–198° below 7000' MSL, 195–230° below 8000' MSL, 230–305° below 8000' MSL.

BLYTHE RDO: VORTAC' unusable beyond 40 nmi below 8000' MSL 324 018° below 9000' MSL 189 217°, below 10,000' MSL 175–189°, below 15,000' MSL 277 324°.

EVERGREEN RDO: H fac unusable btn 360–120° clockwise.

FILLMORE RDO: VORTAC' unusable beyond 40 nmi 13,000' and below 280 290° and 14,000' and below 290–350°

FORT JONES RDO: LFR E crs unreliable account multiples.

FRESNO RDO: TACAN portion of VORTAC' unusable below 4000' MSL 200-250°.

GOFFS RDO: VOR unusable beyond 40 nmi below 11,000' MSL 265 290 and 15,000' MSL 290-310° acct reduced coverage.

GORMAN RDO: VORTAC' unusable beyond 40 nmi below 15,000 MSL 265 310° below 10,500' MSL 350-040°; below 5500' MSL 125–155°; below 10,500' MSL 155–170° below 14,000 MSL 170-219°; below 31,000' MSL 219-250°; below 25,000' MSL 250-265° acct reduced coverage.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC' except unavailable V8N from 25 miles S Mormon Mesa VORTAC' to Mormon Mesa VORTAC' V21 from 20 miles S Mormon Mesa VORTAC' to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC' to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC' to Los Angeles/Salt Lake City boundary. V303 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC' to Los Angeles/ Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/ Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC' to Los Angeles/ Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES RDO: VORTAC' unusable beyond 40 nmi below 6000' MSL from 135–180°, below 7000' MSL from 268–290°. V–201 011° rad beyond 20 nmi below 9000' MSL. DME portion unusable beyond 40 nmi below 3500' MSL from 180–210° acct reduced coverage. TACAN azimuth portion unusable beyond 12 nmi below 5000' MSL from 090–100°.

NAPA RDO: DME unusable beyond 40 nmi below 7500' 280–045°.

NEEDLES RDO: VORTAC' unusable below 11,500' MSL beyond 40 nmi from 170 to 220° account reduced coverage.

OAKLAND RDO: H facil unusable beyond 25 nmi 094–124°. TACAN unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 000–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO RDO: VOR unusable below 14,000′ MSL beyond 40 nmi from 200 to 140° account reduced coverage.

PALMDALE RDO: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°.

PALM SPRINGS RDO: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER RDO: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150° acct reduced coverage.

POINT REYES RDO: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA RDO: VOR unusable beyond 37 nmi on the 073° rad and beyond 40 nmi below 14,500′ MSL 270–330° below 18,000′ MSL 330–360° below 22,000′ MSL 360–035° below 14,500′ MSL 035–045° below 8000′ MSL 070–140° below 7000′ MSL 140–270° acct reduced coverage.

PORTERVILLE RDO: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180° account reduced coverage.

RED BLUFF RDO: VOR unusable below 3500′ MSL 280–300° acct crs scalloping.

RIVERSIDE RDO: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°. VOR will be shutdown for mod.

RIVERSIDE, MARCH AFB RDO: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°. Vail Lake VOR ident VLK limited to 30 nmi radius above 8500′ from 200–320° above 12,000′ from 070 to 320° above 13,000′ from 200–070°

SALINAS RDO: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO RDO: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. TACAN unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320° acct roughness.

SAN FRANCISCO RDO: H facility unusable beyond 15 mi from 130°–160° clockwise.

SAN FRANCISCO GAP RDO: FM unusable below 2000′ MSL.

SAN JOSE RDO: VOR unusable beyond 20 nmi below 8000′ MSL 360-040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SANTA ANA, EL TORO MCAS RDO: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA RDO: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SAUSALITO RDO: VORTAC unusable 300-313° beyond 10 mi below 12,000′.

THERMAL RDO: VORTAC azimuths unusable beyond 40 nmi 015-040°, 13,000′ MSL; 060-040°, 12,000′ MSL 060–085°, 8000′ MSL; 150-200°, 15,000′ MSL; 200-250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS RDO: VORTAC azimuth unusable 010-035°; 13,000′; 100-120°. 11,500′; 120–240 10,500′ beyond 40 nmi.

WOODSIDE RDO: VORTAC unusable below 5000′ MSL beyond 30 nmi 190°–260° and beyond 20 nmi 260–305°

COLORADO

ALAMOSA RDO: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500 MSL 150-165° acct reduced coverage.

COLORADO SPRINGS RDO: VOR unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000 MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL 220–230°; 12,500′ MSL, 280–320°, beyond 30 nmi acct reception VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300-340°; below 14,300′ MSL, 340 005°; below 13,200′ MSL, 005–020°; below 12,100 MSL, 020–030° acct reception.

DENVER RDO: Efctv immediatel J–20, Denver, Colo VORTAC to Gage, Okla. VORTAC changeover point 145 nmi from DEN VORTAC. Continuous navigation signal coverage does not exist over entire route segment 27,000′.

HANOVER RDO: H facil bearings unreliable beyond 2 nmi in shadow area of Pikes Peak

CONNECTICUT

BRIDGEPORT RDO: VOR unusable beyond 10 nmi from 265° clockwise to 280°; beyond 6 nmi 290–305 beyond 20 nmi 315–340° at MOCA. VOR unusable beyond 18 nmi below 7000′ MSL 200–215°.

GROTON RDO: H facil unusable beyond 15 nmi.

NEW HAVEN RDO: VOR unusable beyond 20 nmi at MOCA.

DISTRICT OF COLUMBIA

WASHINGTON RDO: DCA VOR unusable beyond 3 nmi 010–045°; beyond 10 nmi 045–055°; beyond 1 nmi 055–070°; beyond 20 nmi 070–180°; beyond 32 nmi 180–210°; beyond 30 nmi 210–260°; beyond 20 nmi 260–300° beyond 35 nmi 300–340° account roughness and scalloping. Change over point established 16 nmi from Baltimore VOR on V–157.

FLORIDA

KEY WEST RDO: VOR unusable below 14,500 from 095–340° beyond 15 nmi.

ST. PETERSBURG RDO: TACAN azimuth portion of VORTAC unusable 12–30 nmi below 5000′ MSL 310–325°; 30–40 nmi above 5000′ MSL 310–320° acct roughness.

SANFORD NAS RDO: H fac freq 296kc inop UFN.

WEST PALM BEACH RDO: TACAN azimuth unusable from 018 rad thru 040 rad in excess 12 mi from facil and below 3500' MSL due roughness and unlocks.

GEORGIA

AUGUSTA RDO: VOR unusable 357–002° acct roughness. V185 tmprly authorized 180° rad Greenwood to Augusta VOR. MEA 2300' MSL due restriction.
COLUMBUS, LAWSON AAF RDO: VOR unusable beyond 17 nmi.
FULTON RDO: VOR unusable all radials except 220–280° acct roughness.
MACON RDO: FSS freqs 122.2, 126.7, 255.4 unusable below 2500' in SE quad beyond 35 mi.
ROME RDO: VOR rads 124–134° unusable account roughness.

IDAHO

BOISE RDO: VORTAC unusable beyond 40 nmi below 14,000' MSL 360–050° account reduced coverage.
BURLEY RDO: VORTAC unusable beyond 40 nmi below 14,000' MSL from 130–140° and below 12,000' MSL from 140–150° acct reduced coverage.
LEWISTON RDO: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.
MULLAN PASS RDO: H facil momentary ADF disturbance may be experienced within 15 nmi stn 230–250°. 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000' MSL from 310-010° and from 200- 230° and below 12,000' MSL from 290–310°.
POCATELLO RDO: VOR unusable beyond 40 nmi below 11,000' MSL from 060–085° and below 13,000' MSL from 085–120° acct reduced coverage.
TWIN FALLS RDO: VOR unusable beyond 40 nmi below 12,000' MSL 115–150° acct reduced coverage.

ILLINOIS

CHAMPAIGN RDO: TACAN radials 231–239° unusable below 14,000'.
CHICAGO O'HARE RDO: VOR unusable 060–072°, 091–100°, 290–305°, 340–360°. TACAN azimuth and DME unusable 004–014°, 135–156°, 285–315°, 340–350°.
CHICAGO HEIGHTS RDO: VOR portion unusable beyond 20 nmi below 8000' MSL 330–350°. TACAN azimuth portion unusable 085–150° and 315°–350°.
DECATUR RDO: VOR unusable above 12,000' MSL beyond 40 nmi E due to freq interference with RID VOR.
JOLIET RDO: VOR unusable 040-070° below 3000' MSL beyond 35 nmi. TACAN azimuth unusable below 3000' MSL beyond 15 nmi all azimuth; unusable 063–067° below 6000' MSL.
PEOTONE RDO: VOR 341–010° rads unusable beyond 33 mi below 3000' MSL

INDIANA

FORT WAYNE RDO: TACAN azimuth unusable 050–065° account unlocks. TACAN azimuth 324/339° unusable beyond 12 mi account crs roughness.
INDIANAPOLIS RDO: TACAN azimuth unusable from 163–224° due excessive alignment errors.
KNOX RDO: VOR coverage restricted to 37 nmi at MEA. Possible interference btn Mansfield, Ohio and Knox VOR above 10,000' MSL beyond 45 nmi E of Knox VOR.

IOWA

FORT DODGE RDO: TACAN azimuth portion unusable 080-100° acct crs roughness.
MASON CITY RDO: TACAN azimuth portion of VORTAC not to be used for apchs or coup'ed flight acct momentary crs roughnes which may occur at all azimuths and all ranges below 14,500' MSL.
NEOLA RDO: Voice comms with Omaha, Nebr FSS unusable below 4500' on V 172 and V-172N btn 20 and 46 nmi E VORTAC, excp rcvr 122.1 and tsmts 117.1 rec.
SIOUX CITY RDO: TACAN azimuth portion of VORTAC unusable beyond 17 nmi below 14,500' MSL 280–300° acct crs roughness. TACAN shutdown for tune up until aprxly Nov 20. During shutdown the facility will be operg on test basis not to be used for navigation.
WATERLOO RDO: TACAN azimuth and DME portion of VORTAC unusable beyond 15 nmi at all alts 355–005° account unreliable crs and distance indications. Not to be used for apchs to rnwy 18 acct roughness.

KANSAS

HILL CITY RDO: TACAN azimuth unusable beyond 15 nmi below 5000' MSL from 350 010° due roughness.

LOUISIANA

ALEXANDRIA RDO: TACAN azimuth portion of VORTAC restricted from 345° clockwise thru 030° beyond 30 mi below 2500' acct crs roughness.
LAKE CHARLES RDO: TACAN azimuth portion not usable below 2500' MSL from 270-285° within 25 nmi acct crs roughness.
SHREVEPORT-DOWNTOWN RDO: VOR unusable 070 100° and 180–280°.
SHREVEPORT RDO: TACAN azimuth unusable beyond 8 nmi below 9700' MSL 300–315°.

MAINE

LIMESTONE-LORING AFB RDO: USAF VOR inop indef.
MILLINOCKET RDO: VOR unusable beyond 35 nmi 330-340° at MOCA.

MARYLAND

FREDERICK RDO: VOR unusable below 2000' beyond 25 nmi from 055–190°.
PATUXENT RDO: VOR unusable below 1500' MSL; beyond 35 nmi from 245–300° acct reduced coverage.
SNOW HILL RDO: VOR unusable below 1500' beyond 12 nmi 315-003°/ below 1500' beyond 25 nmi 005-020° and below 1300' beyond 20 nmi 210–225° acct roughness. Changeover point on V-139 btn Snow Hill and Cape Charles 20 mi SW Snow Hill.

MASSACHUSETTS

BEDFORD RDO: VOR unusable below 3000' MSL beyond 10 nmi 270-225° and below 13,000' MSL beyond 10 nmi 225–270°.

BOSTON RDO: VOR unusable beyond 26 nmi all azimuths at MOCA.
SHUTESBURY RDO: VOR ident SHT freq 109.2 for use only with published procedures. Not for use as enroute navaid.
WESTFIELD RDO: VOR unusable beyond 35 nmi from 270° clockwise to 320° at MOCA.

MICHIGAN

BATTLE CREEK RDO: TACAN rads 275 thru 290° unusable 13,500′ MSL and below beyond 15 nmi due crs roughness. TACAN azimuth rads 326 thru 336° unusable due crs roughness.
CARLETON RDO: TACAN portion of VORTAC unusable beyond 12 nmi below 4500′ MSL 335–345° acct roughness.
FLINT RDO: VORTAC unusable 300-320° beyond 6 nmi below 10,000′ account roughness and unlocks. TACAN azimuth unusable 320–030° beyond 6 nmi, below 10,000′ account roughness and unlocks.
GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00′48″, long 84—41′30″, Gaylor Arpt. Revg freqs 122.1, 126.7 mc. Monitoring category (1).
MARQUETTE RDO: VOR unusable 200–335° below 2900′ beyond 25 mi; 335–350° below 2900′ beyond 30 mi; 200–350° below 4400′ beyond 40 nmi.
MT. PLEASANT RDO: Non-Federal VOR operg 24 hrs daily VFR use only. Class: L–BVOR Freq: 109.8 mc. Ident: MOP. Lctd lat 43°37′, long 84°44′. Monitoring category (1) Revg 122.1 and 126.7 mc.
WHITE CLOUD RDO: VOR unusable below 2000′ from 300–090° clockwise beyond 35 mi.

MINNESOTA

INTERNATIONAL FALLS RDO: H facility shutdown UFN.
MINNEAPOLIS RDO: TACAN azimuth unusable below 14,000′ MSL beyond 18 nmi from 167 thru 180° acct crs roughness.
WINONA RDO: VOR unusable as enroute IFR aid.

MISSOURI

KANSAS CITY RDO: Riverside VOR unusable beyond 15 mi below 2400′ MSL; beyond 30 mi below 4000′; 125–170°, 252–260° and 300–310° unusable all distances and alts.
MARYLAND HEIGHTS RDO: VOR coverage restricted to 35 nmi from 150° clockwise to 219° at MEA.

MONTANA

BILLINGS RDO: TACAN azimuth has momentary crosspointer excursions within 10 nmi at MEA 050–060° btn 20 and 35 nmi at MEA 290–305° which may be encountered at higher alts and greater ranges.
BOZEMAN RDO: VOR unusable beyond 40 nmi below 20,000′ MSL 010–035°; below 18,000′ MSL 035–090° acct reduced coverage.
BUTTE RDO: VOR unusable beyond 40 nmi below 15,000′ MSL 005 thru 030°, 13,000′ MSL 030 thru 075°; 15,000′ MSL 160 thru 230°; 11,000′ MSL 355 thru 005° acct reduced coverage.
DILLON RDO: VORTAC unusable beyond 40 nmi below 11,000′ MSL from 340–350° below 9000′ MSL 010–020°; below 12,000′ MSL 020–040°; below 14,000′ MSL 040-080°; below 12,000′ MSL 080–090°; below 14,000′ MSL 090–130° below 18,000′ MSL 130–145° account reduced coverage. TACAN azimuth has momentary cross pointer excursions btn 25 and 30 nmi at MEA 145 thru 155° which may be encountered at higher alts and greater range.
DRUMMOND RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 055–070°, below 14,000′ MSL from 110–125°, below 17,000′ MSL from 125–150°, below 13,000′ MSL from 150–210°, below 14,000′ MSL from 210–270°, below 12,000′ MSL from 270–055° acct reduced coverage. Possible momentary flag activity on V–2 nine miles E of Drummond VOR. Verify station passage by to/from indication.
GLASGOW AFB RDO: USAF VOR unusable for civil use below 6800′ MSL beyond 10 nmi 235–245° account crs roughness.
GREAT FALLS RDO: TACAN azimuth portion of VORTAC unusable below 12,000′ MSL beyond 20 nmi from 040–060° acct crs roughness. About Oct 31 UHF/DF will be decomsnd.
HELENA RDO: VOR unusable beyond 40 nmi below 10,000′ MSL 360–065°; 11,000′ 065–090°; 16,000′ 110–120°; 18,000′ 120–180°; 17,000′ 180–205°; 14,000′ 205–220°; 12,000′ 220–240; 11,000′ 240–305°; 10,000′ 305–320° account reduced coverage.
LIVINGSTON RDO: VORTAC unusable beyond 40 nmi below 9000′ from 070 thru 090° below 13,000′ from 250 thru 280°; below 17,000′ from 340 thru 010° and below 16,000′ from 010 thru 040°.
MILES CITY RDO: VORTAC operg with following restrictions TACAN azimuth portion not to be used for coupled flight 345–005° within 15 nmi at MEA and below account momentary course roughness which may occur at greater ranges and altitudes.
MISSOULA RDO: VORTAC unusable beyond 15 nmi 345–060°; beyond 22 mi 060–095°; below 10,000′ beyond 20 mi 095–165°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 285–315°; not usable 315–345° beyond 34 mi, TACAN below 14,000′ VOR below 11,000′, acct reduced coverage. Possible momentary VOR flag activity on V–2 nine miles E of MSO VOR/TAC. Verify station passage by to/from indication.
WHITEHALL RDO: VOR unusable below 14,500′ MSL beyond 30 nmi from 000–040°; below 12,000′ MSL beyond 30 nmi from 041–055°; below 14,500′ MSL beyond 30 nmi 120–160°; below 14,500′ MSL beyond 20 nmi from 215–230°; below 14,500′ MSL beyond 30 nmi from 231–285°, below 13,500′ MSL beyond 30 nmi from 286–359° acct crs roughness and TACAN unlocks. TACAN unusable for apchs 268° rad to Silver Bow County/Butte Airport.

NEBRASKA

GRAND ISLAND RDO: TACAN unusable beyond 20 nmi below 7000′ 360–025°; from 0 to 10 nmi below 12,000′ 055–085°; from 0 to 20 nmi below 12,000′ 255–285°.
HAYES CENTER RDO: TACAN azimuth unusable 30 nmi 225–245° due roughness.

OMAHA RDO: Voice comms with Omaha, Nebr. FSS unusable below 3000' on V-66-88 btn 36 and 55 nmi E of VORTAC, except tsmtg 116.3 mc.

NEVADA

BEATTY RDO: VOR restricted below 8000' beyond 27 nmi, 035–360°; below 10,000' beyond 10 nmi, 360–030°.

BOULDER RDO: VOR restrictions 300 to 310° below 8000' MSL beyond 15 nmi due to scalloping.

CALDALE RDO: VOR usable dist: 300–015° and 030–090° limited to 25 nmi at MOCA.

ELY RDO: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500' MSL from 120–170° and 240–320°; below 14,000' MSL 170–220° and 320–340°; below 15,000' MSL from 220–240°; below 12,000' MSL from 340–010°; beyond 10 nmi below 13,000' MSL from 010–120°.

HAZEN RDO: VOR unusable 300–320° beyond 30 nmi below 9500'.

LAS VEGAS RDO: VORTAC unusable beyond 40 nmi below 9500' MSL from 190° to 220° below 12,500' MSL from 200° to 255°, below 14,500' MSL from 255° to 270°, below 16,000' MSL from 270–290° acct of reduced coverage.

LIDA RDO: VOR unusable below 11,000' due roughness.

MORMON MESA RDO: VORTAC unusable beyond 40 nmi below alts 12,000' MSL from 055 to 100°; 14,000' MSL from 100 to 110°; 17,000' MSL from 110 to 135°; 16,000' MSL from 285 to 340° account reduced coverage.

RENO RDO: H facility unusable 170°–270° beyond 20 nmi, 270°–300° beyond 30 nmi and 300–010° beyond 3 nmi. VOR unusable 200–230° beyond 30 nmi below 13,000'. TACAN unusable below 14,500' beyond 30 nmi btn 210–230°.

TARKS RDO: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH RDO: VOR unusable below 13,000' MSL beyond 40 nmi below 13,000' 005–030° acct reduced coverage.

WELLS RDO: VORTAC unusable beyond 40 nmi 18,000' MSL 005–030°; below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000', 350–005° account reduced coverage.

NEW HAMPSHIRE

KENE RDO: VOR unusable 070–085° beyond 20 nmi at MOCA.

LEBANON RDO: VOR unusable below 6000' MSL beyond 35 nmi, 110–115° acct reduced coverage.

NEW JERSEY

ATLANTIC CITY RDO: VOR unusable beyond 35 mi from stn to MOCA. TACAN has momentary cross pointer excursions within 10 nmi at MOCA, which may be encountered at higher alts and greater ranges. TACAN apch rnwys 13 and 31 for mil jet acft approved; otherwise unsuitable for instrument apch procedure.

ROBBINSVILLE RDO: VOR unusable beyond 30 nmi from 020° clockwise to 065° at MOCA due interference undisclosed source. TACAN azimuth and DME portion unusable below 1500' MSL; beyond 35 nmi from 030–10° and beyond 30 nmi 100–110°. TACAN azimuth unusable below 1500' MSL beyond 15 nmi from 335–345°.

NEW MEXICO

CIMARRON RDO: VOR coverage restricted to awys 40 nmi at MEA exep V 19, N of CIM 35 nmi.

COLUMBUS RDO: VOR 078° rad restricted to 20,000' MSL for 40 nmi.

GRANTS RDO: TACAN portion unusable beyond 20 nmi 175–210°, 315–360° and 011–035° at MOCA acct loss of signal, the portion 001–010° unusable acct loss of signal. VOR portion unusable beyond 30 nmi 310–360°, 20 nmi 360–025°, 30 nmi 150–175°, 20 nmi 175–210°, 35 nmi 240–265° at MOCA.

NEW YORK

BINGHAMTON RDO: Erratic ADF action 4–13 nmi SSE of facil at min inst alt.

CLERMONT RDO: VOR unusable beyond 35 nmi 045–050° and 30 nmi 070–140° at MOCA. About Jan 7, 1965, VOR name and ident will be changed to Kingston, IGN.

DEER PARK RDO: VOR unusable below 1500' MSL beyond 35 nmi from 070–180° below 1500' MSL beyond 30 nmi from 180–240° below 2000' MSL beyond 20 nmi from 240–350° below 2000' MSL beyond 30 nmi from 350–040° due reduced coverage. TACAN unusable below 1500' beyond 15 nmi from 088–098° due roughness.

DUNKIRK RDO: VOR unusable below 4000' MSL beyond 22 nmi from 120–180° acct reduced coverage.

GLENN FALLS RDO: TACAN azimuth unusable beyond 35 nmi from 305° to 315°; beyond 30 nmi 315–350°. DME unusable beyond 35 nmi 305–315°, beyond 30 nmi 315–320°, beyond 25 nmi 320–325°, beyond 30 nmi 325–350° at MOCA.

HAMPTON RDO: TACAN azimuth and DME unusable below 1500' MSL beyond 35 nmi 280–325°; below 2000' MSL beyond 30 nmi 325–355° account reduced coverage.

HUGUENOT RDO: VOR unusable below 6500' beyond 20 nmi 210–230° due reduced coverage.

ITHACA RDO: VOR unusable beyond 25 nmi 360–150°.

NEW YORK, KENNEDY RDO: VOR unusable below 1500' beyond 30 nmi 015–303°; below 1500' beyond 26 nmi 030–045°; below 2000' beyond 24 nmi 045–060°; below 1500' beyond 24 nmi 060–075°; below 1500' beyond 30 nmi 075–100°; below 1500' beyond 28 nmi 100–150°; below 1500' beyond 26 nmi 150–165°; below 1500' beyond 30 nmi 165–215°; below 1500' beyond 26 nmi 215–270°; below 2000' beyond 26 nmi 270–340°; below 2000' beyond 30 nmi 340–350°; below 1500' beyond 35 nmi 350–015°. MRA Northport Int 2500' MSL acct ers roughness.

NEW YORK RDO: La Guardia VOR (freq 113.1 mc) unusable clockwise beyond 20 mi 015–025°; 35 nmi 025–045°; 30 nmi 065–075°; 25 nmi 075–135°; 35 nmi 135–145°; 15 nmi 165–205°; 35 nmi 205–215°; 30 nmi 215–220°; 25 nmi 220–230°; 30 nmi 230–240°; 20 nmi 240–250°; 10 nmi 250–260°; 20 nmi 260–270°; 25 nmi 270–285°; 30 nmi 285–295°; 35 nmi 295–305°; 35 nmi 315–325°; 25 nmi 325–005° at MOCA.

ROCHESTER RDO: VOR unusable beyond 12 nmi btn 045 to 065° at MOCA. VOR subject to shutdown except Sundays and holidays acct arpt constr. Whenever weather conditions go below ceiling 800′ and/or visibility 2 mi VOR will return to service.

NORTH CAROLINA

CHARLOTTE RDO: VOR normal excp 045° rad unusable beyond 20 nmi due roughness.

ELIZABETH CITY RDO: VOR unusable 026–042° and 085–100°, unusable 276–312° below 5000′. V–472 tmpry authorized 130° rad FKN ECG VOR MEA 2500′ MSL due restrictions.

GOLDSBORO, SEYMOUR JOHNSON AFB RDO: VOR rads 290° thru 320° and 100 thru 130° unusable due roughness, scalloping and bends.

NORTH DAKOTA

FARGO RDO: TACAN azimuth has momentary cross pointer excursions within 22 nmi at MEA and below which may be encountered at higher alts and greater ranges.

OHIO

AKRON RDO: VOR portion VORTAC unusable 030–080° acct crs roughness. From V–72 utilize published YNG VOR rad from Akron to YNG. SW–bnd determine stn passage at Akron by To-From indicator. MEA 2500′ MSL.

BRIGGS RDO: VOR unusable 330–010° and 120–145°, unusable above 10,000′ MSL 305–325° acct roughness. For V–8, V–75, V–92, V–103 utilize published Wheeling VOR 310° radial BSV to Wheeling VOR 3000′ MEA.

JEFFERSON RDO: VORTAC 109° rad V1506 unusable beyond 40 nmi acct interference with Georgetown VOR, changeover point 40 nmi from JFN and 82 nmi from Keating VOR, MAA FL 240.

MANSFIELD RDO: VOR unusable above 8000′ MSL beyond 20 nmi from stn 150–220° due co-channel interference 108.8 mc from Rainelle, W.Va. VOR.

MONTGOMERY CO RDO: VOR unusable beyond 30 nmi 070° clockwise to 085°, 135–155°; 225–250°; 280–295° at MOCA. All other azimuths unusable.

STRONGVILLE RDO: VOR unusable beyond 35 nmi from 080–200° at MOCA.

OREGON

NEWPORT RDO: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 6000′ MSL 150–170°; 6000′ MSL 320–350° acct reduced coverage.

PORTLAND RDO: VORTAC 332° rad of the TACAN azimuth and the DME on the same 332° rad not usable beyond 40 nmi at 6,000′.

REDMOND RDO: VORTAC unusable below 11,000′ MSL 190–210°; below 13,000′ MSL 210–240°.

ROSEBURG RDO: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN RDO: VOR unusable below 3500′ MSL beyond 26 nmi from 020 to 060° account crs roughness. TACAN azimuth unusable below 3500′ MSL beyond 26 nmi from 335 to 060° account crs roughness.

ALTOONA RDO: VOR unusable below 3500′ MSL beyond 18 nmi 070–100° below 3500′ MSL beyond 3 nmi 100–160° below 4500′ MSL beyond 30 nmi 290–310° all altitudes beyond 15 nmi 310–350° below 4000 MSL beyond 30 nmi 350–010° due reduced coverage.

BRADFORD RDO: H fac unusable beyond 15 nmi 9 to 180° acct excessive needle oscillation.

HARRISBURG RDO: VOR unusable beyond 26 nmi from 105–140°; beyond 30 nmi 140–165° beyond 3 nmi 195–230° at MOCA. TACAN azimuth unusable beyond 35 nmi 195–230° 15 nmi 230–265° and 33 345° at MOCA. TACAN distance unusable beyon 30 nmi 325–360° beyond 35 nmi 360° beyond 35 nm 360–025° at MOCA.

HAZLETON RDO: Non-Federal H facil hrs of oper limited to 0700–1900 UFN.

HUGHESVILLE RDO: H facil has erratic ADF actio 2–4 nmi from stn in E quad at min instr alt.

IMPERIAL RDO: VOR unusable from 150 to 170° belo 8000′ and from 345 to 360° below 14,500′ MSL a count crs roughness. For V40/41 btn IRL and AB VORTAC below 8000′ MSL utilize AGC 330° rad.

LANCASTER RDO: VOR unusable below 5000′ MS beyond 15 nmi, below 6000′ MSL beyond 25 nmi fro 320–340° acct crs scalloping.

LATROBE RDO: VOR unusable all alts all azimut beyond 20 nmi due crs vagaries.

PITTSBURGH, ALLEGHENY RDO: H facil brgs u reliable SW quad beyond 20 mi all alts due to exce sive needle oscillations.

THORNHURST RDO: VORTAC unusable beyond 1 nmi below 6000′ MSL 300–330°. TACAN portion VORTAC may be shut down until aprxly Dec 12 f mod.

YARDLEY RDO: VOR unusable below 1700′ MSL b yond 17 nmi 250–265°; beyond 10 nmi 265–280°; b yond 17 nmi 280–290° account crs roughness. TACA unusable below 2400′ MSL beyond 15 nmi, below 50 MSL beyond 30 nmi 225–275° acct roughness and DM unlock.

RHODE ISLAND

PROVIDENCE RDO: VOR unusable beyond 30 nm below 3000′ acct reduced coverage from 220–310°.

SOUTH DAKOTA

DUPREE RDO: TACAN azimuth unusable below 45 MSL 185–195° from 15 to 25 nmi acct crs roughnes

MITCHELL RDO: VOR restricted to VFR use on UFN.

MOBRIDGE RDO: State owned and operd VOR oper 0700–1900, VFR use only. Class: L–VOR. Freq 108.6, receivers 122.1. Ident MBG. Lctd lat 45°33′ 07″, long. 100°21′56″.

TEXAS

AMARILLO RDO: TACAN unusable beyond 15 nmi b low 7,000′ MSL 110–235° acct roughness.

AUSTIN RDO: VOR unusable beyond 35 nmi below 3500' MSL 290-320°.
BROWNWOOD RDO: VOR coverage restricted to 25 nmi at min instr alt 015-085°.
EL PASO RDO: TACAN unusable beyond 30 nmi at MOCA from 265° clockwise thru 300°.
FORT WORTH, GREATER SOUTHWEST RDO: TACAN portion of VORTAC unusable beyond 30 nmi below 4000' MSL.
GALVESTON RDO: TACAN unusable beyond 20 nmi below 3000' MSL 040–075 °acct crs roughness.
HOUSTON RDO: TACAN azimuth unusable due crs roughness.
LUBBOCK RDO: TACAN azimuth unusable from rad 140–190° below 8000' beyond 15 nmi.
PALACIOS RDO: TACAN unusable 265-330° acct roughness.
WACO RDO: TACAN unusable beyond 15 nmi below 5000' MSL 175–195°.
WICHITA FALLS RDO: TACAN azimuth inop indefinitely due crs roughness.
WINK RDO: TACAN portion unusable beyond 17 nmi below 7000' MSL 030-080°.

UTAH

CEDAR CITY RDO: VOR unusable beyond 40 nmi below 17,500' MSL 035-090°; below 22,000' MSL 090–100°; below 24,000' MSL 100-140°; below 20,000' MSL 140–150°; below 17,000' MSL 150-170° account reduced coverage.
DELTA RDO: VOR unusable beyond 40 nmi below 16,000' MSL 040-080° acct reduced coverage.
HANKSVILLE RDO: VORTAC coverage restricted from 160 thru S to 190° 26nmi at 14,000' MSL.
LUCIN RDO: VOR unusable beyond 40 nmi below 15,000' MSL 180–220°; below 12,000' MSL 280-310°; below 11,000' MSL 310–330° account reduced coverage.
MILFORD: Jet Route 107 from Milford, Utah VOR to Rock Springs, Wyo. VOR continuous navigation signal coverage does not exist over the entire route segment below 28,000'. VOR moderate to hvy roughness over mountain ridges on 072 rad 10 mi out.
OGDEN RDO: VORTAC unusable beyond 40 nmi below 21,000' MSL 36–055°; below 16,500' MSL 055 thru 075°; below 22,000' MSL 075 thru 130° account reduced coverage.
PROVO RDO: VOR unusable beyond 40 nmi below 15,000' MSL 010-035°; below 16,000' MSL 035–050°; below 15,000 MSL 275–285°; below 14,000' MSL 285–295° acct reduced coverage. Roughness exists over mountain ridges N thru E btn 15 and 20 nmi.
SALT LAKE CITY RDO: VORTAC unusable beyond 40 nmi below 19,000' MSL 010–020°; below 20,000' MSL 020–030°; below 23,000' MSL 030–060°; below 24,000' MSL 060–080°; below 19,000' MSL 080–095°; below 17,000' MSL 095–125°; below 16,000' MSL 125–140°; below 16,000' MSL 195–210°; below 10,000' MSL 280–290°; below 16,000' MSL 350-010° acct reduced coverage.

VERMONT

BURLINGTON RDO: VOR unusable beyond 35 nmi from 080° clockwise to 105°; 25 nmi 115–135°; 30 nmi 135–155° at MOCA.
MONTPELIER RDO: VOR unusable beyond 30 nmi 205-220°; beyond 25 nmi 220-235°; beyond 30 nmi 234–280° at MOCA.

VIRGINIA

BROOKE RDO: TACAN azimuth and distance unusable beyond 30 nmi 230° clockwise to 270° MOCA.
HERNDON RDO: VOR portion of VORTAC unusable below 2500' MSL. Beyond 30 nmi from 050-075°; beyond 20 nmi from 075-095°; beyond 35 nmi from 105-120°; beyond 20 nmi from 165°–215° acct of crs roughness. V39 E 209° usable 5000' and above beyond 20 nmi.
LAWRENCEVILLE RDO: VOR unusable below 1800' MSL beyond 8 nmi 215-250°; 14,500' MSL to 24,000' MSL 215-270° account roughness. MEA V-155 3000' MSL btn LVL VOR and Franklinton, N.C. Int. MEA V-454, 5000' MSL btn LVL VOR and LIB VOR. Changeover point 82 nmi from LIB VOR.
LINDEN RDO: TACAN azimuth and DME unusable below 3500' beyond 25 nmi 140-180°; below 5000' 180 225° acct reduced coverage.
MONTEBELLO RDO: VOR unusable 110-220° beyond 35 nmi at MOCA. 058 rad unusable above 14,500'.
PULASKI RDO: VORTAC unusable beyond 35 nmi from 015° clockwise to 060° at MOCA.
QUANTICO MCAS RDO: Use LFR as H facil only.
ROANOKE RDO: Woodrum VOR unusable beyond 30 nmi from 360 to 285°, 20 nmi 286-360° at MOCA. H facil unusable beyond 40 nmi from 240 to 010° below 6000' due excessive needle oscillation.

WASHINGTON

BELLINGHAM RDO: Intermittent roughness may be observed on V–23 below 6000' MSL from 49 nmi thru 40 nmi S of VOR.
NEAH BAY RDO: H facil unusable 100-130° below 6500' MSL acct terrain.
OLYMPIA RDO: VORTAC unusable below 7500' MSL at 40 nmi 210–260°. TACAN unusable below 15,000' MSL 260-270° at 40 nmi; below 9500' MSL at 35 nmi 270–280° account reduced coverage. VOR 348° rad unusable below 4500' MSL beyond 24 nmi.
PASCO RDO: VOR unusable below 6500' MSL beyond 40 nmi 150–210°; below 5500' MSL 210–270° acct reduced coverage. Coverage within R-6715 from 270–320° not flt checked.
PORT ANGELES RDO: VOR coverage 40 nmi: 220–110° at 7000'; 110–140° at 14,500'; 140–150° at 20,500'; 150–170 °at 29,000'; 170–190° at 20,500; 190–220° at 16,000'.
SEATTLE RDO: LFR NW crs has splits and multiples beyond 20 nmi. VOR unusable beyond 10 nmi 158° clockwise 165°. 309° rad unusable below 14,000 within 40 nmi.
WALLA WALLA RDO: VOR coverage at 40 nmi restricted below 6000', 355–020° and 148–176°; below 7500' from 130–150°; below 10,500' from 020–060° and 110–130°; below 12,700' from 065–110°.
WENATCHEE RDO: VOR unusable beyond 20 nmi below 20,000' MSL 000–020° beyond 30 nmi below 20,000' MSL 020–075° beyond 40 nmi below 14,000' MSL 075-090° below 18,000' MSL 090–190° below 19,000' MSL 190–240°.

WEST VIRGINIA

BECKLEY RDO: VOR unusable beyond 20 nmi 325–350° below 5000′ acct crs roughness, excluding 335° rad at Montgomery Int. Voice reception Charleston FSS unreliable below 7500′ MSL 40 nmi radius Beckley VOR 030–180°. Reception satisfactory with acft over VOR or MEA.

LA CROSSE RDO: VOR unusable 100–150° and 230–060° below 3300′ MSL beyond 20 mi.

MILWAUKEE RDO: Timmerman VOR unusable beyond 35 mi 300–310° below 3400′ MSL acct reduced coverage. Alarm status MKE VOR indicated by transmission of unkeyed 1020 cycle ident signifying unusability for nav and indicating imminent equipment transfer shutdown.

WYOMING

BOYSEN RESERVOIR RDO: VOR has momentary cr excurisions and roughness all radials.

SHERIDAN RDO: VORTAC unusable beyond 35 nm below 16,000′ MSL 195–225°.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexandria, La. England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000'.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500'.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000'.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Atlanta, Ga.: Lctn #1—012°; over end rnwy 09. Lctn #2—020°; over end rnwy 27.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300'.

Augusta, Me. (State): 257°; over LFR, 1.8 nmi from AUG VOR; 1500'.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200'.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000'.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500'.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 145°; N end of rnwy 16–34; 660'.

Big Spring, Tex.: 199°; over the rdo bcn; 1000' AGL.

Billings, Mont. (Municipal): 073°; Intersection of rnwys 4–22 and 9–27; 4600'.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500'.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000'.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000'.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000'.

Brownsville, Tex. (Rio Grande Valley Intl): 244°; water twr in bldg area of arpt.

Brownwood, Tex: 167°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000'.

Butler, Mo.: 073°; over FSS bldg.

Butte, Mont.: 004°; intersection of rnwy 29–33; 6500'.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200'.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300'.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr.: 014°; railroad intersection 1.5 nmi N arpt bndry.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000'.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland LFR distance 13.5 nmi; 1500'.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tankfarm E side of town; 1000'.

Crestview, Fla.: 104°; over center of arpt; 900'.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar.

Cut Bank, Mont.: 312°; over center rnwy 31; 4800'.

Daggett, Calif.: 224°; over center twr LFR; 2500'.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700'.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Decatur, Ala. (Pryor): 002°; over intersection of rnwy and taxiway 236° from HSV; 1000′.

Defiance, Ohio (Bryan-Defiance Mem'l): 074°; over Admin Bldg, 6.5 nmi from DFI VOR; 1300′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Denver, Colo.: 189°; over EGW rdo bcn; 5800′.

Des Moines, Iowa: 356°; center twr of DSM LFR, 4.2 nmi from VOR.

Douglas, Ariz. (Bisbee-Douglas Intl): 119°; over intersection rnwy 12–30 and 17R–35L; 4700′.

Dublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin): 228°; trml bldg E side of arpt.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

Emporia, Kans.: 046°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evergreen, Ala.: 100.7° ; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nmi from VOR.

Fargo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300′.

Fayetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nmi; 1200′.

Fillmore, Calif.: 210°; at CAV rdo bcn 1800′.

Findlay, Ohio: 048°; over the Ohio Oil Company Admin Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Flint, Mich. (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

Flying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nmi from transmitter.

Fort Smith, Ark.: 232°; water tank at N edge of arpt; 1300′.

Fortuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 500′.

Fortuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Fresno, Calif. (Air Trml): 133°; over apch end rnwy 11; 500′.

Gage, Okla.: 094°; over LFR; 3000′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 1000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR; 2000′.

Grand Forks, N. Dak.: 315°; over Int N/S and E/W rnwys: 1900′.

Grand Island, Nebr.: 141°; over smoke stack 5.5 nmi from VOR; 3100′.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

Great Falls, Mont.: 026°; center NE end rnwy 3–21; 3900′.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt.

Hayes Center, Neb.: 258°; 28 nmi over center of town of Enders, Neb.; 4500′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 23 nmi from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Huron, S. Dak. ((Howes): 153°; lctd over HON/SBH: 2000′.

Hutchinson, Kans.: 032°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Jackson, Miss. (Hawkins): 189°; over arpt intersection of rnwys 11–29 and 34L–16R.

Jackson, Tenn. (McKellar): 267°; over bcn twr above arpt; 1000′.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Ceeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600'.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500'.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Lakeside, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000'.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800'.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100'.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200'.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500'.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000'.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700'.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2700'.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000'.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500'.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000'.

Marshall, Tex.: 320°; water twr N of arpt.

Marshall, Mo. (Memi): 321° BWR; over MHL VORTAC Bldg; 2000'.

Marysville, Calif. (Yuba County): 067°; intersection of rnwys; 1500'.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500'.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000'.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650'.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000'.

Miles City, Mont.: 30°; to apch end of rnwy 4.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500'.

Milwaukee, Wis. (General Mitchell); 123°; over MKE LFR.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500' nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900'.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys; 2500'.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

Muskegon, Mich. (County): 256°; over Muskegon LFR; 1500'.

Myrtle Beach, S.C. (AFB): 061°; over apch end rnwy 5 Crescent Beach Arpt.; 500'.

Napa, Calif. (County): 045°; over rotating bcn on arpt: 500'.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt: 2000'.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlon, Iowa: 2500'.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

Newbern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy) arpt.

New Orleans, La. (Mun): 081°; over rotating bcn trml bldg on New Orleans Mun Arpt.

New Orleans, La. (Lakefront Arpt): 070°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton, Nebr.; 2000'.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750'.

North Platte, Nebr. (Lee Bird): 82.6°; over water twr Brady, Nebr.; 4000'.

Oklahoma City, Okla. (Will Rogers): 100°; rdo bcn stn; 1800'.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR int rnwys 17–35 and 12–30; 1800'.

Omaha, Nebr. (Eppley Fld): 309°; centerline of SE end of NW/SE rnwy.

O'Neil, Nebr.: 115°; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Ontario, Calif. (Intl: 347°; over and parallel with txwy btn rnwy 21 and 25; 2300'.

Oshkosh, Wis.: 017°; WOSH Commercial Rest twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200'.

Philip, S.D.: 156°; over 2712' twr 5 nmi from VOR; 3300'.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800'.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar at Southern Pines, Pinehurst-Southern Pines Arpt.

Pittsburgh, Pa.: 333°; ctl twr, Greater Pittsburgh Arpt; 3000'.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4–22 and 12–30, 6 nmi from VOR; 4400'.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500'.

Pocatello, Idaho: Lctn #1—031°; over apch end of rnwy #3; 5450'. Lctn #2—029°; over intersection or runways 21 and 25; 5450'.

Pontiac, Mich. (Municipal): 113°; over circle of stones on SE corner of arpt; 2000'.

Portland, Oreg.: (Intl): 162°; intersection 2 and discontinued 29; 1000'.

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Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

Presque Isle, Me.(AFB): 184°; Sprague ville LFR site; 2000′.

Princeton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

Pueblo Colo. (Pueblo Mem'l): 294°; over KCSJ TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

Pulaski, Va.: 066°; bldg on S side of E/W rnwy at VPI Arpt., Blackburg, Va.; 4000′.

Quitman, Tex.: 241°; water tank, town of Alba, Tex.

Rawlins, Wyo.: 065°; (Cherokee VOR), 17 nmi; 7300′.

Raymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

Red Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

Rhinelander, Wisc. (Drott Arpt): 210°; over rnwy Int; 2500′

Riverhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

Rome, Ga.: (Russell Fld): 348°; over apch end (10.8 nmi); 1600′.

Roswell, N. Mex.: 027°; over apch end rnwy 3; 400′.

Royston, Ga.: 067°; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt; 1250′.

Russell, Kans.: 091°; over water twr in center of town of Wilson, Kans.

Sacramento, Calif.: 015°; apch end rnwy 02; 100′.

St. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

Salina, Kans.: 115.5°; over town of Kipp, Kans., 12 nmi from VOR and 6 nmi SE of Mun Arpt.

Salt Flat, Tex.(8A, ELP–FTW): 335°; over the LFR.

Salt Lake City, Utah: 158°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

Samsville, Ill.:064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

Sault Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

Sayre, Okla. (Mun): 175°; over rot bcn twr; 3000′.

Sheridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 4.9 nmi; 4500′ MSL.

Shreveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

Shreveport, La. (Greater Shreveport): 175°; over the Admin Bldg.

Sinton, Tex.: 318°; over bcn on fld 0.5 nmi CRP VORTAC.

Smithwick, S. Dak.: 300°; on Hot Springs, S. Dak. Arpt at intersection E/W taxiway and N/S rnwy.

South Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

Spokane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

Stevens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

Stockton, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

Sulphur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.[illegible] nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over Anniston, Ala. Arpt.

Tallahassee, Fla. (Mun): 241°; over twr on arpt.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW a[illegible] NW/SE rnwy; 2000′.

Texarkana, Ark.: 123°; over rdo bcn; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17– and 11–29 on Houma Mun Arpt.

Thief River Falls Minn.: 129°; over RR & hiway crossi adj Hazel, Minn.; 2000′.

Thurman, Colo.: 349°; in flt over Akron VOR transmitt site; 5600′.

Topeka, Kans. (Philip Billard): 073°; at hiway intersection 1.5 nmi SE McLouth, Kans.

Traverse City, Mich. (Municipal): 342°; at intersection the N/S–E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mer Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11. nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE S rnwy, Cordele, Ga., Arpt.

Waco, Tex.: 139°; over the dam of Lake Waco.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broa cast stn; 2000′.

Waterville, Ohio: 320°; over ctl twr, Toledo Express Arp and 11.3 nmi from VOR; 2000′.

Waterville, Ohio: 320°; over ctl twr, Toledo Express B Bowling Green, Ohio-University Arpt, aprxly 4.0 n from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnw Purdue Univ Arpt; 2000′.

Wichita, Kans.: 161°; centerline of NW end of NW S rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls A Trml): 011°; at bridge over Red River 8 nmi N Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scrant Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 1 2600′.

Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2[illegible]

Willows, Calif. (Willows-Glenn): 346° Maxwell VOR: ov large green hangar NE side of arpt; 1000′.

Wilmington, N.C. (New Hanover Co.): 204°; over w radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 6 nmi.

Winona, Minn.: 102°; over orange and white transmissi line twr N bank of Mississippi River 3.8 nmi fro VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C.: 295°; over ctl twr.

Worland, Wyo. (Municipal) : 010° Boysen Reservoir VOR-TAC; over taxi strip between Trml Bldg and rnwy 16–34; 5200′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1800′.

Yankton, S.D.: 256°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl) : 166°; centerline rnwy 17–35; 400′.

GROUND

Aberdeen, S. Dak. (Saunders); 304°; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge of ramp.

Alexandria, La. (Esler Fld) : 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun) : 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton) : 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN) : 207°; letd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt) : 003°; Send on curve of taxiway 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Mun) : 038°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun) : 045°; adjt to S end of NS rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l) : Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips) : Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County) : 051°; W edge of N end of parking ramp.

Big Spring, Tex. (Howard County) : 142°; NW corner of taxistrip to rnwy 16.

Binghamton, N.Y. (Broome County) : 077°; 400′ S of ctl twr on S ramp south.

Bismark, N. Dak.: 275°; intersection of N/S taxi strip and the apch end of rnwy 13.

Blythe, Calif. (Riverside Co.) : 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml) : 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County) : 021°; taxiway in front of Admin Bldg.

Bradford, Pa. (McKean Co. Arpt) : 323°; NE txwy 282° from rnwy 32 centerline.

Bristol, Tenn. (Tri-City) : 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl) : 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Chattanooga, Tenn. (Lovell) : 332°; centerline S taxiway at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 199°; on yellow line on taxi strip immediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.) : 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Owens Fld) : 022°; compass rose on parking ramp.

Columbia, S.C. (Mun) : 331°; circle 450′ S of ctl twr alt 244′.

Columbus, Ga. (Muscogee Co.) : 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County) : 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati) : 043°; rnwy 27 E of intersection rnwys 27 and 22.

Crestview, Fla.: 104°; on center of concrete circle on rnwy.

Cross City, Fla. (Site 58, MEM–TPA) : 298°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison) : 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun) ; 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan, Ala. 186°; intersection of ramp and taxi strip NW of trml bldg.

Dubuque, Iowa: 335°; on ramp in front of terminal bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 2 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld) : 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler) : 347°; letd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Admin Bldg.

Elizabeth City, N.C. (CGAS) : Lctn #1—028°; letd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County) : 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt,

aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie) : 059° ; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet) : 068° ; apch to apron immediately W of the Amin Bldg.

Fayetteville, N.C. (Grannis) : 305° ; on rnwy turnoff in front of ctl twr.

Florence, S.C.: 235° ; on taxiway W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF) : Lctn #1—021° ; run up area on txwy at apch end of rnwy 20. Lctn #2—019° ; run up area on txwy W ctl twr at intersection or rnwy 02–20 and 14–32. Lctn #3—055° ; run up area on txwy S of ctl twr at junction with rnwy 14. Lctd #4—130° ; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118° ; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt) : 120° ; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page) : 172° ; N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF) : 030° ; on SE corner of tie down area and taxiway apchg rnwy 4.

Fort Rucker, Ala. (Cairns AAF) : Lctn #1—019° ; run up area on txwy apch end rnwy 13. Lctn #2—035° ; NW of Int rnwy 13 and 18. Lctn #3—040° ; run up area on txwy Int rnwy 13 and 18. Lctn #4—059° ; run up area on txwy N of apch end rnwy 26. Lctn #5—063° ; run up area on txwy S apch end rnwy 26. Lctd #6—058° ; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078° ; run up area on txwy W of apch end rnwy 36. Lctn #8—062° ; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116° ; on ramp N of terminal.

Goldsboro, N.C. (Seymour Johnson AFB) : 028° ; run up pad at apch end rnwy 8.

Green Bay, Wis. (Austin-Straubel) : 141° ; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greenwood, Miss.: 060° ; central taxiway adj to ramp.

Greenwood, S.C. (County) : 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098° ; on arpt.

Harrison, Ark.: 131° ; Int taxiway and ramp.

Helena, Mont. (City-Co.) ; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County) : 030° ; on runup pad apch end rnwy 3.

Hot Springs, Ark.: 245° ; taxiway adj to rnwy 5.

Houston, Tex.: 292° ; NE end rnwy 12.

Hyannis, Mass. (Barnstable Mun) : 243° ; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld) : 007° ; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.) : 202° ; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 258° ; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County) : 155° ; taxiway to rnwy 33.

Junction, Tex. (Kimble County) : 143° ; N edge of parki ramp.

Key West, Fla. (Boca Chica) : 091° ; W just N of ap end of rnwy 7.

Key West, Fla. (Int'l) : 131° ; NW portion of ramp.

Kinston, N.C. (Stallings) : 230° ; 500′ in front of Adm Bldg.

Klamath Falls, Oreg.: 294° ; 154′ N of txway in front Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350° ; on taxiway at N end N rnwy. Lctn #2—343° ; on taxiway at S end N/S rnw

La Grange, Ga.: 106° ; on compass rose at taxi strip int section aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: Intersection or ramp and txwy leading intersection of rnwys.

Lansing, Mich. (Capital City) : 053° ; center of apch e rnwy 5.

Laramie, Wyo. (Brees) : 100° ; on loading ramp.

Laredo, Tex. (AFB) : Lctn #1—137° ; off end of ra on taxiway 2, 4.8 nmi. Lctn #2—131° ; off S end ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315° ; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld) : 351° ; on run-up ar W side rnwy 19.

Las Vegas, N. Mex.: 231°, concrete ramp N of FSS Bl

Lawton, Okla.: 349° ; on trml apron at the point int secting the S taxi strip.

Little Rock, Ark. (Adams) : 314° ; on taxi strip adj junction rnwy 14.

Longview, Tex. (Gregg County) : 125° ; txwy adj to rn 13 to end of rnwy 13.

Louisville, Ky. (Bowman) : 329° ; taxiway W of rnwy

Louisville, Ky. (Standiford) : 301° ; taxiway between ra and rnwy 19.

Lubbock, Tex.: 111° ; W edge of ramp N of trml bldg.

Lufkin, Tex.: (Angelina Co. Arpt) : 328° ; Intersection ramp and taxiway in front of Trml Bldg.

Mansfield, Ohio (Mun) : 133° ; at intersection of NW a SW taxiways.

Marfa, Tex. (Alpine) : 108° ; S edge of ramp in front FSS.

Marianna, Fla.: 310° ; ESE end taxiway 6.

Marshall, Tex. (Harrison Co Arpt) : 318° ; Int of E a N/S taxiway in front of N ramp.

Martinsburg, W. Va.: 281° ; near apch end of rnwy 35.

Mason City, Iowa: 356° ; on centerline S end of N/S rnw

McAlester, Okla. (Mun) : 350° ; taxistrip at terminal ram

McAllen, Tex. (Miller Int'l) : Lctn #1—040° ; at int section E/W txwy and N/S txwy. Lctn #2— 012 in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie) : 146° ; 220′ E of FSS.

Meridian, Miss. (Ky) : 121° ; from run up ramp for rnw 23.

Midland, Tex. (Air Trml) : Lctn #1—188° ; center warm up pad for rnwy 10. Lctn #2—178° ; int txw C and ramp in front of Trml Bldg.

Mineral Wells, Tex.: 307° ; intersection of txwy and N rnwy.

Missoula, Mont. (County) : 340° ; 5′ from edge of ramp front of Admin Bldg.

Mobile, Ala. (Bates): 108°; apch end of rnwy 9.
Monroe, La. (Selman): 033°; arpt ramp in front of twr structure adj to the txwy leading to intersection of rnwys 17–35 & 4–22.
Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.
Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.
Needles, Calif. (Site 25B, LAX-AMA): 253°; on ramp in front of Admin Bldg.
New Bern, N.C.: 088°; on compass rose at ramp.
New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.
Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.
Oakland, Calif. (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.
Olympia, Wash.: 347°; on ramp in front of Admin Bludg.
Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.
Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.
Palacious, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.
Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.
Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.
Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.
Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.
Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.
Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.
Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S rnwy and E/W txwy of arpt.
Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.
Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.
Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.
Phillipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.
Pierre, S. Dak.: 250°; in front of municipal hangar.
Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.
Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.
Pontiac, Mich.: 114°; center of warmup pad S of apch end rnwy 27.
Pueblo, Colo.: 244°; painted circle with arrow on ramp W of Admin Bldg.
Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.
Raleigh, N.C.: 244°; end rnwy 5.
Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.
Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.
Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.
Redmond, Oreg.: 086°; on ramp in front of Admin Bldg 60′ W of centerline of txwy to rnwy 10–28.
Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.
Riverton, Wyo. (Mun): 178°; txwy between Admin Bldg and rnwy.
Roanoke, Va. (Woodrum): 069°; filled area rnwy 27.
Rochester, Minn.: 030°; of taxiway that enters apch end of rnwy 31.
Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415′ from centerline rnwy 1–19 and 305′ from centerline of rnwy 7–25.
Rock Springs, Wyo.: Lctn #1—266°; in center of turnaround E end rnwy 25. Lctn #2—261°; in center of turn-around W end rnwy 7.
Rockford, Ill.: 112°; apex of txwys at center of arpt.
Rocky Mount, N.C.: 263°; right 3 rnwy 33, marker.
Rome, Ga. (Russell Fld): Intersection of taxiways 200′ S of the terminal bldg.
Saginaw, Mich. (Tri-City): 280°; lctd on NE parking ramp 12′ from field edge near center txwy.
St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 500′ SE of ctl twr.
St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.
Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.
Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.
San Angelo, Tex. (Mathis): 236°; E edge of ramp in front of twr.
San Antonio, Tex. (Stinson Mun): Lctn #1: 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.
San Jose, Calif. (Mun): 095°; on ramp in front of trml bldg.
San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.
Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.
Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.
Santa Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.
Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N trml bldg.
Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000′ from apch end.
Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near edge of ramp S and W of Admin Bldg.
Sioux City, Iowa: 314°; painted circle directly in front of new twr.
Sioux Falls, S. Dak.: 148°; in line with E edge of txwy W of ctl twr, 75′ S from N edge of parking ramp.
South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400′ S of N end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°: on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250′ in front of hangar.

Topeka, Kans. (Philip Billard Arpt): 212°; N/S taxiway W of tetrahedron.

Truth or Consequences, N. Mex.: 155°; on SE/NW txwy adj to wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tuscaloosa, Ala. (Van De Grauff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on center line of NE/SW rnwy 125′ from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnw 13L.

Walla Walla, Wash. (City-County): 025°; ctr of txwy ap rnwy 20, mrkd.

Walnut Ridge, Ark.: 050°; taxi strip at parking apron a to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admi Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp ne taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee, 3 from S edge of concrete trml ramp where concre ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Admi stration Bldg.

Westfield, Mass.: 304°; from center of compass rose lc end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy E side of ramp.

Wichita Falls, Tex. (Sheppard AFB): 093°; civilian par ing ramp, outer edge of ramp, NE corner, 5.2 nmi fr VORTAC.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngtown, Ohio: 182° compass rose end of rnwy 18.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection NE/SW and NW/SE taxistrips on centerline of NE SW taxistrip.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with Agency Order AT 7100.14A)

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
tlanta, Ga.	9, 27	No turns until 3 mi, 2500' for *large acft.	
	15, 21	No turns by *large acft over more populated areas until 3 mi, 2500'.	
etts AAF, Tobyhanna Supply Depot, Pa.	14	Right hand tfc pattern.	
urlington Mun., Vt.		Single engine.	1140' MSL
		Multi engine.	1340' MSL
aldwell-Wright, Fairfield, N.J.	27	Acft shall not start crosswind leg until well past the school lctd ¼ mi to the right of the extended rnwy centerline and ¼ mi from the arpt.	
	32	Acft shall bear right as soon as practicable after take-off to avoid flying over the Fairfield township school lctd ¼ mi NW of arpt and slightly left of the extended rnwy centerline.	
hicago-Midway, Ill.		Turbine powered acft climb as rapidly as possible.	2000' AGL
hicago-OHare I'ntl Arpt., Ill.		Turbine powered acft climb as rapidly as possible.	2000' AGL
ardner, Kans.	East	Recommend alt not above 400' AGL until cross-wind leg northbound. Exit pattern NW to remain clear of tfc patterns of Olathe NAS, 3.5 mi NE.	
ansas City Fairfax Mun., Kans.		Acft under 12,500 lbs.	600' AGL
ew York, LaGuardia	13	Rgt turn and proceed over Flushing Meadow Park before turning on course.	1500'
orrance Mun., Calif.	11L	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 45 degrees from the runway departure heading and continue climb.	
	11L	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 90 degrees to the departure runway heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the right of the cross wing leg course.	
	11R	All aircraft—Climb on departure rnwy heading to 1500'.	

*Large acft—acft weighing over 12,500 lbs maximum certificated take-off weight.

Airports	*Runways*	*Departure Procedures*	*Traffic Patter Alts.*
	29R	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 45 degrees from the runway departure heading and continue climb.	
	29R	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 90 degrees to runway departure heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the left of the cross wind leg course.	
	29L	All aircraft—Upon reaching an altitude of of 500 feet MSL, make left turn from the departure runway heading to intercept an area approximately over the Pacific Coast Highway, then proceed in a westerly direction until reaching 1,500 feet MSL or the shoreline.	
Wilkes-Barre Scranton, Avoca, Pa.	16, 22	Right hand tfc pattern.	

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled fective Dec. 19, 1964:

Location	Procedure	Action
LOW FREQUENCY RANGE		
troit, Mich.—Detroit City Arpt	No. 1, Amdt. 10	Revised
AUTOMATIC DIRECTION FINDING		
zeman, Mont.—Gallatin Fld	No. 1, Amdt. 1	Revised
troit, Mich.—Detroit City Arpt	No. 1, Amdt. 5	Revised
troit, Mich.—Metropolitan Wayne Co., Arpt	No. 1, Amdt. 11	Revised
troit, Mich.—Willow Run Arpt	No. 2, Amdt. 13	Revised
lon, Mont.—Dillon Arpt	No. 1, Amdt. 1	Revised
VHF OMNIRANGE		
troit, Mich.—Detroit City Arpt	No. 1, Amdt. 3, efctv 1 Feb 64	Cancelled
troit, Mich.—Detroit City Arpt	No. 1, Orig., efctv 19 Dec 64	Established
troit, Mich.—Detroit City Arpt	No. 2, Amdt. 3, efctv 15 Feb 64	Cancelled
troit, Mich.—Detroit City Arpt	No. 2, Orig., efctv 19 Dec 64	Established
u Claire, Wisc.—Eau Claire Mun Arpt	No. 1, Amdt. 10	Revised
wistown, Mont.—Lewistown Arpt	No. 1, Amdt. 4	Revised
tman, N.J.—Pitman Arpt	No. 1, Amdt. 1	Revised
ntiac, Mich.—Pontiac Mun Arpt	No. 2, Amdt. 1	Revised
TERMINAL VOR		
zeman, Mont.—Gallatin Fld	No. TerVOR-(R-259), Amdt. 2	Revised
llas, Tex.—Dallas Love Fld	No. TerVOR-18, Amdt. 10	Revised
lon, Mont.—Dillon Arpt	No. TerVOR-(R-407), Amdt. 2	Revised
nard, Calif.—Oxnard-Ventura Co. Arpt	No. TerVOR-7, Orig., efctv 11 Mar 61	Cancelled
nard, Calif.—Oxnard-Ventura Co. Arpt	No. TerVOR R-056, Orig., efctv 11 Mar 61	Cancelled
INSTRUMENT LANDING SYSTEM		
kersfield, Calif.—Meadows Fld	No. ILS-12L, Amdt. 1	Revised
troit, Mich.—Metropolitan Wayne Co., Arpt.	No. ILS-3L-R, Amdt. 11	Revised
troit, Mich.—Willow Run Arpt	No. ILS-23R&L, Amdt. 6	Revised
ngview, Tex.—Gregg Co. Mun Arpt	No. ILS-31, Amdt. 3	Revised
oux Falls, S. D.—Joe Foss Fld	No. ILS-21, Amdt. 5	Revised
RADAR		
llas, Tex.—Dallas Love Fld	No. 1, Amdt. 10	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancell effective Dec. 26, 1964:

Location	Procedure	Action
LOW FREQUENCY RANGE		
Ephrata, Wash.—Ephrata Mun	No. 1, Amdt. 8	Revised
Redmond, Oreg—Roberts Fld	No. 1, Amdt. 6	Revised
Yakataga, Alaska—Yakataga Arpt	No. 1, Amdt. 10	Revised
AUTOMATIC DIRECTION FINDING		
Bremerton, Wash.—Kitsap Co.	No. 1, Amdt. 2	Revised
Casper, Wyo.—Casper Air Terminal	No. 1, Amdt. 2	Revised
Casper, Wyo.—Casper Air Terminal	No. 2, Amdt. 3	Revised
Detroit Mich.—Detroit Metropolitan Wayner Co.	No. 2, Amdt. 2	Revised
Johnson City, Tex.—Johnson City Arpt	No. 1, Amdt. 4	Revised
Pensacola, Fla.—Pensacola Mun (Hagler)	No. 1, Amdt. 10	Revised
Schenectady, N.Y.—Schenectady-Co.	No. 1, Amdt. 4	Revised
Schenectady, N.Y.—Schenectady-Co.	No. 2, Amdt. 3	Revised
Utica, N.Y.—Oneida Co.	No. 2, Orig., efctv	Establish
VHF OMNIRANGE		
Casper, Wyo.—Casper Air Terminal	No. 1, Amdt. 5	Revised
Denver, Colo.—Stapleton Intl Arpt	No. 1, Amdt. 6	Revised
Ephrata, Wash.—Ephrata Mun	No. 1, Amdt. 7	Revised
Indianapolis, Ind.—Indianapolis Mun (Weir-Cook)	No. 1, Amdt. 13	Revised
Mobile, Ala.—Bates Fld	No. 1, Amdt. 13	Revised
Roseburg, Oreg.—Roseburg Mun	No. 1, Amdt. 2	Revised
Valdosta, Ga.—Valdosta Mun	No. 1, Amdt. 12	Revised
Yakima, Wash.—Yakima Mun	No. 1, Amdt. 5	Revised
TERMINAL VOR		
Gulfport, Miss.—Gulfport Mun	No. TerVOR-13, Amdt. 5	Revised
Salinas, Calif.—Salinas Mun	No. TerVOR-13, Amdt. 4	Revised
VOR/DME		
Monroe, La.—Selman Fld	No. 1, Orig.	Establish
Monroe, La.—Selman Fld	No. 2, Orig.	Establish
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 1, Amdt. 2	Revised
Salinas, Calif.—Salinas Mun	No. 2, Amdt. 2	Revised
INSTRUMENT LANDING SYSTEM		
Casper, Wyo.—Casper Air Terminal	No. ILS-7, Amdt. 10	Revised
Casper, Wyo.—Casper Air Terminal	No. ILS-25, Amdt. 7	Revised
Indianapolis, Ind.—Indianapolis Mun	No. ILS-13, Amdt. 1	Revised
Indianapolis, Ind.—Indianapolis Mun	No. ILS-22, Amdt. 6	Revised
Pensacola, Fla.—Pensacola (Hagler) Mun	No. ILS-16, Amdt. 9	Revised
Utica, N.Y.—Oneida Co., Arpt	No. ILS-15, Orig.	Establish
Wheeling, W. Va.—Wheeling-Ohio Co., Arpt	No. ILS-3, Amdt. 6	Revised
Yakima, Wash.—Yakima Mun	No. ILS-27, Amdt. 11	Revised
RADAR		
Austin, Tex.—Robert Mueller Mun	No. 1, Amdt. 4	Revised
Cleveland, Ohio—Cleveland-Hopkins Arpt	No. 1, Amdt. 12	Revised
Fort Ord, Calif.—Fritzsche AAF	No. 1, Amdt. 3	Revised
Indianapolis, Ind.—Indianapolis Mun (Weir-Cook)	No. 1, Amdt. 13	Revised

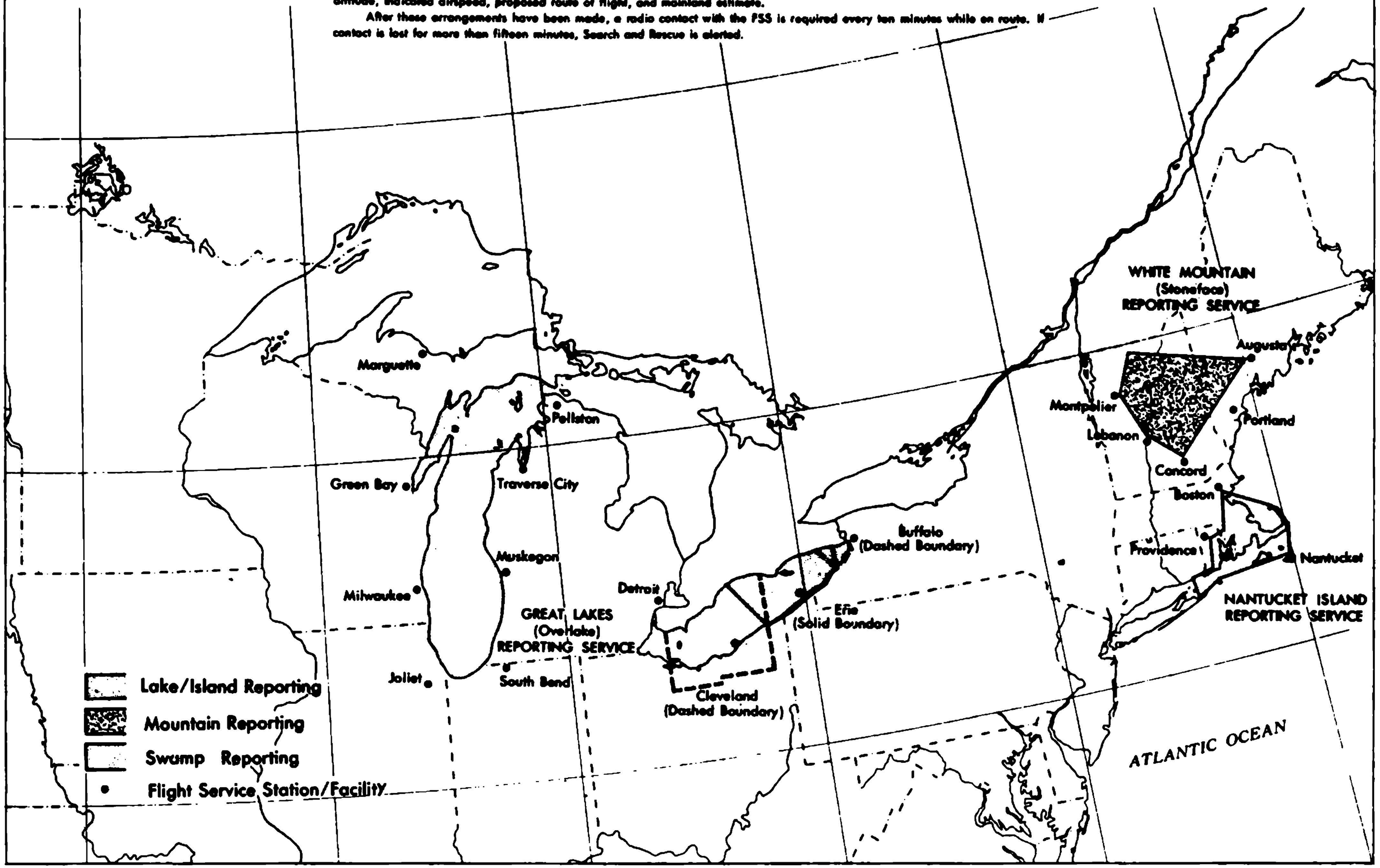
FLIGHT SERVICE STATION (FSS)

Lake, Island and Mountain Reporting Service

This service provides flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.

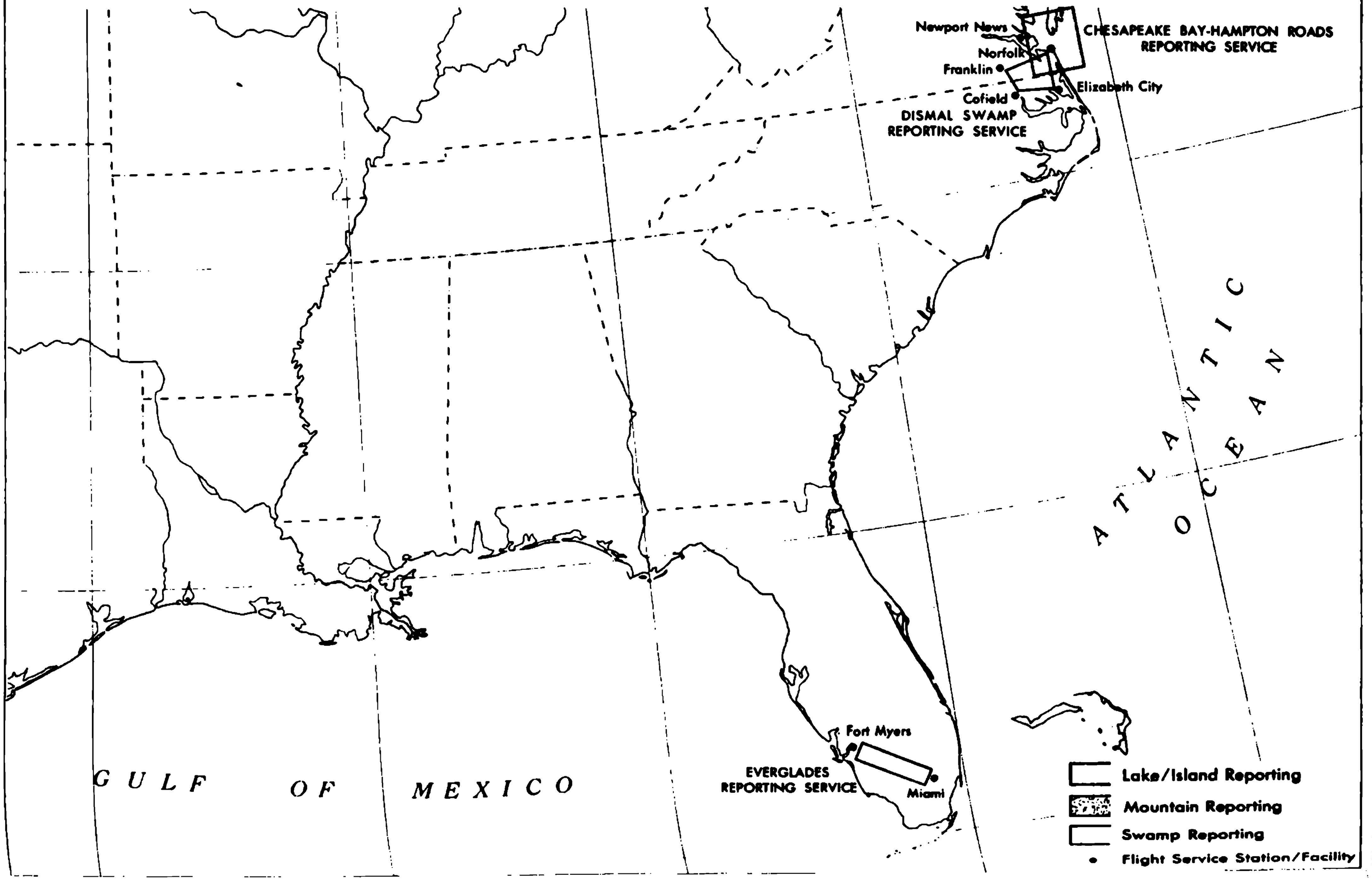
Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface", "Overlake", etc., are indicated on the following charts. To obtain this service, contact the FSS by telephone or radio giving present position, type aircraft, altitude, indicated airspeed, proposed route of flight, and mainland estimate.

After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.



FLIGHT SERVICE STATION (FSS)

Lake, Island and Mountain Reporting Service



ROCKY MOUNTAIN REPORTING SERVICE

EFFECTIVE OCTOBER 1, 1964

for VFR aircraft operating between Denver and Grand Junction via Corona Pass and via Monarch Pass. To distinguish it from similar services available in other parts of the country it will be referred to as "Rocky Mountain Reporting Service". This service cannot be offered on an area or random route basis because of the effect of our terrain extremes on reliability of communications at the relatively low cruising altitudes preferred or found necessary by most general aviation pilots. A safe altitude over the lowest terrain seems to be the rule (i.e. through or over recognized mountain passes).

The routes via Corona Pass and Monarch Pass, depicted on the chart have been flight checked and communications found to be reliable at no less than the altitudes shown.

"Rocky Mountain Reporting Service" shall be available to all VFR aircraft upon request, whether or not operating on a regular flight plan.

REQUIREMENTS

1. Aircraft must be equipped with functioning 2-way radio capable of receiving VOR and transmitting 122.1mc.
2. Pilot must fly prescribed route at an altitude no less than established MRA (Minimum Reception Altitude).
3. Pilot must arrange for accurate time of departure to be received by the FAA facility through which the service was requested.
4. Pilot must radio a position report every ten minutes as follows, whether eastbound or westbound:

   CORONA ROUTE

   To Denver Radio while operating between Denver and Corona Pass (vicinity of Moffat Tunnel, west of Tolland, Colorado).

   To Eagle Radio (through Kremmling VOR) between Corona Pass and vicinity of Glenwood Springs.

   To Grand Junction Radio between vicinity of Glenwood Springs and Grand Junction.

   MONARCH ROUTE

   To Denver Radio (through Denver or Kiowa VOR) between Denver and Lake George Intersection (Cheesman Reservoir). To Denver Radio (through Kiowa VOR only) between the Intersection and Elevenmile Reservoir, or west of Cripple Creek, Colorado.

   To Pueblo Radio between Elevenmile Reservoir or west of Cripple Creek and Salida, Colorado.

   To Grand Junction Radio (through Gunnison VOR) between Salida and Grand Junction.

   Pilots may file for all or any portion of either route, i.e. on a flight from Denver to Grand Junction, a pilot may request the service from Denver to Kremmling only.

   (If contact with the aircraft is lost for more than 15 minutes, Search and Rescue will be alerted.)
5. The service may be terminated at any time upon request of the pilot.
6. In case of aircraft radio failure, the pilot must land at nearest airfield and make telephone notification to either Denver, Eagle, Pueblo or Grand Junction Radio.

Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

MILITARY CLIMB CORRIDORS

ALL FLIGHTS desiring to traverse these areas must obtain prior approval from the Appropriate Authority and ma tain continuous listening watch on the appropriate frequency while traversing the corridor. The list of corrido appropriate authority and frequencies follows:

Corridors	Appropriate Authority	Frequencies
Bangor (Dow AFB) Maine	Dow AFB Apch Ctl	126.2; 363.8; 122.5G
Charleston AFB/Mun., S.C.	Charleston Apch Ctl	119.3; 319.8; 122.5G
Columbus (Lockbourne AFB), Ohio	Columbus Apch Ctl	123.7; 122.5G; 360.6
Falmouth (Otis AFB), Mass.	Otis RAPCON	124.7; 118.2; 122.5G
Glasgow (Glasgow AFB), Mont.	Glasgow AFB Apch Ctl	126.2; 236.6; 122.5G; 363.8
Goldsboro (Seymour Johnson AFB), N.C.	Seymour Johnson Apch Ctl	119.7; 122.5G
Grand Forks (Grand Forks AFB), N.D.	Grand Forks AFB Apch Ctl	118.1; 363.8; 122.5G
Grandview (Richards-Gebaur AFB), Mo.	Olathe RAPCON	363.8; 124.7; 122.5G
Houston (Ellington AFB), Texas	Houston Apch Ctl	118.1; 284.6; 122.5G
Klamath Falls (Kingsley Fld), Ore.	Klamath Falls Apch Ctl	118.5; 381.6
Limestone (Loring AFB), Me.	Loring AFB Apch Ctl	122.5G; 363.8
Madison (Truax Fld), Wisc.	Truax Tower	120.1; 350.3; 122.5G
Marquette Co. (K.I. Sawyer AFB), Mich.	Sawyer Apch Ctl	122.5G; 119.1; 259.3; 363.8
Merced (Castle AFB), Calif.	Castle AFB Apch Ctl	118.9; 122.5G; 379.4
Minot AFB, North Dakota	Minot AFB Apch Ctl	363.8; 118.5; 122.5G
Mt. Clemens (Selfridge AFB), Mich.	Selfridge AFB Apch Ctl	126.2; 363.8; 122.5G
New Orleans (NAS New Orleans), La.	New Orleans Center—5000' & above, IFR	126.0; 323.2
	New Orleans Apch Ctl—VFR	118.1; 122.7G; 248.7
Norfolk (Langley AFB), Va.	Norfik Apch Ctl	350.3; 125.7; 122.5G
Oscoda (Wurtsmith AFB), Mich.	Wurtsmith AFB Apch tl	126.2; 122.5G
Oxnard AFB, Calif.	Ventura Apch Ctl	124.7; 319.2; 122.5G
Portland Intl. Arpt., Oregon	Portland Intl Apch Ctl	124.9; 122.7G; 290.3
Rome (Griffiss AFB), New York	Griffiss Apch Ctl	118.5; 363.8; 122.5G
San Antonio (Kelly AFB), Tex.	San Antonio Apch Ctl	122.5G; 123.9; 126.5; 134.1; 353.5
San Rafael (Hamilton AFB), Calif.	Hamilton AFB Apch Ctl	122.5G; 126.2
Sault Ste. Marie (Kincheloe AFB), Mich.	Kincheloe Apch Ctl	118.3; 122.5G; 363.8
Victorville (George AFB), Calif.	Edwards Apch Ctl	124.4; 127.1; 137.65; 335.6; 122.5
Westhampton Beach (Suffolk AFB), N.Y.	Suffolk Apch Ctl	126.2; 122.5G; 236.6
Wrightstown (McGuire AFB), N.J.	McGuire Apch Ctl	122.5G; 110.6T; 134.1; 126.2

T—Transmits G—Guards

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open civil fliers only in emergency or with prior permission; my Air Fields are open to civil aircraft on authorizan of the Air Field Commander.

For Air Force installations, prior permission should requested at least 30 days prior to first intended land- from Headquarters USAF (AFOAPDA) via the Comnding Officer of the field concerned (who has auority to approve landing rights for certain categories civil aircraft). For use of more than one Air Force tallation, requests should be forwarded direct to Hq AF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be reested from the Chief of Naval Operations (OP 532) the Commanding Officer of the field concerned (who the authority to approve landing rights for certain egories of civil aircraft).

For Coast Guard fields prior permission should be reested from the Commandant, U.S. Coast Guard via the manding Officer of the field.

However, with minor exceptions, authority to use Air ce and Navy fields is granted only to aircraft on ernment business, or when no suitable civil airport is ilable in the vicinity. Use of Coast Guard fields is ited to persons on government business only when re is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil craft at military airports, they shall be conducted in ordance with the procedures and minimums approved the military agency having jurisdiction over the airt.

December 1964

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
horage	FAA	×	
boa	FAA	×	
d Bay	FAA	×	
llas	BNF	×	
im	FAA	×	
nolulu	ARINC	×	×
mi	ARINC	×	×
w York	ARINC	×	×
w Orleans	ARINC	×	×
nawa	ARINC	×	×
go Pago	FAA	×	
nt Barrow	WEN	×	
n Francisco	ARINC	×	×
mya	FAA	×	
n Juan	ARINC	×	×
ttle	ARINC	×	×
ke Island	FAA	×	

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 12, April 1964. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS):

The FAA is conducting a series of operational tests at Kennedy, Chicago O'Hare, San Francisco, and Van Nuys Airports to determine the feasibility of automatically broadcasting routine, noncontrol information on the voice feature of the VOR, VORTAC, VOT or a discrete VHF frequency serving the airport. Routine noncontrol information such as ceiling, visibility, wind, altimeter, runways in use, and other pertinent information are automatically broadcast and updated as necessary. Pilots participating in these evaluations should, on initial contact with the tower or approach control, repeat the phonetic alphabet code word appended to the recorded broadcast. This will indicate that he has received the latest operational tests.

Tests are being conducted on the following navaids:

Kennedy (departure information) JFK VORTAC 115.9 mc. Arrival information: DPK VORTAC 111.2 mc; COL VORTAC 108.2 mc.

Chicago O'Hare (arrival and departure information) 124.2 mc; ORD VORTAC 111.6 mc.

Van Nuys (arrival and departure information) VOT 109.0 mc.

December 1964

SPECIAL CIVIL AIR REGULATION NO. 456

Effective immediately the provisions applicable under Special Civil Air Regulation No. 456 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-368, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-368, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

December 1964

Amendment 91-5 to the FAR

Amendment 91-5, effective July 17, 1964, restates the circumstances under which pilots may exceed the maximum speeds set forth in Section 91.85(c) (New) of the Federal Aviation Regulations. The last sentence of FAR 91.85(c) has been aaended to read, "However, if the minimum airspeed required or recommended in the airplan flight manual to maintain safe maneuverability or required by military normal operating procedures greater than the maximum speed prescribed in this paragraph, the aircraft may be operated at that minimum speed."

December 1

Exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations

The Department of the Air Force has been issued exemption from the provisions of Section 91.109 of F 91 of the Federal Aviation Regulations to conduct cer Radar Bomb Scoring (RBS) training missions at above Flight Level 300 within 75 nautical miles of sites listed below. A navigation aid will be listed to fine the center of the complex if such an aid is so cated. If a NAVAID is not located at the center, center will be defined by bearing/distance from a F Altitude Navigation Aid.

The NIKE/RBS Complexes used are:

Providence 280°/35NM
Windsor VORTAC
Presque Isle 087°/20NM
Kennedy VORTAC
Boston VORTAC
Rapid City 110°/33NM
Dupree VORTAC 010°/114NM
Syracuse VOR 018°/48NM

PILOT-TO-FORECASTER WEATHER SERVICE

Pilot-to-Forecaster Service (PTFS) in the general of the Washington ARTCC is provided for the pur of the direct pilot/forecaster exchange of meteorolo information when **weather conditions are critical, chan rapidly or when the direct advice of a professional avia meteorologist is considered necessary.** Routine requests weather information or pilot reports should be dire to the nearest FAA Flight Service Station (FSS).

PTFS is available on the radio frequency of 1 megacycles (mc) within communications range of following FAA FSS locations:

Washington, D.C.
Elkins, West Virginia
Richmond, Virginia
Roanoke, Virginia
Front Royal, Virginia
Rocky Mount, North Carolina

Air/ground calls should be made to "Washington F caster" for direct communications with a U.S. Wea Bureau Meteorologist who is currently familiar w weather in the area. This service is available from 12 to 0200Z (7:00 a.m. to 9:00 p.m., EST). Emerg weather service during other periods may be m available by contacting the flight service sta (when VFR) or the Washington ARTCC (when IF and requesting that "Washington Forecaster" comm cate on 122.6 mcs.

December 1

VFR PRACTICE INSTRUMENT APPROACH PROCEDURES

VFR practice instrument approach procedures at the following locations are published for and used by USAF Air Training Command pilots:

Cotulla, Tex.	Radio Beacon	JAL–907–ADF
Draughon-Miller Arpt. Temple, Tex	VOR	JAL–809–VOR
Cotulla, Tex.	VOR	JAL–907–VOR
Howard County Arpt. Big Spring, Tex.	VOR	JAL–5019–VOR
Rock Springs, Tex.	VOR	JAL–111–VOR–3
Sequin AF Aux., Tex.	Beacon	AL–5223–ADF
Vance AFB, Woodring, Okla.	VOR	JAL–135–VOR–3

These approach charts are published by the USAF Aeronautical Chart and Information Center in a loose-leaf format. Civil aviation requests for these charts should be submitted to the Director, Coast and Geodetic Survey, 14th and Constitution Avenue, N.W., Attention: Distribution Division Washington, D.C. 20230.

December 1964

MEA, MCA, MOCA, MRA, MAA

Efctv immediately: (1) MOCA for V–467 between HUO and INT 108 M SAX and 350 M LGA is 2800′ vice 1900′; (2) following flight procedures authorized: V–68 HRL to MFE MEA 1900′ vice 1500′. V–15, V–76 GLS to HOU MEA 2200′ vice 1700′; description of J16 PDT–HIA is changed as follows: MEA 27,000′ with changeover point 99 NM from HIA, 173 NM from PDT without ATC radar guidance. Navigational gap of 24 NM. MEA 23,000′ authorized with ATC radar guidance, changeover point 66 NM from HIA, 162 NM from PDT a navigational gap of 47 NM. Continuous navigational signal does not exist below 32,000′; (4) J96–505 SEA VOR to U.S. Canadian boundary unusable due to lack of navigational guidance; (5) J10 FMN to PRC is changed as follows: MEA 18,000′ authorized with ATC radar guidance. Continuous navigation coverage does not exist below 21,000 at 18,000′ signal coverage gap exist from 114 NM NE of PRC to 114 NM SW FMN. J30 DEN to ONL is changed as follows: Efctv Imediately MEA 23,000′ except 20,000′ thru 22,000′ authorized with ATC radar guidance. Continuous navigation coverage does not exist below 27,000′. At 20,000′ signal coverage gap exists from 137 NM NE DEN to 137 NM SW ONL. J54 ALS to GCK is changed as follows: MEA 19,000′ except 18,000′ authorized with ATC radar guidance. Continuous navigation coverage does not exist below 21,000. At 18,000 signal coverage gap exist from 131 NM SW GCK to 88 NM NE ALS. J60 DEN to GJT is changed as follows: MEA 18,000′ continuous navigation signal does not exist below 20,000′. At 18,000′ signal coverage gap exists from 77 NM SW DEN to 103 NM NE GJT. The following change is made to amendment 120, efctv 11/12/64: delete 2500′ MOCA on V–17W from GAG to LBL.

753-036 O - 64 - III-7

SPECIAL CIVIL AIR REGULATION NO. SR 454A

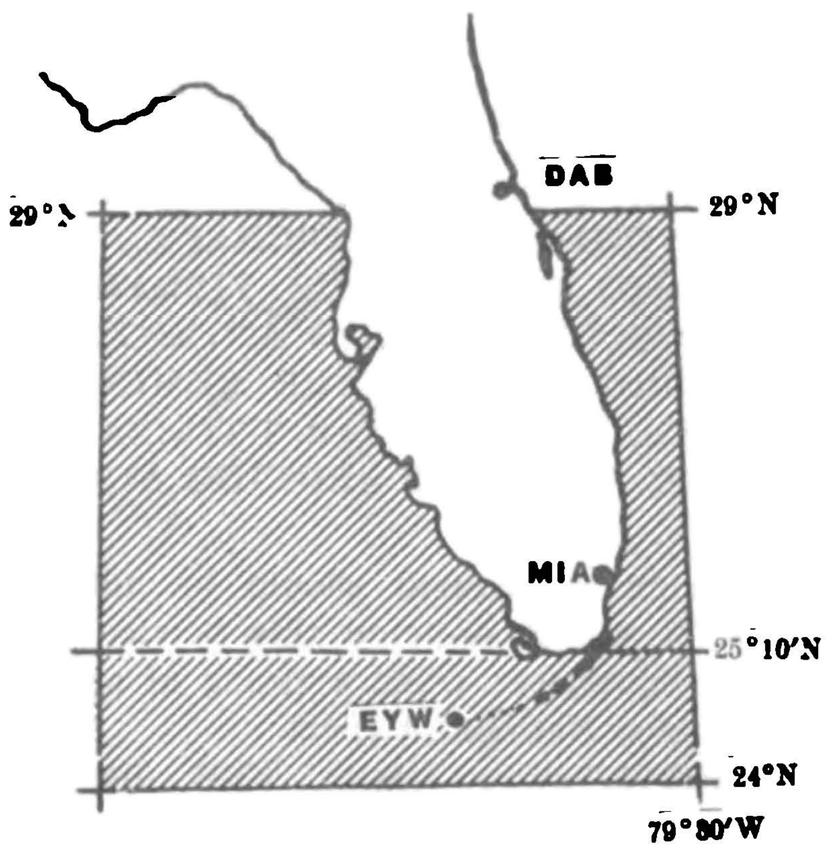
The following special rules of SR 454A are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SR 454A is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



Washington DISTRICT OF COLUMBIA

TEST EVALUATION OF VFR ARRIVAL AND DEPARTURE RADAR TRAFFIC INFORMATION SERVICE

In Washington, D.C. Terminal Area

Beginning on June 23, 1961, at 0401 GMT, and until further advised, the FAA will conduct an evaluation of VFR arrival and departure radar traffic information service in the Washington, D.C., Terminal Area. Pilot participation is urged, but is not mandatory.

VFR Radar Traffic Information Area

GENERAL PROCEDURES: The Washington VFR Radar Traffic Information Area is that airspace which extends upwards to an altitude of four thousand feet, MSL inclusive, and is encompassed by a line connecting the following points: Rockville, Laurel, Shadyside RBN, Hughesville, Indian Head, Centreville, and Herndon. (See chart on facing page.)

Pilots of aircraft without radio, as well as those unable to contact VFR Arrival or Departure Information Service on assigned frequencies, are urged to conform to routing via designated VFR arrival and departure routes.

Pilots operating VFR flights destined for Washington National Airport should follow the designated arrival and departure routes listed herein in order to maintain a safe, orderly flow of air traffic in the Washington area.

All aircraft arriving or departing Washington National Airport should proceed with caution when in the vicinity of Andrews AFB.

If destination is other than Washington National Airport, so advise.

THE RADAR SERVICE DESCRIBED HEREIN IS NOT INTENDED TO RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. IT IS PROVIDED TO AID HIM IN HIS VISUAL SURVEILLANCE BY CALLING TO HIS ATTENTION PERTINENT TRAFFIC. PILOTS ARE REMINDED THAT THE SURVEILLANCE RADAR UTILIZED BY THE CONTROLLER DOES NOT PROVIDE ALTITUDE INFORMATION.

The following procedures should be adhered to by pilots of VFR flights desiring this service and having proper radio equipment when arriving at and departing from Washington National Airport.

ARRIVAL PROCEDURES: Arriving VFR flights desiring traffic information should contact Washington Traffic Information Service on 119.3 mcs/338.2 mcs UHF when approaching from Laurel, Shadyside RBN, and Hughesville; or on 120.1 mcs/306.3 mcs UHF when approaching from Indian Head, Centreville, Herndon, and Rockville. When practicable, pilots should follow the appropriate VFR arrival route as indicated (See Chart) and maintain listening watch on traffic information frequency until further advised. Landing information will be furnished to aircraft destined for Washington, and radar traffic information will be provided until the pilot is advisesd to contact the tower.

DEPARTURE PROCEDURES: VFR flights departing from Washington Airport desiring traffic information should request the service on initial contact to Ground Control. The pilot should also advise his proposed direction of flight; e.g., "VFR Information Service, Laurel." Following take-off, the tower will advise the pilot when to contact Washington Information Service and the frequency to be used. Flights proceeding to Laurel, Shadyside RBN, and Hughesville will use 119.3 mcs/338.2 mcs UHF. Flights proceeding to Indian Head, Centreville, Herndon, and Rockville will use 120.1 mcs/306.3 mcs UHF. Pilots should depart the Washington Terminal area via the designated VFR departure route most nearly aligned with their destination. They should also maintain listening watch on the appropriate information service frequency until cleared to leave the frequency or beyond the perimeter fix.

Washington National Airport

Arrival Routes

Northeast—Report Laurel. Proceed well right of Washington-Baltimore Parkway to Beltsville, then north to Washington to Chain Bridge.

East—Report Shadyside RBN. Proceed via Brandywine to Fort Washington. Caution—Military conventional and jet traffic vicinity of Andrews AFB Control Zone.

Southeast—Report Hughesville. Proceed via Waldorf to Fort Washington. Caution—Andrews jet penetration inbound on Andrews VOR 187 degree radial descending to cross Andrews LFR at 1500 feet MSL.

Southwest—Report Indian Head. Proceed on right side of Potomac River until past Mount Vernon.

West—Report Centreville. Proceed well right of U.S. Route 29 highway to Falls Church.

Northwest—Report Herndon. Proceed well right of Potomac River to Falls Church.

North—Report Rockville. Proceed well left of Potomac River to Chain Bridge.

Departure Routes

Northeast—Proceed via west bank of Anacostia River to Riverdale and well right of Washington-Baltimore Parkway until past Beltsville Airport.

East—Proceed via Fort Washington and Brandywine to Shadyside RBN.

Southeast—Proceed via Fort Washington and LaPlata.

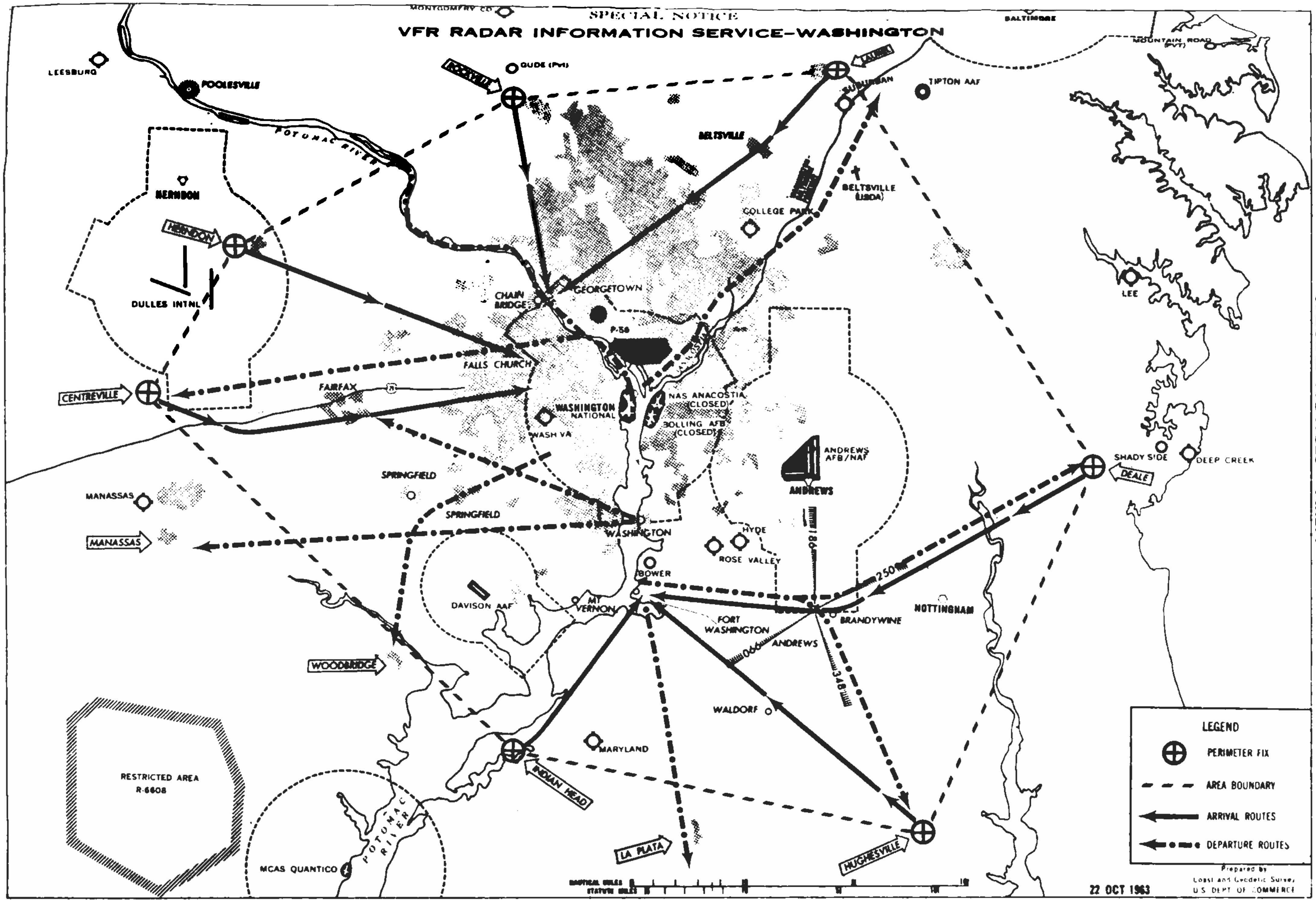
Southwest—Proceed well right of Potomac River until past Woodbridge.

West—North departures proceed well right of U.S. Route 29 highway until past Centreville. South departures proceed via Washington LFR to Manassas.

Northwest—North departures proceed via Potomac River until leaving the area. South departures proceed via Washington LFR to Fairfax.

SPECIAL NOTICE

VFR RADAR INFORMATION SERVICE—WASHINGTON



Atlanta GEORGIA

TERMINAL RADAR SERVICE AREA

(An Evaluation of Terminal Area Positive Separation)

The Air Traffic Service, FAA, has developed a program to evaluate a concept of providing a positive separation service to aircraft operating within a terminal area. The airspace area where this evaluation will be conducted will be known as a Terminal Radar Service Area (TRSA). During the evaluation period, a true positive separation environment will not be guaranteed.

This program is in consonance with the report of the Task Force on air traffic control (Project Beacon) and the subsequent Air Traffic Service analysis of the report.

A program for positive separation of aircraft operating in terminal airspace, regardless of weather conditions, must be able to satisfy the many varied requirements of both the VFR and IFR users without imposing excessive restrictions to their operations, yet it must be within the capabilities of the air traffic control system.

In consideration of these two major stipulations, the program will initially be implemented on a voluntary basis, whereby pilot participation will be encouraged rather than required. In this respect, it is obvious that considerable cooperation and effort must be expended jointly by the Federal Aviation Agency (FAA) and the airspace users, if a realistic evaluation is to be made.

Generally, the objective of this evaluation is to determine the following:

1. Airborne equipment and pilotage requirements.
2. Operating personnel, equipment, procedural and airspace requirements.
3. Impact on the over-all terminal operation.
4. Capability of the air traffic control system to provide positive separation to all aircraft operating within a terminal area.
5. Need for regulatory action.

Following a thorough and complete analysis of this evaluation, FAA in cooperation with the users, will determine the necessary requirements for implementation of a positive separation system in high activity terminal areas, wherein all aircraft would be provided separation by the ATC system, irrespective of weather conditions.

The size and shape of the TRSA will vary depending upon operational requirements. This area may be shown as a circular radius or other configuration and should be no larger than absolutely necessary to adequately perform the control functions.

Implementation

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia, as the first of selected locations to thoroughly evaluate the program.

In addition to the following details and procedures, information has been provided on appropriate charts, other aeronautical flight information publications an through representative user organizations.

The Atlanta Terminal Radar Service Area is that airspace extending upward from the surface to and including 6,000 feet MSL within the Atlanta Airport Control Zone; and, in addition, that airspace extending from 2,000 feet MSL to and including 6,000 feet MSL within a 15 statute mile radius of the Atlanta Airport, excluding Dobbins AFB Control Zone and the airspace within a 1½ mile radius of the Edwards Skyport and the Gunn Airport; EXCEPT that the base of the airspace area within the Fulton County Airport control zone is 2,500 feet MSL.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlan TRSA shall be operated in accordance with curre IFR procedures.
2. **VFR Flights**

a. Airports within the Atlanta TRSA:

(1) Arriving aircraft will be expected to conta Atlanta Terminal Control on specified fr quencies and in relation to geographical fix listed in d. below.

(2) Departing aircraft will be advised by the tow when to contact departure or terminal co trol and the frequency to be used.

b. Airports underlying the Atlanta TRSA:

(1) Unless flight will be conducted below the flo of the TRSA, arriving aircraft will be e pected to contact Atlanta Terminal Contr on specified frequencies and in relation geographical fixes listed in d. below.

(2) Departing aircraft will be expected to conta Atlanta Terminal Control on the frequen specified in d. below as soon as possible aft becoming airborne if it is desired that flig be conducted within the TRSA.

c. Transiting Aircraft—Aircraft desiring to tran the TRSA will be expected to contact Atlan Terminal Control on specified frequencies and relation to geographical fixes listed in d. below.

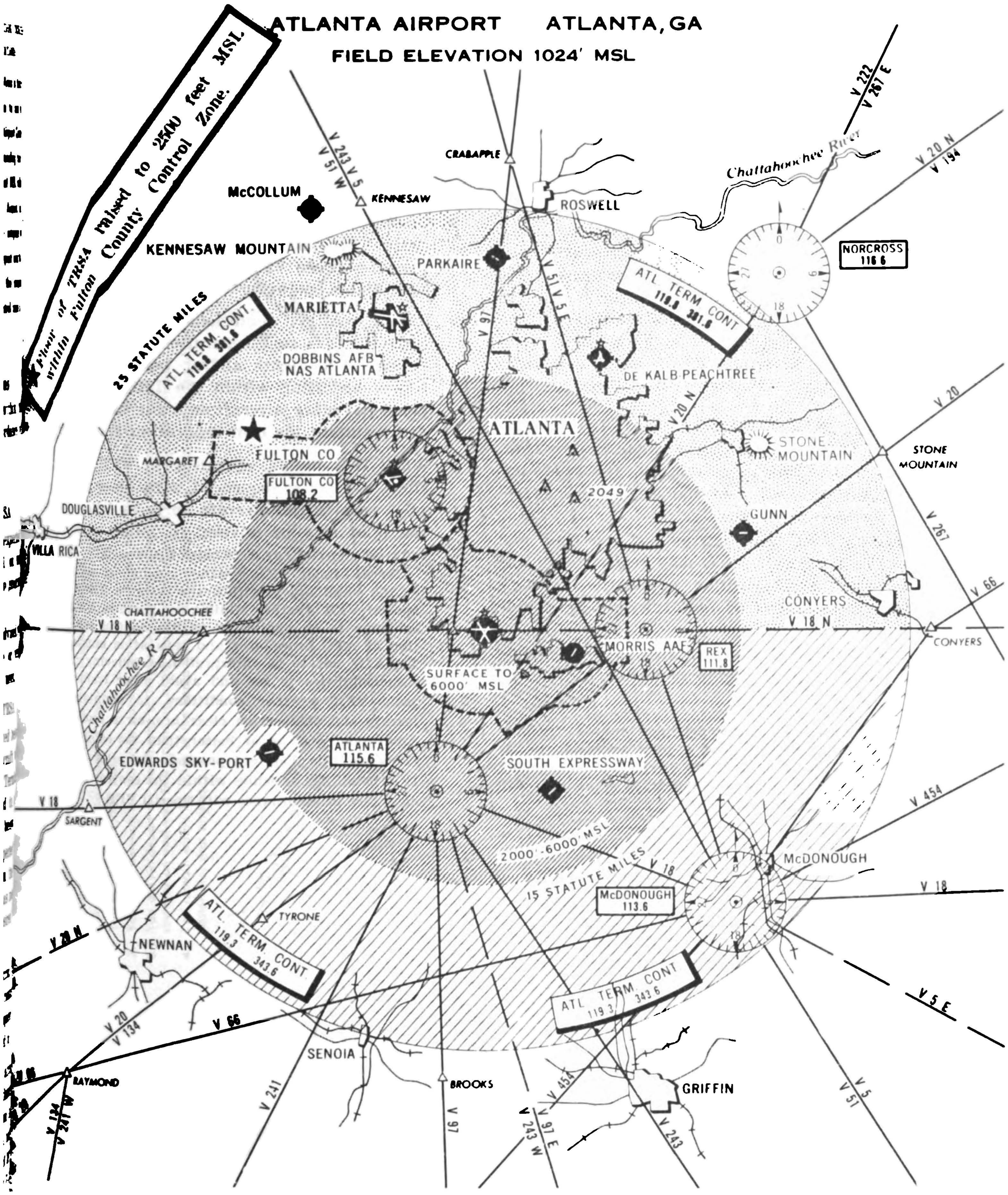
d. Frequencies and Fixes—En route aircraft shou establish communications with Atlanta Termin Control approximately 25 miles from Atlanta Ai port. Aircraft entering the TRSA north of Ai way V–18N should use 119.8 or 381.6 MC; Aircra entering the TRSA south of Airway V–18N shou use 119.3 or 343.6 MC. Aircraft not equipped f two-way communications on these frequenci should transmit on 122.7 MC and listen on th appropriate frequency specified above.

In addition to published radio fixes and oth prominent geographical fixes, the following ge

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024' MSL



LEGEND

TERMINAL RADAR SERVICE AREA — 2000'-6000' — SURFACE TO 6000'

CONTACT OR CALL-UP AREAS — North of V 18 N — South of V 18 N

Prepared by
Coast and Geodetic Survey
U.S. DEPARTMENT OF COMMERCE

GEORGIA

graphical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	"	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conveyors	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified rad targets will be provided on a workload permittii basis.
5. When VFR aircraft are being held within the TRS and control is based thereon, the ATC clearance w specify the distance (radius) and, if appropriate, t direction from the geographical fix within whi holding is to be accomplished. In such cases, t pilot will be advised when to EXPECT FURTHE CLEARANCE.
6. During weather conditions equal to or better th basic VFR, 500 feet vertical separation may be e ployed between VFR flights and/or between VFR a IFR flights operating within the TRSA.
7. During weather conditions equal to or better th basic VFR, visual separation may be employed l tween VFR flights and/or between VFR and I flights operating within the TRSA when a pilot ports the other aircraft in sight and advises that can maintain his own separation from such aircra
8. When IFR flights, operating in VFR weather con tions, are being sequenced with other traffic and t pilot reports the aircraft he is to follow is in sigl the pilot may be advised to follow such traffic a may be cleared for a "visual approach."

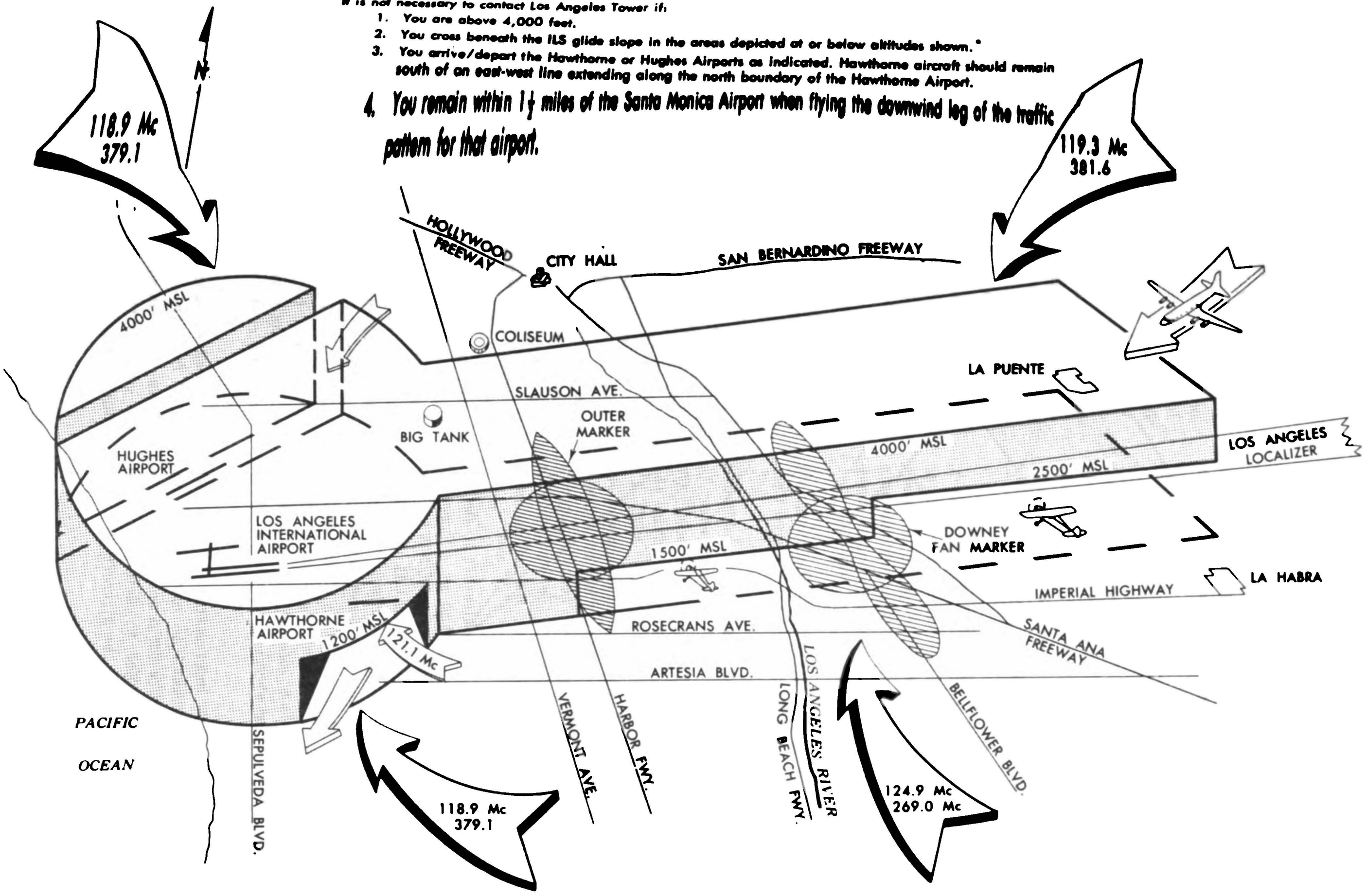
NOTE.—Basic VFR weather minima as set forth in F 91.105 shall apply within the Atlanta TRSA, except t special VFR weather minima set forth in FAR 91.107 sh continue to be applicable within control zones. Appli tion of ATC procedures and separation minima within t TRSA is not to be interpreted as relieving pilots of th responsibilities to see and avoid other traffic operating basic VFR weather conditions, to maintain appropri terrain and obstruction clearance, or to remain in weat conditions equal to or better than the established minin However, this does not preclude the pilot from requesti IFR handling, or while within the control zone, requesti clearance in accordance with special VFR.

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. *You are above 4,000 feet.*
2. *You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.**
3. *You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.*
4. *You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.*



*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Chicago ILLINOIS

PARALLEL ILS APPROACHES—CHICAGO O'HARE INTERNATIONAL AIRPORT

The FAA has implemented a Parallel ILS Approach System at Chicago-O'Hare International Airport. ILS, radar, communications, ATC procedures and flight procedures are employed as integral parts of a total system. Under the new system, O'Hare Approaches to Runways 14L and 14R when wind conditions permit straight-in landings, and when all components of the system are operating normally. Aircraft are radar vectored to the final approach course (localizer) of either runway and the pilot executes an ILS approach. The separation between localizer courses (6,510 feet) imposes certain requirements and techniques peculiar to parallel approaches.

REQUIREMENTS: To conduct a Parallel ILS Approach, aircraft must be equipped with a functioning 75 mc marker (or ADF), localizer, and glide slope receivers, and have the capability to simultaneously monitor both the assigned control frequency and the appropriate localizer voice frequency when advised by ATC.

ATC CONCEPT AND PROCEDURES: Arriving IFR aircraft en route to O'Hare Airport will be cleared by Chicago Center to one of four outer fixes.

(Northbrook, Beacon, Lakewood, or Acorn) established in the O'Hare Terminal Area and changed over to O'Hare Approach Control for further clearance. On initial contact, O'Hare Approach Control will advise the pilot that PARALLEL ILS APPROACHES ARE IN PROGRESS. Upon receipt of this information, **pilots who do not have required equipment** or do not wish to conduct a Parallel ILS approach, must advise O'Hare Approach Control prior to departing the outer fix. This will enable the controller to plan and provide for individual handling.

O'Hare Approach Control will clear aircraft to depart the outer fix on a specified heading and at a specified altitude FOR RADAR VECTOR TO RUNWAY 14 (RIGHT/LEFT) ILS FINAL APPROACH COURSE and will specify the appropriate localizer frequency (109.7 or 110.1). After departing the outer fix, aircraft will be descended to the appropriate ILS Intercept Altitude (2,200 or 3,200 meet m.s.l.) and provided a period of level flight prior to the ILS intercept in which the pilot may dissipate any excess speed accumulated during the descent.

Communications Check: Prior to intercepting the localizer course, the pilot will be requested to monitor the appropriate localizer voice frequency for a communications check with the monitor controller to determine that transmissions are being received in the aircraft.

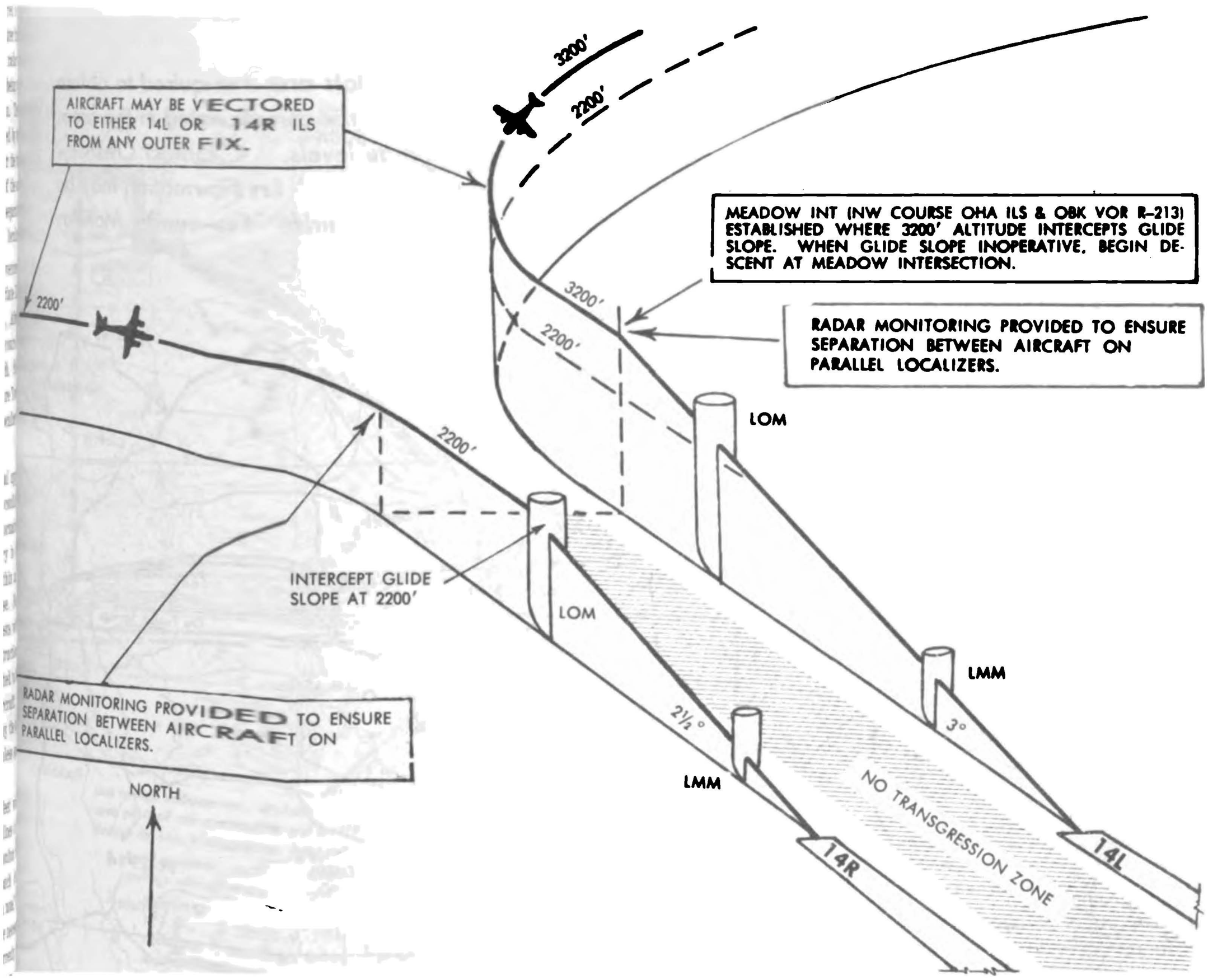
ATC Separation: Radar separation is provided betwe aircraft being vectored to, and while on, the same loc izer course throughout the entire approach. Aircra being vectored to Runway 14R will intercept that loc izer course at 2,200 feet m.s.l. Aircraft being vector to 14L will intercept that localizer course at 3,200 m.s or higher. Since aircraft may be vectored to either li localizer course from any of the four outer fixes, a mi mum of 1,000 feet vertical or 3 miles radar separati will be provided between the aircraft being vectored opposite ILS courses during the turn-on. The approp ate ILS Intercept Altitude is maintained by the aircr until intercepting the glide slope. After the turn-on a until aircraft are 2.3 miles northwest of the outer mar ers, a minimu mof 1,000 feet vertical separation is p vided between aircraft on parallel ILS localizer cours

Localizer Interception: Aircraft will be vectored so as permit the pilot to intercept the appropriate ILS locali course at an angle not greater than 20°. After assigni this final intercept heading, approach control will cle the aircraft for a parallel ILS approach. Subsequent the pilot will be changed over to O'Hare Tower and structed to monitor the appropriate localizer voice f quency (either 109.7 or 110.1 mc).

Radar Monitoring: All turn-ons and final approaches a radar monitored regardless of weather conditions. Mo tor controllers will issue advisory information and co trol instructions as may be necessary to insure th aircraft on final approach remain within an area 1,5 feet either side of the localizer course. Since the p mary responsibility for navigation rests with the pil advisory information and control instructions issued the localizer voice frequency are limited to those nec sary to insure separation between aircraft. Pilots ma not acknowledge transmissions made by the monitor co troller on localizer voice frequency unless specifically quested to do so.

A "no transgression zone" 3,510 feet wide is est lished equidistant between the centerlines of each loc izer course and displayed on the monitor radar sco Should an aircraft on final approach deviate fr course and enter the "no transgression zone," the monit controller will issue instructions as are necessary to al the course of that aircraft. Concurrently, immedi action will be taken by the controller monitoring t adjacent localizer course to cause any aircraft in pot tial conflict with the intruding aircraft to alter its fli path.

Missed Approach: The missed approach procedure dev oped for either runway is designed to provide separati from the adjacent runway. The pilot may be instruct to execute the missed approach procedure at any ti during the approach.


AIRCRAFT MAY BE VECTORED TO EITHER 14L OR 14R ILS FROM ANY OUTER FIX.
3200'
2200'
MEADOW INT (NW COURSE OHA ILS & OBK VOR R-213) ESTABLISHED WHERE 3200' ALTITUDE INTERCEPTS GLIDE SLOPE. WHEN GLIDE SLOPE INOPERATIVE, BEGIN DESCENT AT MEADOW INTERSECTION.
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
LOM
INTERCEPT GLIDE SLOPE AT 2200'
LOM
LMM
2½°
3°
LMM
NO TRANSGRESSION ZONE
14R
14L
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
NORTH

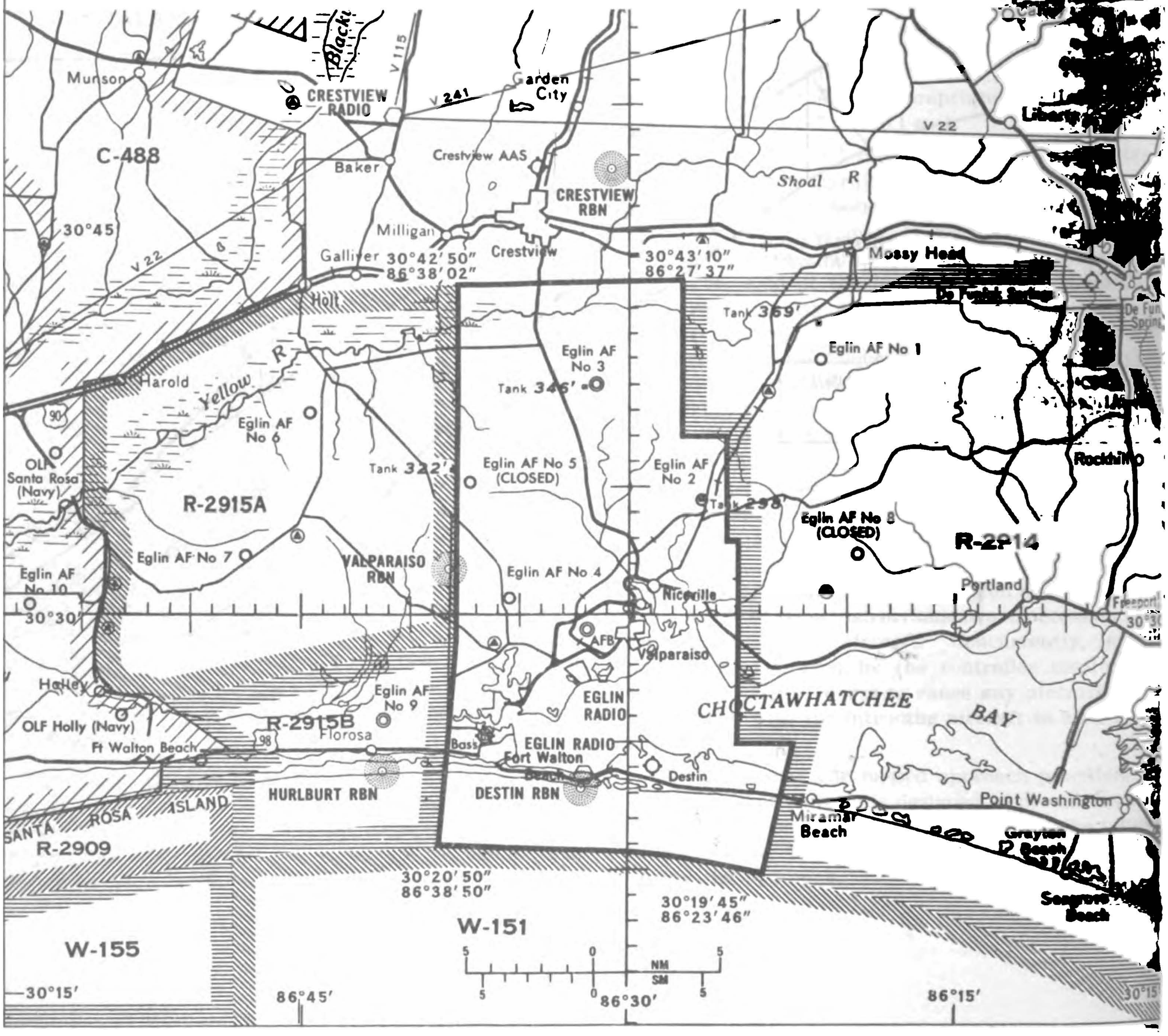
86°45′ 86°15′

VALPARAISO, FLORIDA, TERMINAL AREA

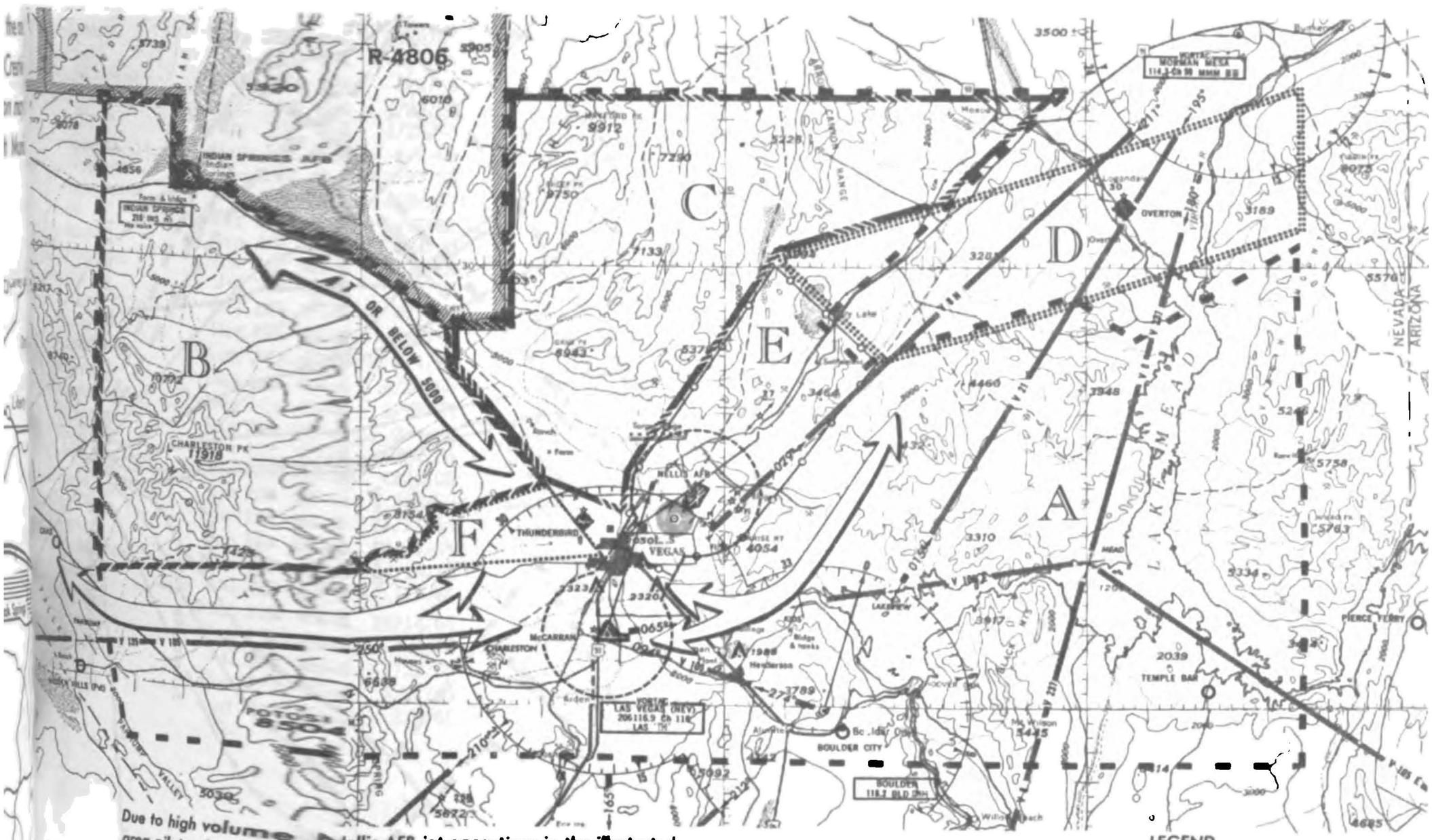
SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

EFFECTIVE DECEMBER 10, 1964

Prior to conducting flight operations in the area shown, pilots are required to obtain information about operating altitudes of high speed special activities conducted in the area. Normally, special activities will use not more than two altitude levels. Contact Crestview Radio, Eglin AFB RAPCON, Tallahassee Radio, or Pensacola Radio. Information may be obtained by radio or telephone. This special rule is in effect sunrise to sunset Monday through Saturday.



LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA



Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;
2. a. Arriving — contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.
4. Departing — contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Thunderbird Airport.

Refer to ANRA Section Of Airguide For Latest Frequency Information

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas
Altitudes are Mean Sea Level

A — — — 23,000
B ▰▰▰▰ 5,500-23,000
C ▬▬▬ Surface to 23,000
D ▪▪▪▪▪▪▪▪▪▪ 8,000 & 9,000 inclv.
E ○——○——○ Surface to 9,000
F ..... 10,000 to 2? ^00

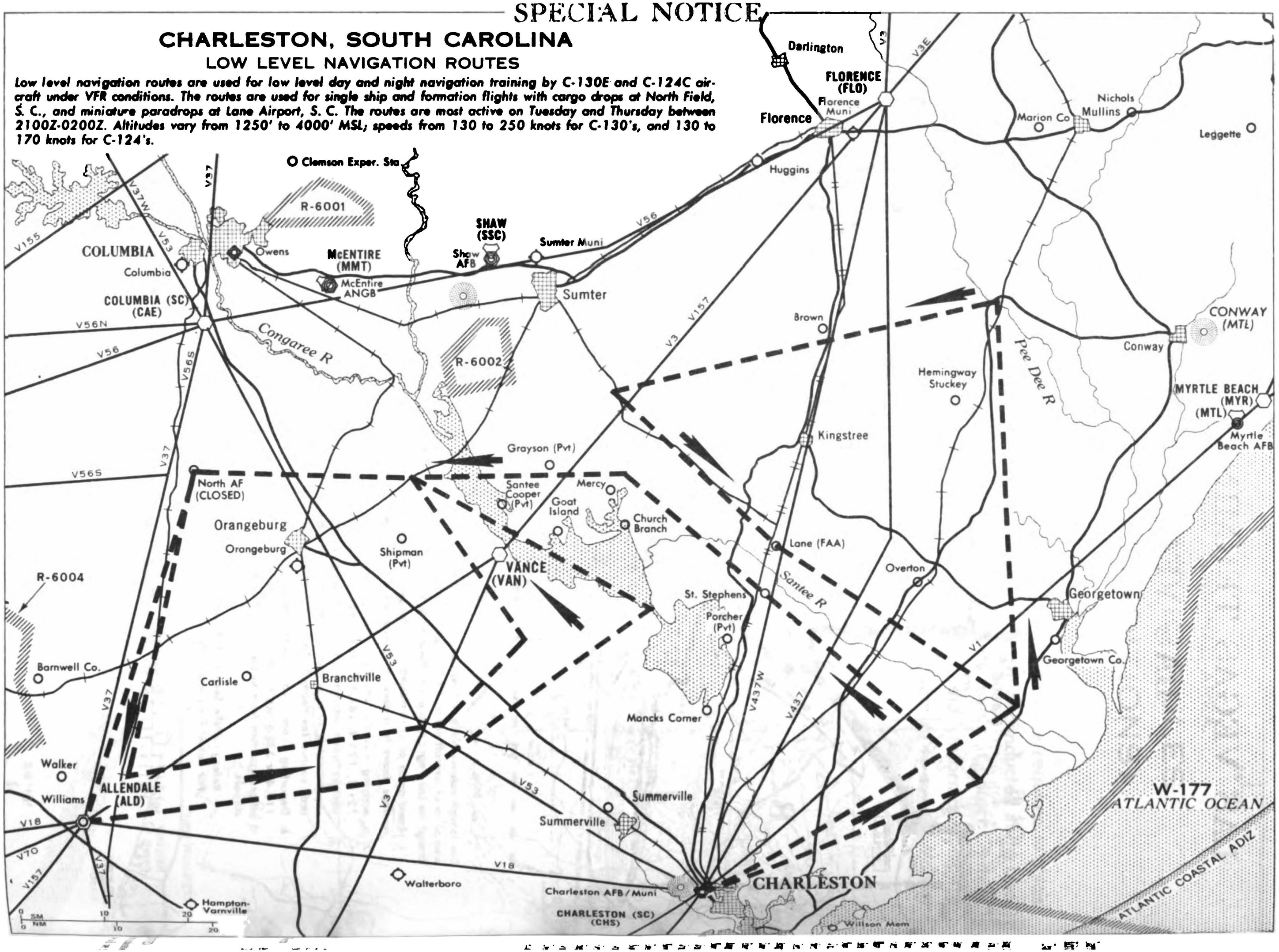
Recommended itinerant VFR routes

Base And Airspace Compiled From 51st Edition Of Mt Whitney And 56th Editic Of Los Angeles Sectional Aeronautical Charts

CHARLESTON, SOUTH CAROLINA

LOW LEVEL NAVIGATION ROUTES

Low level navigation routes are used for low level day and night navigation training by C-130E and C-124C aircraft under VFR conditions. The routes are used for single ship and formation flights with cargo drops at North Field, S. C., and miniature paradrops at Lane Airport, S. C. The routes are most active on Tuesday and Thursday between 2100Z-0200Z. Altitudes vary from 1250' to 4000' MSL; speeds from 130 to 250 knots for C-130's, and 130 to 170 knots for C-124's.



DATES OF LATEST EDITIONS

Aeronautical Charts
Coast and Geodetic Survey

SECTIONAL

	Current Edition Date	Next Edition Date
Aberdeen	Aug 20 64	3/4/65
Albany	Jul 23 64	2/4/65
Albuquerque	Aug 20 64	3/4/65
Aroostook	Apr 30 64	4/29/65
Austin	Nov 12 64	4/29/65
Beaumont	Sep 17 64	4/1/65
→ Bellingham	Dec 10 64	5/27/65
Birmingham	Oct 15 64	4/29/65
Boise	May 28 64	5/27/65
Boston	Sep 17 64	3/4/65
Burlington	Nov 12 64	4/29/65
Butte	Jul 23 64	2/4/65
Casper	Oct 15 64	4/1/65
Charlotte	Oct 15 64	4/29/65
Chattanooga	Aug 20 64	2/4/65
→ Cheyenne	Dec 10 64	6/24/65
→ Chicago	Dec 10 64	5/27/65
Cincinnati	Aug 20 64	2/4/65
Cleveland	Nov 12 64	5/27/65
Corpus Christi	Jul 23 64	2/4/65
Dallas	Jul 23 64	2/4/65
Del Rio	Nov 12 64	11/11/65
→ Denver	Dec 10 64	6/24/65
Des Moines	Nov 12 64	4/29/65
† Detroit	Jul 23 64	1/7/65
Douglas	Oct 15 64	10/14/65
Dubuque	Sep 17 64	4/1/65
Duluth	Jul 23 64	7/22/65
→ Elko	Dec 10 64	5/27/65
El Paso	Aug 20 64	3/4/65
Fargo	Aug 20 64	3/4/65
Glacier Park	Oct 15 64	10/14/65
→ Grand Canyon	Dec 10 64	5/27/65
Grand Junction	Nov 12 64	5/27/65
→ Green Bay	Dec 10 64	5/27/65
Huntington	Aug 20 64	2/4/65
Jacksonville	Nov 12 64	4/29/65
Kansas City	Aug 20 64	2/4/65
Klamath Falls	Sep 17 64	4/1/65
Kootenai	Feb 6 64	2/4/65
La Grande	Jul 23 64	2/4/65
Lake Huron	May 28 64	5/27/65
Lake Superior	Aug 20 64	3/4/65
Lake of Woods	Aug 20 64	8/19/65
Lewiston	Nov 12 64	4/29/65
Lincoln	Oct 15 64	4/1/65
* Little Rock	Jul 23 1964	1/7/65
Los Angeles	Aug 20 64	3/4/65
Miami	Sep 17 64	4/1/65
Miles City	Oct 15 64	4/29/65
→ Milwaukee	Dec 10 64	5/27/65
Minot	Sep 17 64	3/4/65
Mobile	Jul 23 64	2/4/65
Mt. Shasta	Nov 12 64	5/27/65
* Mt. Whitney	Jun 25 64	1/7/65
* Nashville	Jul 23 64	1/7/65
New Orleans	Sep 17 64	4/1/65
New York	Oct 15 64	4/1/65
Norfolk	Sep 17 64	3/4/65
Oklahoma City	Nov 12 64	4/29/65
Orlando	Nov 12 64	4/29/65
* Phoenix	Jul 23 64	1/7/65
Pocatello	Oct 15 64	4/1/65
Portland	Jul 23 64	2/4/65
Prescott	Sep 17 64	4/1/65
→ Rapid City	Dec 10 64	6/24/65
* Reno	Jun 25 64	1/7/65
* Roswell	Jun 25 64	1/7/65
* Sacramento	Jun 25 64	1/7/65
Salina	Sep 17 64	4/1/65
→ Salt Lake City	Dec 10 64	5/27/65
* San Antonio	Jun 25 64	1/7/65
San Diego	Aug 20 64	3/4/65
* San Francisco	Jun 25 64	1/7/65
Savannah	Sep 17 64	3/4/65
→ Seattle	Dec 10 64	6/24/65
* Shreveport	Jun 25 64	1/7/65
Sioux City	Nov 12 64	5/27/65
→ Spokane	Dec 10 64	6/24/65
Trinidad	Sep 17 64	3/4/65
Tulsa	Oct 15 64	4/29/65
Twin Cities	Nov 12 64	4/29/65
Washington, D.C.	Oct 15 64	4/1/65
* Wichita	Jun 25 64	1/7/65
Williston	Jul 23 64	7/22/65
Winston-Salem	Oct 15 64	4/1/65
Yellowstone Park	Sep 17 64	3/4/65
→ Hawaiian Is.	Dec 10 64	12/9/65

LOCAL

	Current Edition Date	Next Edition Date
Atlanta	Oct 15 64	4/29/65
Boston	Sep 17 64	3/4/65
Brownsville	Jul 23 64	2/4/65
→ Chicago	Dec 10 64	5/27/65
Cleveland	Nov 12 64	5/27/65
Dallas-Ft. Worth	Jul 23 64	2/4/65
Dayton	Aug 20 64	2/4/65
→ Denver	Dec 10 64	6/24/65
† Detroit	Jul 23 64	1/7/65
* Honolulu	Jan 9 64	1/7/65
Indianapolis	May 28 64	12/10/64
Jacksonville	Nov 12 64	4/29/65
Kansas City	Aug 20 64	2/4/65
Los Angeles	Aug 20 64	3/4/65
Miami	Sep 17 64	4/1/65
→ Milwaukee	Dec 10 64	5/27/65
Montgomery	Oct 15 64	4/29/65
New York	Oct 15 64	4/1/65
Norfolk	Sep 17 64	3/4/65
Philadelphia	Oct 15 64	4/1/65
* Phoenix	Jul 23 64	1/7/65
Pittsburgh	Nov 12 64	5/27/65
St. Louis	Aug 20 64	2/4/65
San Diego	Aug 20 64	3/4/65
San Francisco	Jun 25 64	1/7/65
→ San Juan	Dec 10 64	12/9/65
→ Seattle	Dec 10 64	6/24/65
Washington	Oct 15 64	4/1/65

† DISCONTINUED
→ New Edition published. Obsoletes Earlier Edition on Dec. 10
* New Edition will be published prior to Effective date Jan. 7

DATES OF LATEST EDITIONS (Continued)

WORLD AERONAUTICAL - UNITED STATES

WAC 62	June 16, 1964	WAC 217	Aug. 28, 1964	WAC 360	Oct. 29, 19
WAC 63	July 7, 1964	WAC 218	Apr. 6, 1964	WAC 361	Oct. 30, 19
WAC 64	Aug. 24, 1964	WAC 219	Apr. 2, 1964	WAC 362	July 2, 19
WAC 76	Nov. 1, 1963	WAC 262	Apr. 27, 1964	WAC 363	Aug. 3, 19
*WAC 77	Oct. 18, 1963	WAC 263	Apr. 21, 1964	WAC 364	Jan. 23, 19
*WAC 78	Oct. 17, 1963	WAC 264	Apr. 15, 1964	WAC 404	July 29, 19
WAC 117	May 6, 1964	WAC 265	Sept. 13, 1963	WAC 405	Feb. 14, 19
WAC 118	June 3, 1964	WAC 266	Sept. 10, 1963	WAC 406	Aug. 12, 19
WAC 119	July 8, 1964	WAC 267	Oct. 30, 1963	WAC 407	Mar. 6, 19
WAC 135	July 9, 1964	WAC 268	Mar. 18, 1964	WAC 408	June 15, 19
➔WAC 136	Aug. 3, 1964	WAC 269	Aug. 26, 1964	WAC 409	June 26, 19
WAC 137	Aug. 7, 1964	WAC 304	Jan. 21, 1964	WAC 410	June 26, 19
WAC 138	Mar. 17, 1964	WAC 305	Sept. 4, 1964	WAC 466	May 27, 19
WAC 139	Mar. 3, 1964	WAC 306	Sept. 18, 1963	WAC 467	June 3, 19
WAC 186	Mar. 17, 1964	WAC 307	Sept. 24, 1963	WAC 468	Dec. 19, 19
WAC 190	July 6, 1964	WAC 308	Nov. 4, 1963	WAC 469	Jan. 6, 19
WAC 191	Aug. 5, 1964	WAC 309	Dec. 3, 1963	WAC 470	Feb. 5, 19
WAC 192	Aug. 19, 1964	WAC 310	Dec. 5, 1963	WAC 471	Apr. 3, 19
WAC 193	Aug. 10, 1964	WAC 357	May 8, 1964	WAC 522	Jan. 8, 19
WAC 215	Jan. 20, 1964	WAC 358	May 20, 1964	WAC 525	June 1, 19
WAC 216	Aug. 31, 1964	WAC 359	Oct. 29, 1963		

JET NAVIGATION

JN 29	United States Northwest	Apr. 3, 1964
JN 30	United States Northeast	Mar. 2, 1964
JN 44	United States Southwest	Feb. 3, 19
JN 45	United States Southeast	Jan. 2, 19

PLANNING

	AP 9	Nov. 6, 1963
*	AERONAUTICAL CATALOG	Aug. 1964

AIRCRAFT POSITION

3071	North Atlantic	Oct 12, 19
3073	Caribbean Sea	Aug. 10, 19
3087	Central Pacific	Sept. 12, 19
3094	North Pacific	Aug. 15, 19
3096	United States-Honolulu	June 10, 19
3097	North America-Europe	June 4, 19

† DISCONTINUED

➔ New Edition published. Obsoletes Chart of Earlier date.

* New Edition will be published in about one month.

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ALABAMA			
122	Dothan	11-28-64			
577	Fort Rucker (Cairns AAF)		11-27-64 (2)	11-27-64R6	
703	Huntsville (Redstone AAF)		11-28-64 (1)		
			11-28-64 (2)*		
		ALASKA			
1500	Anchorage (Intnl)	11-20-64 (1)			11-20-64
1522	Anchorage (Merrill Fld.)				11-20-64
1234	Fairbanks (Intnl.)		11-28-64 (1)	11-28-64R19	12-5-64
				12-5-64R1 (BC)	
		ARIZONA			
546	Prescott	11-28-64 (1)	11-28-64 (1)		
430	Tucson (Intnl)	12-5-64 (1)	12-5-64 (1)		
		CALIFORNIA			
36	Bakersfield (Meadows Fld)			12-5-64R12L (BC)*	
5120	Hawthorne	11-28-64 (1)	11-28-64 (1)		
		11-28-64DME (1)*			
344	Red Bluff (Bidwell)	11-20-64 (1)			11-20-64
		COLORADO			
87	Colorado Springs (Peterson Field)	11-27-64R30	11-27-64 (1)	11-27-64R35	
				11-27-64R17(BC)	
114	Denver (Stapleton Intnl)		11-27-64 (1)	11-27-64R26L	
			11-27-64 (2)	11-27-64R35	
				11-27-64R8R (BC)	
				11-27-64R17 (BC)	
634	Grand Junction (Walker Fld)		11-27-64 (1)	11-27-64R11	
		FLORIDA			
110	Daytona Beach	11-20-64 (1)	11-27-64 (1)	11-27-64R6	
744	Fort Lauderdale (Hollywood Intnl)	11-27-64 (1)	11-27-64 (1)		
		11-27-64R9			
318	Pensacola	11-27-64R13			
			12-5-64 (2)	12-5-64R34(BC)	
		ILLINOIS			
5058	Bloomington	11-28-64R21			
269	Moline (Quad City)		11-28-64 (1)	11-28-64R9	
				11-28-64R27 (BC)	
		INDIANA			
608	Terre Haute (Hulman Fld)		12-5-64 (2)	12-5-64R5	
		IOWA			
250	Cedar Rapids	12-5-64 (1)	12-5-64 (1)	12-5-64R8	
		12-5-64 (2)			
972	Clinton	12-5-64DME (1)			
949	Davenport (Mun.)	11-28-64 (1)			
			11-28-64 (1)		

The airport name is shown only when it differs from the city or town name, e.g., Selma (Selfield): Numbers in parentheses following the dates indicate the procedure number.

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		KENTUCKY			
697	Lexington (Blue Grass Fld)	11-27-64 (1) 11-27-64DME (1)	11-27-64 (1)	11-27-64R4 11-27-64R22 (BC)	
		MARYLAND			
5089	Frederick	11-28-64R23			
		MICHIGAN			
718	Alpena (Phelps-Collins)		11-28-64 (1)		
278	Muskegon (County)	11-28-64 (1)	11-28-64 (1)	11-28-64R32	
5052	Pontiac	11-27-64 (1) 11-27-64 (2)			
		MINNESOTA			
5174	Bemidji	11-28-64 (1)			
5182	Brainerd (Crow Wing Co.)	11-28-64 (1)			
125	Duluth (Intnl)		11-27-64 (1)	11-27-64R9	
5209	Worthington	11-28-64R17			
		NEBRASKA			
5217	Hastings (Mun.)	11-20-64R14 11-20-64 (1)	11-20-64(1)		
		NEVADA			
662	Las Vegas (McCarran)	11-27-64 (1) 11-27-64Rad-065 11-27-64Rad-165 11-27-64DME (1) 11-27-64DME (2)	11-27-64 (1)		
346	Reno	12-5-64 (1)	12-5-64 (1)		
		NEW HAMPSHIRE			
859	Lebanon (Regional)	12-5-64 (1)			
5036	Nashua (Boire Field)	12-5-64 (1)	12-5-64 (1)		
		NEW JERSEY			
5255	Pitman	11-28-64 (1)*			
		NEW MEXICO			
355	Roswell	11-27-64 (2)			
		NEW YORK			
351	Rochester (Rochester-Monroe Co.)	11-27-64R1 11-27-64R10	11-27-64 (1)	11-27-64R28	
		NORTH CAROLINA			
516	Raleigh (Durham)		11-28-64 (1)	11-28-64R5	
		NORTH DAKOTA			
635	Minot (Intnl)	11-27-64 (1) 11-27-64 (2)			11-27-64

The airport name is shown only when it differs from the city or town name, e.g., Selma (Selfield). Numbers in parentheses following the dates indicate the procedure number.

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		OHIO			
84	Cleveland (Hopkins)			11-28-64R5R*	
		OKLAHOMA			
136	Enid (Woodring Field)	11-27-64R35			
		OREGON			
735	Newport	11-28-64R34			
929	North Bend	12-5-64 (1)			
		PENNSYLVANIA			
5254	Clarion (Rhea)	11-28-64 (1)*			
570	Pittsburgh (Greater)	11-28-64R32		11-28-64R10L	
		RHODE ISLAND			
5256	Smithfield (North Central State)	11-28-64 (1)*			
		SOUTH DAKOTA			
396	Sioux Falls (Joe Foss)		12-5-64 (1)	12-5-64R3	
		VERMONT			
70	Burlington		11-27-64 (1)	11-27-64R15	
		WASHINGTON			
384	Seattle (Boeing Field)		11-27-64 (1) 11-27-64 (2)	11-27-64R13	11-27-64
		WISCONSIN			
938	Janesville (Rock Co.)	11-28-64 (1)			
		VIRGIN ISLANDS			
5005	Charlotte Amalie, St. Thomas (Harry S. Truman)	11-20-64 (1)			
		RADAR			
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The airport name is shown only when it differs from the city or town name, e.g., Selma (Selfield). Numbers in parentheses following the dates indicate the procedure number.

*NEW CHART

753-036 O - 64 - III-8

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Airman's Information Manual

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Federal Aviation Agency

Airman's
INFORMATION
MANUAL

SECTION III

FLIGHT DATA
AND
SPECIAL OPERATIONS

EFFECTIVE 0501Z 7 JANUARY 1965

To 0501Z 4 FEBRUARY 1965

AIRMAN'S INFORMATION MANUAL

INTRODUCTION

This Airman's Information Manual (AIM) has been developed by the Federal Aviation Agency as a pilot's operational manual replacing the Airman's Guide, Directory of Airports and Seaplane Bases, and the Flight Information Manual within the conterminous United States. The existing Alaska Airman's Guide and Chart Supplement and the Pacific Airman's Guide and Chart Supplement will continue to be published every 28 days.

The new AIM presents, in a single document, all information necessary for the planning and conduct of a flight in the National Airspace System. The content and format reflect user identified requirements and provide a "one package" approach.

The manual is divided into six sections, each composed of a specific category or family of information, fashioned into a format consistent with the operational needs of aviation. In contradistinction to previous flight information publications issued by FAA, the design concept of the AIM has provided for consolidation of similar information, segregation of air traffic control procedural information and its sequencing according to operational use, and the elimination of administrative and non-essential data.

The AIM is designed to be carried in the cockpit and may be used collectively or independently by sections. The manual is published as loose-leaf pages, and is three-hole punched to fit a standard three-ring binder.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot prefixing the heading, paragraph, or line.

Each section of the AIM will be published at varying intervals during the year, depending on the stability or frequency or change of the information.

The various sections and the revision cycle of each are:

Section I	Basic Flight Manual	Semi-annually
Section II	ATC Operations and Procedures	Quarterly
Section III	Flight Data and Special Operations	Every 28 days
Section III-A	Notices to Airmen	Every 14 days
Section IV	Airport Directory	Semi-annually
Section IV-A	Airport/Facility Directory	Every 28 days

The above schedule provides a completely new manual every 6 months.

The revision cycle of Sections III and IV-A is every 28 days, the same as the IFR Enroute charts. Since the charts contains basically enroute information, the AIM serves as a supplementary publication, providing information for planning and terminal operations. Therefore, radio navigation aids are on the charts and unlike the Airman's Guide, are not tabulated in the AIM. Every effort has been made to minimize and eliminate duplication of information within publicatons and between publications and charts.

A Master Alphabetical Index of the AIM has been included in Section III because this section is issued every 28 days and thereby permits keeping the index current.

A brief description of the contents of each section in the AIM follows.

Section I—Basic Flight Manual

This section contains information of an instructional, educational, and training nature, assembled and presented in a systematic format, categorized by subject matter. The novice pilot, as well as the more experienced pilot will find here the basic fundamentals of knowledge for operating in the National Airspace System, information on adverse factors affecting safety of flight and health, and a list af available publications of general operational interest.

Section II—ATC Operations and Procedures

Section II is designed to serve as an official means of disseminating pertinent ATC information of interest to all pilots. The information governing flight operations, air traffic services, and procedures is presented in layman's language and avoids ambiguities which often result from individual interpretations of rules. Data is seqeunced in accordance with typical flight operations: Preflight, departure, enroute, arrival and landing procedures. In addition, supporting general procedures and information such as ADIZ, and SCATER procedures is included. Emergency procedures are combined and published at the end of the section.

Section III—Flight Data and Special Operations

Operational data most subject to change and which is not appropriate for inclusion within other sections of the AIM is carried in Section III. Because it contains critical flight data most subject to change, this section should be kept close at hand in the event of a divergence in enroute flight. Some of the most significant material contained in Section III is described below.

A Master Alphabetical Index giving a complete and comprehensive cross-referenced list of all aeronautical information in the AIM.

A glossary or explanation of aeronautical term or phrases used in the AIM, and a list of commonly used abbreviations.

Special Notices of pertinent current information of operational value for both preflight planning and enroute operations. These Special Notices are divided into three categories: General Notices—those of a general nature with universal application; Area Notices—those pertinent to a specific geographical area; and Regulatory Notices—these are condensations of changes to or new rules, parts, Advisory Circulars, Special Procedures and other regulatory matters of operational interest.

A Visual Navigation Chart Bulletin, as a means of updating the Sectional Charts, providing a cumulative tabulation of the major changes in aeronautical information occurring since the last chart publication date.

Detailed description tabulations and charts of Special Operations such as Oil Burner Routes and military refueling tracks.

Section III—A—Notices to Airmen

This section serves as a supplement, issued every fourteen days, to the AIM and provides operationally required data pertinent to the continuous NOTAMs carried in the daily teletypewriter NOTAM Summary (NOSUM), revisions to Oil Burner routes, and those airman advisories deemed essential to the safe conduct of flight.

Sections IV and IV–A—Airport Directory

Within Sections IV and IV–A there are provided an Airport Directory, a tabulation of ARTCC communications, frequencies, and a tabulation of Flight Service Stations.

Section IV contains the Airport Directory which is a listing of all known airports, heliports, and seaplane bases available for transient civil use within the conterminous United States, and indicates those airport services and facilities available at each. The seaplane tabulation and the heliport tabulation follow the airport tabulation. Military airports and privately owned and operated airports closed to civil aviation are not listed.

Section IV–A contains an Airport/Facility Directory providing an integrated tabulation of major airports, heliports and seaplane bases which have terminal navaids and communications facilities available at the airport. This tabulation combines all facilities and services available at each airport (heliport or seaplane base) or terminal area into a single listing.

In both Sections IV and IV–A, airports are listed alphabetically by geographical location (city or town) within each state. Airports tabulated in IV–A are cross-referenced in Section IV.

In Section IV–A, the Airport/Facility Directory is followed by the tabulation of all ARTC Center VHF communications frequencies. This, in turn, is followed by the tabulation of FSS's, which shows their telephone numbers, the number of the associated Weather Bureau Office, and other pertinent data.

Errors, Omissions, or Suggested Changes

Errors, omissions, or suggested changes should be forwarded to the Federal Aviation Agency, Air Traffic Service, Attention AT–600, Washington, D.C. 20553. Airport managers, operators and owners are urged to review data for their airport and report any errors or omissions to FAA at the address given above.

Procurement

The Airman's Information Manual is available on annual subscription for $15.00, plus $4.00 additional for foreign mailing. Requests should be directed to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

INTRODUCTION

Section III—FLIGHT DATA AND SPECIAL OPERATIONS

Section III is published every 28 days and contains operational flight data most subject to continuous change that is not appropriate for inclusion within other sections of the Manual. Because it contains such critical flight data, this section should be kept close at hand in the event of a divergence in en route flight.

The information in Section III is presented in various tabulations or grouping arrangements appropriate to the specific items. Typical examples are: Preferred Routes, VOR Receiver Check Points, Parachute Jumping Areas, and Substitute Route Structures.

The Master Alphabetical Index of the entire Manual is provided in this Section. This complete and comprehensive index lists all items of information, cross referenced under all headings to which reference might reasonably be made, giving section and page number. Within the index, any reference involving emergency actions or procedures is printed in bold-face type.

As a means of updating the Sectional Charts produced by the Coast and Geodetic Survey, Department of Commerce, a Visual Navigation Chart Bulletin is included in Section III. This bulletin provides a cumulative tabulation of the major changes in aeronautical information that have occurred since the last publication date (normally every 6 months) of each sectional chart. Only those changes to controlled airspace and special use airspace, airports, and radio navigation facilities that present a hazardous condition or impose a restriction on the pilot are listed, thereby continually providing the VFR pilot with the essential data for keeping his sectional charts current until they are reissued.

At the end of Section III are grouped detailed tabulations and charts of special operations and areas such as Oil Burner Routes, and military low altitude refueling tracks. This arrangement provides a consolidated presentation of areas and special operations that are not designated through rule-making procedures.

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GLOSSARY OF AERONAUTICAL TERMS

AIR DEFENSE IDENTIFICATION ZONE (ADIZ)—The area of airpace over land or water within which the ready identiication, the location, and the control of aircraft are reuired in the interest of national security. For operatng details see ADIZ procedures.

AIRPORT ADVISORY AREA—The area within five statute iles of an uncontrolled airport on which is located a 'light Service Station so depicted on the appropriate ectional Aeronautical Chart.

AIRPORT ADVISORY SERVICE—A service provided by a Flight ervice Station to enhance the safety of terminal opertions of airports where a station is operating but where ere is no control tower.

AIRPORT SURFACE DETECTION EQUIPMENT (ASDE)—Radar ulpment specifically designed to detect all principal atures on the surface of an airport, including vehicular affic, and to present the entire picture on a radar indiitor console in the control tower. ASDE has a maxium range of four miles, though its 16 inch diameter ope usually displays an area of only one mile radius out the control tower.

AIRPORT SURVEILLANCE RADAR (ASR)—Radar providing posion of aircraft by azimuth and range data without eleation data. It is designed for a range of 50 miles.

AIRPORT TRAFFIC AREA—The airspace within a circular nit defined by a five statute mile horizontal radius om the geographical center of an airport at which an erative airport traffic control tower is located and exnding upwards from the surface to, but not including, 000 feet above the surface.

AR ROUTE SURVEILLANCE RADAR (ARSR)—Long range radar hich increases the capability of ATC for handling heavy ı route traffic. An ARSR site is usually located at some stance from the ARTCC it serves.

AR ROUTE TRAFFIC CONTROL CENTER (ARTCC)—A facility tablished to provide traffic control service to Instruent Flight Rules (IFR) flights operating within conolled airspace and principally during the en route ıase of flight.

ALTITUDE RESERVATION (ALTRV)—Airspace utilization under escribed conditions, normally employed for the mass ovement of aircraft or other special user requirements hich cannot otherwise be accomplished. ALTRV's are pproved by the appropriate FAA facility.

APPROACH CONTROL SERVICE—Air traffic control service, ovided by a terminal area traffic control facility, for riving and or departing IFR flights and, on occasion, FR flights.

CARDINAL ALTITUDES OR FLIGHT LEVELS—"Odd" or "even" thousand-foot altitudes or flight levels. Examples: 5000, 6000, 7000, FL 250, FL 260, FL 270.

CEILING—The height above the ground or water of the lowest layer of clouds or obscuration phenomena that is reported as "broken," "overcast," or "obscuration" and not classified as "thin" or "partial."

CENTRAL ALTITUDE RESERVATION FACILITY (CARF)—An Air Traffic Service facility established to conduct the volume of coordination, planning and approval of special user requirements under the altitude reservation concept.

CONSOLAN—A low frequency, long-distance navaid used principally for transoceanic navigation.

CONTERMINOUS U.S.—Forty-eight states and the District of Columbia.

CONTINENTAL CONTROL AREA—The area, which includes that airspace within the contermious United States at and above 14,500 feet MSL, excluding airspace less than 1,500 feet above terrain, and prohibited and restricted areas (except certain specified restricted areas).

CONTINENTAL U.S.—Forty-nine states. The original 48 states and Alaska.

CONTROL AREA—Controlled airspace extending upwards from a specified height above the surface of the earth. Unless otherwise provided in appropriate cases, control areas extend upward from 700 feet above the surface until designated from 1,200 feet above the surface or from at least 500 feet below the MEA, whichever is higher, to the base of the continental control area.

CONTROL ZONE—Controlled airspace extending upwards from the surface of the earth. Control zones may include one or more airports and are normally circular areas 5 statute miles in radius with extension where necessary to include instrument approach and departure paths.

CRUISE—The term "cruise" used instead of "maintain" in an ATC clearance indicates that descent from cruising altitude may be commenced at pilot's discretion without further clearance from ATC. "Cruise" is normally used only on relatively short flights in uncongested areas, and is authorization for the flight to proceed to, and make an approach at, destination.

DISCRETE FREQUENCY—A frequency assigned a particular function.

EXPECTED APPROACH CLEARANCE TIME (EAC)—The time at which it is expected that an arriving aircraft will be cleared to commence approach for a landing.

FINAL APPROACH—IFR—The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, commencing at the point of interception of said course and extending to the airport or the point where circling for landing or missed approach is executed.

FINAL APPROACH—VFR—A flight path of a landing aircraft in the direction of landing along the extended runway center line from the base leg to the runway.

FIX—A geographical position determined visually, by reference to one or more radio navigational aids, by celestial plotting, or by another navigational device.

FLIGHT ADVISORY SERVICE—Advice and information provided by a facility to assist pilots in the safe conduct of flight.

FLIP—Flight Information Publication.

FLIGHT LEVEL (FL)—A level of constant atmospheric pressure related to a reference datum 29.92" HG. For example: Flight Level 250 is equivalent to an altimeter indication of 25,000 feet, and Flight Level 265 to 26,500 feet.

FLIGHT SERVICE STATION (FSS)—A facility operated by the FAA to provide flight assistance service.

IFR CONDITIONS—Weather conditions below the minimum prescribed for flights under VFR.

INITIAL APPROACH—Initial approaches to a facility are normally made over specified routes to the primary navigation facility. When the approach fix is not the primary navigation facility, the transition routes are specified and shown on the particular AL chart. The minimum en route altitude for the route along which the pilot has been flying is normally used as the initial approach altitude. The high level initial approach altitude is usually termed "Initial Penetration Altitude" and is considered as the altitude at which the aircraft begins a penetration. This altitude is established for each particular procedure and is indicated on the associated AL chart.

INTERROGATOR—The ground-based surveillance radar beacon transmitter-receiver which scans in synchronism with a primary radar, transmitting discrete radio signals which repetitiously request all transponders, on the mode being used, to reply. The replies received are then mixed with the primary radar video to be displayed on the same plan position indicators.

JET ROUTES—A high altitude route system, at and above 18,000 feet MSL, predicated on a network of designated high altitude VHF/UHF facilities. (For operating procedures applicable to this system see ENROUTE).

JOINT USE RESTRICTED AREA—An area wherein an aircraft may operate if prior permission has been granted by either the restricted area "using agency" or the "controlling agency." (1) The using agency organization, or military command whose activity within a restricte area necessitated the area being so designated; excep that, in the case of those Restricted Area/Military Clim Corridors which do not have a designated controllin agency, the using agency is a military air traffic contr facility which may be contacted for transit through th climb corridor. The using agency notifies the controllin agency whenever permission may be granted by th controlling agency for transit of, or flight within a re stricted area. (2) The controlling agency is a designate FAA facility which may authorize transit of a restricte area.

MAINTAIN—The altitude/flight level instructions in a ATC clearance normally require that a pilot "maintai the altitude/flight level at which the flight will opera when in controlled airspace. Altitude/flight lev changes while en route should be requested prior to t time the change is desired.

MAXIMUM AUTHORIZED ALTITUDE (MAA)—The highest al tude on a Federal airway, jet route, or other direct rou for which a MEA is designated in F.A.R. Part 95 which adequate reception of navigation aid signals assured.

MINIMUM CROSSING ALTITUDES (MCA)—The lowest altitud at certain radio fixes at which an aircraft must cro when proceeding in the direction of a higher minimu en route IFR altitude.

MINIMUM EN ROUTE IFR ALTITUDE (MEA)—The altitude effect between radio fixes which assures acceptable na gational signal coverage and meets obstruction clearan requirements between those fixes.

MINIMUM OBSTRUCTION CLEARANCE ALTITUDE (MOCA)—T specified altitude in effect between radio fixes on VO airways, off-airway routes on route segments, whi meets obstruction clearance requirements for the enti route segment and which assures acceptable navigation signal coverage only within 22 nautical miles of a VO

MINIMUM RECEPTION ALTITUDE (MRA)—The lowest altitu required to receive adequate signals to determine speci VOR/VORTAC/TACAN fixes.

MODE—The number or letter referring to the speci pulse spacing of the signal transmitted by an interro tor.

RADAR BEACON (SECONDARY RADAR)—A radar system which the object to be detected is fitted with cooperati equipment in the form of a radio receiver/transmitt (transponder). Radio pulses transmitted from t searching transmitter/receiver (interrogator) site a received in the cooperative equipment and used to tri ger a distinctive transmission from the transponde This latter transmission, rather than a reflected signa is then received back at the transmitter/receiver site.

RADAR ADVISORY SERVICE—The provision of advice or i formation based on radar observation.

RADIAL—A radial is a magnetic bearing extending from a VOR, VORTAC, or TACAN.

PRIMARY RADAR—A radar system in which a minute portion of a radio pulse transmitted from a site is reflected off an object and then received back at that site.

PROHIBITED AREA—Designated airspace within which the flight of aircraft is prohibited.

TARGET—The indication displayed on a radar scope resulting from a primary radar return or a radar beacon reply.

TRANSITION AREA—An area extending upward from 1,200 feet or higher above the surface when designated to complement control zones; from 700 feet above the surface when designated in conjunction with an airport with no control zone but for which an instrument approach procedure has been prescribed; or from 1,200 feet or higher above the surface when designated in conjunction with airway route structures or segments. Unless otherwise limited, transition areas terminate at the base of the overlying control area or Continental Control Area.

TRANSPONDER—The airborne radar beacon receiver-transmitter which automatically receives radio signals from all interrogators on the ground, and selectively replies with a specific reply pulse or pulse group only to those "interrogations" being received on the mode to which it is set to respond.

VECTOR—A heading issued to the pilot for the purpose of providing navigational guidance by means of radar.

VISIBILITY, PREVAILING—The horizontal distance at which targets of known distance are visible over at least half of the horizon. It is normally determined by an observer at or close to the ground viewing buildings or other similar objects during the day and ordinary city lights at night. Under low visibility conditions the observations are usually made at the control tower. Visibility is REPORTED IN MILES AND FRACTIONS OF MILES in the Aviation Weather Report. If a single value does not adequately describe the visibility, additional information is reported in the "Remarks" section of the report.

VISIBILITY, RUNWAY—The horizontal distance at which a stationary observer near the end of the runway can see an ordinary light (about 25 candlepower) at night or a dark object against the horizon sky in the daytime. In practice the human observer is used very little for this observation. Instead runway visibility is normally determined by a transmissometer (a photoelectric device calibrated in terms of a human observer). It is REPORTED IN MILES AND FRACTIONS OF MILES in the "Remarks" section of the Aviation Weather Report. A meter in the control tower gives the FAA traffic controller a continuous indication of the runway visibility at transmissometer locations. Runway visibility, where available, is used in place of prevailing visibility for the determination of minimums on a transmissometer runway. This program is gradually being replaced by Runway Visual Range at transmissometer locations.

VISIBILITY, RUNWAY VISUAL RANGE (RVR)—An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end; it is based on the sighting of either high intensity runway lights or on the visual contrast of other targets—whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal, AND NOT SLANT, visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is REPORTED IN HUNDREDS OF FEET. At the present time, RVR observations are automatically furnished to FAA tower controllers at approximately 25 locations from readout equipment connected to the remote transmissometer installation. RVR provides an additional operating minimum at fields equipped with specified navigational aids. For example, at the present time the RVR minimum at Newark is 2000 ft. (in combination with a minimum descent altitude of 218' MSL) for both takeoffs and landings regardless of the reported ceiling and visibility.

VOT—VHF facility transmitting a test signal to determine the operational status of VOR receivers.

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

acft..... aircraft
adjt..... adjacent
admin.... administration
AGL..... above ground level
Airgi..... Airguide
alt..... altitude
amdt..... amendment
ANRA.... air navigation radio aids
ant..... antenna
apch..... approach
apchg..... approaching
aprxly.... approximately
arpt..... airport
arr..... arrival/arrive
ARTCC... Air Route Traffic Control Center
ASDE..... airport surface detection equipment
ATC..... air traffic control
auto..... automatic
aux..... auxiliary
avbl..... available
awy..... airway

BC..... back course
bcn..... beacon
bcst..... broadcast
bldg..... building
bndry..... boundary
brg..... bearing
btn..... between

clsd..... closed
clrnc..... clearance
cntr..... center
Co..... county
comm.... communication
comsnd... commissioned
comsng... commissioning
config..... configuration
constr.... construction
constrd... constructed
cont..... continuous/continuously
crs..... course
CS/T..... combined station/tower
ctc..... contact
ctl..... control
ctld..... controlled

dalgt..... daylight
demsnd... decommissioned
demol.... demolition
DF..... direction finder
discntd... discontinued
DME..... UHF standard (TACAN compatible) distance measuring equipment
dptg..... departing
dptr..... departure

efctv..... effective
elev..... elevation
emgcy.... emergency
eng..... engine
eqpmt.... equipment
excp..... except
extsn..... extension
extsv..... extensive

facil..... facility
flashg.... flashing
fld..... field
flt..... flight
flwg..... following
FM..... fan marker
fone..... telephone
freq..... frequency
FSS..... Flight Service Station

GCA..... groundcontrolled approach
gnd..... ground
GWT..... gross weight

hi-..... high-
hr..... hour
hvy..... heavy
hwy..... highway

ident..... identification
IFR..... Instrument Flihgt Rules
IFSS..... International Flight Service Station
ILS..... instrument landing system
imdtly.... immediately
inbnd..... inbound
indef..... indefinitely
info..... information
inop..... inoperative
inst..... instrument
int..... intersection
intl..... international
intsv..... intensive

J-bar..... jet runway barrier

kc..... kilocycles

lat..... latitude
lcl..... local
lclzr..... localizer
lctd..... located
lctn..... location
LFR..... Low/Medium frequency radio range
lgt..... light
lgtd..... lighted
lgtg..... lighting
LMM..... compass locator at middle marker ILS
lnd..... land
lndg..... landing
LOM..... compass locator at outer marker ILS
long..... longitude

M..... magnetic (after a bearing)
MAA..... maximum authorized altitude
mag..... magnetic
maj..... major
max..... maximum
mc..... megacycles
MCA..... minimum crossing altitude
MEA..... minimum enroute IFR altitude
meml..... memorial
mi..... mile
min..... minimum or minute
MM..... middle marker ILS
MOCA.... minimum obstruction clearance altitude
mod..... modernization/modification
MRA..... minimum reception altitude
mrkd..... marked
mrkg..... marking
MSL..... mean sea level
mun..... municipal

natl..... national
navaid.... navigational aid
ngt..... night

nmi..... nautical mile/s
No..... number

obstn..... obstruction
oct..... octane
OM..... outer marker ILS
operg..... operating
opern..... operation
outbnd.... outbound

patn..... pattern
permly.... permanently
p-line..... pole line
pwr..... power

quad..... quadrant

rad..... radial
RAE..... Royal Aircraft Establishment visual glide slope indicator
RAPCON.. radar approach control
RATCC... radar air traffic control center
rbn..... radio beacon
rcv..... receive
rcvg..... receiving
rcvr..... receiver
rdo..... radio
reconstr... reconstruction
REIL..... runway end identification lights
relctd..... relocated
rgt..... right
rng..... range
rnwy..... runway
ruf..... rough
RVR..... runway visual range
RVV..... runway visibility values

sked..... schedule
smi..... statute mile/s
SR..... sunrise
SS..... sunset
stn..... station
sys..... system

T..... true (after a bearing)
TACAN... UHF navigational facility—omnidirectional course and distance information
tet..... tetrahedron
tfc..... traffic
tkof..... take-off
tmprly.... temporarily
tmpry.... temporary
trans..... transcribed
trml..... terminal
trng..... training
tsmt..... transmit
tsmtg..... transmitting
tsmtr..... transmitter
TV..... television
twr..... tower
txwy..... taxiway

UFN..... until further notice
unavbl.... unavailable
uncltd.... uncontrolled
unlgtd.... unlighted
unmrkd... unmarked

VASI..... visual approac slope indicat
vcnty..... vicinity
VFR..... visual flight ru
VOR..... VHF navigation facility—om directional, course only
VOR-DME.. collocated VOI navigational facility and UHF standa navigational facility and UHF standa distance me uring equip ment
VORTAC.. collocated VOI and TACAN navigational facilities
VOT..... a VOR Receive Testing Facility
vsby..... visibility

wea..... weather
WIP..... work in progr
wt..... weight

THE NOTAM CODE

INTRODUCTION

The NOTAM Code provides for coding NOTAM information to reduce telecommunications transmission time and reduce translation difficulties in the International Service.

A NOTAM Code group contains 5 letters. The first letter is always the letter Q to indicate a code abbreviation for use in the composition of NOTAMs. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

NOTAM code significations shall be amplified or completed where necessary by adding appropriate words, contractions, frequencies, location identifiers, place names, or figures. Approved abbreviations shall be used in preference to plain language whenever possible. The information necessary to complete a NOTAM code group, as indicated by a blank space, shall be given except when (1) the blank spaces are enclosed within parentheses or brackets to indicate their completion is optional; e.g., LHX QIEIK 15 MIN. Meaning: the LaJunta Colorado airport beacon is available on request at 15 minutes' notice; or (2) an alternative meaning shown in parentheses is selected and the blank space in this alternative meaning is complete; e.g., QAPOK 116.9. Meaning: the radio range on 116.9 Mc. resumed normal operation.

Expressions or words in parentheses which do not include blank spaces have the following significances:

(1) When following a blank space, signifies the explanation of information to be used in filling the preceding blank.

(2) When following a word or expression, signifies an alternative to the word or expression.

CODE GROUP FORMATION

5-letter NOTAM code groups are formed in the following manner:

(1) First Letter.—The letter Q.

(2) Second and Third Letters.—The appropriate combination of 2 letters, selected from the "2nd and 3rd letters" section of the code, identify the facility, service or danger to aircraft in flight being reported. The *second* letter has been restricted to A, E, I, O, or U. These letters also serve to classify the aid, facility, or service described: i.e., the letters A and E signify radio aids. The letter I signifies lighting facilities. The letters O and U signify airports, search and rescue, and dangers to aircraft in flight.

(3) Fourth and Fifth Letters.—The appropriate cominbation of 2 letters, selected from the "4th and 5th Letters" section, denote the operating status of the facility, service, or danger to aircraft being reported. The *fourth* letter has been restricted to A, E, I, O, or U.

DECODE

SECOND AND THIRD LETTERS

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	RADIO AIDS		
AA	. . . [*specify TWR, APP, ACC or FIC*] air traffic services receiver . . . kc/s. (*or* . . . Mc/s.).	**AY**	200 Mc/s. Distance Measuring Equipment.
AB	Inner marker, Instrument Landing System.	**AZ**	Station location marker VHF.
AC	. . . [*specify TWR, APP, ACC or FIC*] air traffic services transmitter . . . kc/s. (*or* . . . Mc/s.).	**EA**	En-route Surveillance Radar.
		EB	Broadcasting station (public).
		EC	CONSOL or CONSOLAN station.
		ED	DECCA or DECTRA.
AD	Middle marker, Instrument Landing System.	**EE**	Ground Controlled Approach System (GCA).
AE	Outer marker, Instrument Landing System.	**EF**	Terminal Area Surveillance Radar.
		EG	Gee.
AF	Fan-type marker.	**EH**	Elevation element of the Precision Approach Radar (PAR).
AG	Glide path, Instrument Landing System.	**EI**	Monitoring device associated with . . . (*specify*) radio aid.
AH	Non-directional Beacon (NDB).	**EJ**	All air-ground facilities (except . . .).
AI	Instrument Landing System (ILS).	**EK**	Precision Approach Radar (PAR).
AJ	Radio range (other than VOR) and associated voice communications.	**EL**	LORAN.
		EM	Azimuth element of the Precision Approach Radar (PAR).
AK	Radio receiving facilities.	**EN**	DME (1000 Mc/s. Distance Measuring Equipment).
AL	Localizer, Instrument Landing System.	**EO**	Beam Approach Beacon System (BABS).
AM	Locator, inner, Instrument Landing System.	**EP**	Radar responder beacon.
AN	TACAN.	**EQ**	Surveillance Radar Element (SRE) of GCA.
AO	Locator, outers, Instrument Landing System.	**ER**	Radio transmitting facilities.
AP	VOR (VHF Omnidirectional Radio Range) and associated voice communications.	**ES**	All radio-navigation facilities (except . . .).
AQ	VOR (VHF Omnidirectional Radio Range).	**ET**	Teletypewriter transmitting facility (ies).
AR	Radio range (other than VOR).	**EU**	Radio direction-finding station . . . (*frequency or type*).
AS	Radio range leg.	**EV**	VORTAC (the combination of VOR and TACAN).
AT	Attentional signal.	**EW**	Ground interrogator, SSR system.
AU	Meteorological communications . . . kc/s. (*or* . . . Mc/s.).	**EX**	Unassigned.
AV	Voice communications . . . kc/s. (*or* . . . Mc/s.).	**EY**	Ground movement radar.
AW	Unassigned.	**EZ**	Unassigned.
AX	Non-directional Beacon (NDB) and voice facility.		
	LIGHTING FACILITIES		
IA	Boundary lights.	**ID**	Channel lights.
IB	Aerodrome beacon.	**IE**	Light beacon.
IC	Unassigned.	**IF**	Floodlights.

DECODE

SECOND AND THIRD LETTERS (Contd.)

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	LIGHTING FACILITIES (Contd.)		
IG	Angle-of-approach lights.	IP	Approach light system [type . . . {*specify LSA (low intensity) or LSB (high intensity*}] (for runway number . . .).
IH	Taxiway lights.		
II	Hazard beacon.		
IJ	Threshold lights (for runway number . . .).	IQ	Runway alignment beacon.
		IR	Runway lights [type . . . {*specify LSA (low intensity) or LSB (high intensity)*}] (for runway number . . .).
IK	Flares.		
IL	All landing area lighting facilities.		
IM	Identification beacon.	IS	Strip lights [for strip . . . (*number or magnetic direction*)].
IN	Unassigned.	IT–IY	Unassigned.
IO	Obstruction lights.	IZ	Airway course lights.
	AERODROMES — SEARCH AND RESCUE — DANGERS TO AIRCRAFT IN FLIGHT		
OA	Land aerodrome.	UB	Mooring buoys.
OB	Beaching facilities.	UC	Unassigned.
OC	Water aerodrome.	UD	Prohibited, restricted or danger area designated as . . . (*name or reference identification*).
OD	Meteorological forecast service.		
OE	Meteorological observation service.		
OF	Meteorological watch service.	UE	Aircraft.
OG	Runway arresting gear.	UF	Fixed balloons.
OH	Helicopter landing area.	UG	Bombing or aerial depth charge dropping.
OI–OL	Unassigned.		
OM	All runways [except number(s) . . .].	UH	Air exercises (*or* flying displays).
ON	Stopway for runway number.	UI	Gun or missile firing.
OO	Taxiway(s).	UJ	Glider flying.
OP	Rescue vessel.	UK	Demolition of explosives.
OQ	Ocean Station Vessel.	UL	Landing direction indicator.
OR	Refueling [. . . type fuel(s) *or* . . . octane].	UM	Mooring and docking facilities.
		UN	Parachute jumping exercises.
OS	Search and rescue aircraft [*specify VLR, LRG, MRG, SRG or HEL*].	UO–UP	Unassigned.
		UQ	Apron.
OT	Crash and fire fighting facilities.	UR	Runway(s) and number(s).
OU	Unassigned	US	Strip . . . (*number or magnetic direction*).
OV	. . . [*specify TWR, APP, ACC or FIC*] air traffic service.	UT	Grass landing area.
		UU	Unassigned.
OW–OY	Unassigned.	UV	Fog dispersal equipment.
		UW–UY	Unassigned.
OZ	Warship.	UZ	Runway threshold (number . . .).
UA	Alighting area.		

DECODE
FOURTH AND FIFTH LETTERS

4th & 5th Letters	SIGNIFICATION	4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES		
AA	Unassigned.	**EC**	Characteristics *or* identification *or* radio call sign changed to . . .
AB	Usable for length of . . . and width of . . .	**ED**	Operating frequency(ies) will be changed to . . . kc/s. (*or* . . . Mc/s.) effective . . . (*date/time*).
AC	Covered by snow to a depth of . . . NOTE.—*This snow is not compacted.*	**EE–EG**	Unassigned.
AD	Cleared of soft snow, full length and width.	**EH**	Not heard.
AE	Totally free of snow and ice.	**EI–EL**	Unassigned.
AF	Covered by [. . . (*type*)] ice to a depth of . . .	**EM**	Military operations only.
AG–AH	Unassigned.	**EN**	Not available due to . . . (*specify reason*) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
AI	Operating without tone modulation.	**EO**	Unassigned.
AJ	Operating without coding.	**EP**	Available on prior permission (of . . .) only.
AK	Covered by compacted snow to a depth of . . .	**EQ–ER**	Unassigned.
AL	Operating on reduced power.	**ES**	Out of service from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] due to the following condition(s) . . .
AM	Snow clearance in progress [estimated time of completion is . . . (*date/time*)].	**ET**	Test operation only. NOT for operational use.
AN	Grass cutting in progress [estimated time of completion is . . . (*date/time*)].	**EU–EV**	Unassigned.
AO	Marked by . . .	**EW**	Completely withdrawn.
AP	Work is in progress [estimated time of completion is . . . (*date/time*)].	**EX**	Unassigned.
AQ	Work completed.	**EY**	Is outside the limits of its assigned ocean station.
AR	Snow clearance completed.	**EZ**	Is within the limits of its assigned ocean station.
AS	Grass cutting completed.	**IA–IB**	Unassigned.
AT	Sanding is in progress [estimated time of completion is . . . (*date/time*)].	**IC**	Report of apparent unreliability or track displacement hereby is cancelled.
AU	Appears unreliable.	**ID**	Available on request to . . .
AV	Covered by ice patches.	**IE**	Unassigned.
AW	Height of snowbanks is . . . (*figures and units*).	**IF**	Flight checked and found reliable.
AX	Braking action is . . . (A = *good*, B = *medium*, C = *poor*).*	**IG–IJ**	Unassigned.
AY	Are to avoid area, radius of danger being . . . (about the point . . .).	**IK**	Available on request (to . . .) immediately [*or* at . . . (*time period*) notice].
AZ	Will take place from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] (on the days of . . . between the hours of . . . and . . .) at . . . (*location*) (within the sector of . . . and a radius of . . .) at . . . height above . . . (*datum*).	**IL**	Hours of service are now . . .
EA	Unassigned.	**IM**	Unassigned.
EB	Location change to . . . effective . . . (*date/time*).	**IN**	Operative (*or* re-operative), activated (*or* re-activated) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
		IO	Operating normally.

DECODE

FOURTH AND FIFTH LETTERS (Contd.)

4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES (Contd.)
IP	Track(s) reported to be displaced (. . . degrees) (. . . direction) of published bearing(s), other tracks probably have shifted.
IQ	To be used as radio beacon only.
IR	Magnetic track(s) towards station is are now . . . [will be . . . at . . . (*date/time*)].
IS	Operative (or *re*-operative) subject to conditions/limitations already published.
IT	Aircraft restricted to runways and taxiways.
IU	Unserviceable for aircraft heavier than . . . tons.
IV	Unsafe from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IW–IZ	Unassigned.
OA–OF	Unassigned.
OG	Operative but ground checked only, awaiting flight check.
OH–OJ	Unassigned.
OK	Resumed normal operation.
OL	Track(s) ground checked, approved for instrument flying.
OM	Shut down for maintenance from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)]—disregard all signals.
ON–OQ	Unassigned.
OR	Previously promulgated shutdown has been cancelled.
OS	Unassigned.
OT	New facility in operation.
OU	Operating without interruption for voice transmissions from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
OV–OW	Unassigned.
OX	Exercising at . . . (*date/time, location and height above the specified datum*).
OY–OZ	Unassigned.
UA	Closed to all operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UB–UC	Unassigned.
UD	Closed to all night operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UE	Unassigned.
UF	Closed for an unknown duration due to flood.
UG	Closed for an unknown duration [*or* until . . . (*date/time*)] due to ice or snow.
UH	Closed for an unknown duration [*or* until . . . (*date/time*)] due to thaw.
UI	Closed from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] for maintenance.
UJ–UL	Unassigned.
UM	Operating in an unmonitored status.
UN–US	Unassigned.
UT	Operative but caution advised due to following condition(s) . . .
UU	Suitable for . . . (*specify*) equipped aircraft only.
UV	Covered by slush to a depth of . . .
UW	Covered by water to a depth of . . .
UX–UZ	Unassigned.

ATTENTION FAA PERSONNEL **ATTENTION FAA PERSONNEL**

AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE–FY 1965

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

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Effective Date	Section I	Section II	Section III	Section III–A	Section IV	Section IV–A
December 24				December 14		
January 7			December 21	December 21		December 21
January 21				January 11		
February 4			January 18	January 18		January 18
February 18				February 8		
March 4		February 8	February 16	February 16		February 16
March 18				March 8		
April 1			March 15	March 15		March 15
April 15				April 5		
April 29			April 12	April 12		April 12
May 13				May 3		
May 27	April 26	May 3	May 10	May 10	April 26	May 10
June 10				June 1		
June 24			June 7	June 7		June 7

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

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- ☐ Section I, Basic Flight Manual
- ☐ Section II, ATC Operations and Procedures
- ☐ Section III, Flight Data and Special Operations
- ☐ Section III–A, Notices to Airmen
- ☐ Section IV, Airport Directory
- ☐ Section IV–A, Airport/Facility Directory

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PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200-SS; intermittently week-days. Up to 14,500' MSL.

Headland Mun Arpt: 1 mi E. 1200 LST to sunset. Sundays. Up to 12,000'.

ARIZONA

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000' MSL and 24,000' MSL.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000' MSL; 3 mi ESE. Up to 7000' MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000' MSL.

Tucson, Ryan Fld: Up to 12,000'.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000' MSL.

Fayetteville: 1 mi NNW Razorback Arpt. Mon thru Sat 2200GMT-sunset. Suns and holidays 1400 GMT– sunset.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

Russellville Arpt: 4 mi SW. Weekends. Check NOTAMS for holiday and ngt. Up to 12,000'.

CALIFORNIA

Arvin: 1½ mi SW. 0800–SS Sat and Suns. Up to 15,000' MSL.

Avenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000'.

Black Point: Sky diving weekends up to 12,500'.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500' MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500'. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clear Lake: Into Clear Lake at 39°05'N, 122°51'W. Mon thru Sat. Up to 4400' MSL.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Fairoaks, Skylark Fld: Up to 13,700' MSL. Moderate weekdays, hvy weekends and holidays.

Fort Ord (Fritzsche AAF): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800'–15,000', opening at absolute alts of 2000'–2500'. Center of drop zone lctd at 36°38'N, 121°46'W in Restricted Area R-2511. Ctc Fritzsche Twr for advisory info.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500'.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000'.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500' MSL.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000' MSL.

Lake Berryessa: Lat 38°31', 122°12'. Mon thru Sat. Up to 2000' MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld, Santee, Calif., two mi out of ctl area. Daily, greatest activity weekends. Up to 15,000'.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends and holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy btn Linden and Sacramento VORs. Up to 9,500'.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000' MSL.

Milpatas, King Skylanes Arpt: 3 mi E; Weekends. From 12,500'.

Ojai, Henderson Arpt: Weekends from 14,000' MSL 3 mi SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500' MSL. Weekends and holidays.

Piru: Tues-Fri. 2 mi E. Up to 14,500'.

San Diego, Brown Fld: NW corner of fld. Weekdays, morning hrs. Up to 15,000'.

San Diego–County Arpt (Gillespie Fld): Up to 20,000' MSL, chute opening alt aprxly 2700–3000' MSL in vcnty of arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up to 15,000'.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. Weekdays and ngts. Up to 15,000'.

Santa Maria Arpt: Weekends and holidays. Up to 15,000' MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Taft Arpt: About 6 mi E. Daily, up to 20,000'.

COLORADO

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Suns and holidays. Up to 18,500' MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 and 20,000'.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 15,000' MSL.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500' AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 13,500' AGL.

Longmont Mun Arpt: Weekends and holidays up to 15,000'.

CONNECTICUT

Burlington, Johhnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Buchan Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.

Clewiston, Airglades Arpt: Up to 12,000′.

Deland Mun Arpt: Up to 7,000′ daily and weekends.

Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays. Up to 12,000′.

Homestead AFB: Occasionally. Up to 1,000′ MSL.

Howey Arpt: Weekends. Up to 10,000′.

Kissimmee Arpt: Daily and weekends. Up to 12,000′.

Marianna Mun Arpt: 5 mi radius; weekends during daylight hrs and intermittently daily Mon thru Fri and at ngt. Up to 12,500′.

Palatka, Kay Larkin Arpt: Weekends.

Santa Rosa Island: Daily. Up to 12,500′.

Venice Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.

Williston Mun Arpt: Weekends.

Zephyrhills Arpt: Sundays. Up to 12,500′.

GEORGIA

Cleveland, White Co Arpt: Weekends. Up to 12,500′.

Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

Stockbridge, Bellah Fld: Weekends. Up to 15,500′.

Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.

Alton, Civic Meml Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.

Breese Arpt: ½ mi N. Up to 7,000′.

Chicago, Hammond Arpt: Weekends. Up to 12,500′.

Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

Hebron Arpt: Daily.

Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

INDIANA

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

Rising Sun Arpt: Sundays. Within 5 mi radius. Up to 14,500′.

Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.

Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

KANSAS

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Make Arpt: Weekends and intermittently at other times Up to 15,000′.

Salina Mun Arpt: Evenings and weekends. From 12,500′

KENTUCKY

Henderson City Co. Arpt: 149° radial EVV VOR 8.1 nmi Up to 10,000′ MSL.

Hopkinsville, Christian Co. Arpt: 4 mi NNE. Tues evening and Weekends. Up to 12,500′.

Madisonville, Athey Arpt: Suns and holidays 0700–SS. Up to 12,500′.

Thornhill: 133° radial CVG VOR 15 nmi. Weekends. Up to 12,000′ MSL.

LOUISIANA

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000

Fort Polk, Polk AAF: 2 nmi radius.

Hammond Arpt: Intermittently. Up to 10,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland, Mexico Farms Arpt: Up to 3000′. Most activity weekends.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

MASSACHUSETTS

Agawam: Evenings, weekends and holidays.

Bedford, Hanscom Fld: 1600–2000Z Thur and Sat. Up to 1500′.

Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.

Mansfield Mun Arpt: 2–3 NM W (vcnty of old Attleboro Arpt). Up to 7,000′.

Mansfield Mun Arpt: Unscheduled. Mostly weekends and holidays. Up to 12,000′.

Maynard Ordnance Depot: Airdrops of personnel and hvy eqpmt from 500′ to 2500′ Thurs, between 1500Z and 2000Z, within 1 mi radius of 42°25′, 71°28′45″.

Montague, Turners Falls Arpt: Weekends and holidays. Up to 13,000′.

Orange Mun Arpt: 2 mi radius. Day and night. Most activity weekends and holidays; moderate weekends Up to 14,500′.

Taunton Mun Arpt: Weekends. Up to 7200′.

MICHIGAN

E. Tawas, Iosco Arpt: Up to 13,500′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.
Marshall, Brooks Fld: Weekends. Up to 13,000′.
Monroe: 5 mi S. Weekends. Up to 15,500′.
Muskegon Northside Airport: Up to 15,000′.
Plainwell, Otsego-Plainwell Mun Arpt: Sundays.
Saginaw Arpt: Weekends. Up to 13,000′.
Wixom Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000′.

MINNESOTA

Aitkin Mun Arpt: Weekends.
Bethel: 2 mi E. Weekends. Up to 12,000′. Summer months: Wed afternoons.
Minneapolis, Flying Cloud Arpt: 5 SM S. Up to 1500′ MSL.

MISSISSIPPI

Lucedale, Farmco Arpt: Weekends. Up to 12,000′.

MISSOURI

Houston Memi Arpt: Weekends. Up to 12,000′ MSL.
St. Louis, Lebanaster Arpt: Weekends and holidays. Up to 11,000′.

MONTANA

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.
Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′: Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.
Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: Weekends. Up to 12,500′ MSL.
Las Vegas, Thunderbird Fld: 3.5 mi WSW 7 days a wk. Up to 12,500′.

NEW JERSEY

Mainstown Arpt: Daily excp Tues. From 13,000′.
Lexington, Adams Arpk: Dalgt hrs. Weekends. Up to 25,000′.
Lightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.
Lakehurst NAS-West Fld: Up to 12,000′.
Lakewood Arpt: Within 2 mi radius. Up to 12,500′.
Manville Kupper Arpt: Dalgt hrs daily. Up to 25,000′.
Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.
Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000′.
Greene Arpt: Within 5 mi radius. Weekends and holidays till 1 hr after SS. Wed 1500–1 hr after SS. Up to 15,000′.
Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. Up to 13,000′ AGL.
Randolph Arpt: Daily. Up to 15,000′.
Stormville Arpt: Weekends and holidays. Up to 12,000′.

NORTH CAROLINA

Charlotte, Brockenborough Arpt: 5 mi N. Wed, Sat and Suns, beginning at 1200E. Up to 14,000′.
Erwin Arpt: Weekends.
Greensboro, Air Harbor Arpt: Weekends.
New River MCAF: On V157 1100–0300 daily from 23,500′.
Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500′.

OHIO

Bucyrus, Port Bucyrus Arpt: Weekends. Up to 12,500′.
Canton City Arpt: 2 NE Canton · 7 mi SE Akron Canton Arpt. Up to 16,000′ MSL.
Circleville: 5 mi NE. Sat and Sun 1600Z to SS. Up to 12,000′.
Columbia Station Arpt: About 3 mi SW. Daily. Up to 8500′ AGL.
Columbus Mun Arpt: 17 mi SW. Evenings except Mon and Fri; weekenus and holidays. Up to 10,000′ AGL.
Columbus Air Park: Weekends SR–SS. Week days evenings. Up to 25,000′.
Elyria, Nimrod Arpt: 2000Z thru 0300Z Mon thru Fri., 1500Z thru 2400Z Sat and Sun. Up to 12,500′ AGL.
Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000′ AGL.
Geneva, Gormack Arpt: 3 mi SE Suns 1600Z–0200Z. Up to 9,000′.
Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500′.
Piqua Arpt: Up to 12,000′. Daily.
Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Weekends. Up to 10,000′.
South Dayton Arpt: Up to 18,000′. Daily.
Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.
Waynesville Arpt: Suns. Up to 10,000′.
Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.
Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.
Xenia Arpt: Daily. Up to 20,000′.
Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

OKLAHOMA

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.
Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.
Cave Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000′ AGL.

Medford Arpt: 4 mi W. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Portland: From various alts, moderate wkdays, hvy wkends and holidays. Jump sites 5 mi S of Hillsboro arpt: 3 mi S of Beaverton arpt; 3 mi E of Scholl Arpt, Orchards, Wash; and 7 mi NNE Scholl Arpt.

Portland: ½ mi S of Scholl, Wash.

Portland: 3 mi W of Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000'.

PENNSYLVANIA

Campbelltown, Reigles Arpt: Daily. Up to 15,000'.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500' MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000'.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500'.

New Hanover Arpt: Most activities weekends. Up to 12,500'.

Pottstown Arpt: Weekends. Up to 8000'.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000'.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000'.

SOUTH CAROLINA

Fairfax Arpt: Weekends. Up to 12,500'.

Lane Arpt: Low level navigation and parachute drops every day and night, 300' to 1000'.

Moncks Corner Mun Arpt: Weekends. Up to 10,000'.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500'.

Sumter Arpt: Daily 1800Z to sunset. From 7,200'. Sat, Sun, holidays. Up to 10,000'.

Timmonsville, Huggins Arpt: Sat, Sun and holidays. From 10,000'.

Walterboro Mun Arpt: Weekends. From 10,000'.

TENNESSEE

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000'.

Cleveland, Hardwick Fld: 6 mi S. 0600 to 1900 EST 7 days per wk. Up to 12,500'.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500'.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000'.

TEXAS

Abilene Dyess AFB: One mile E of S end rnwy. From 3300'.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000' MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200Z thru 0500Z and 1900Z thru 2300Z Sats and Suns. Up to 2040' MSL.

Cleburne Arpt: Weekends. Up to 7,500' MSL.

Ellington AFB: 5 mi S on 350°M. Up to 1500' MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500' MSL.

Ganado, Calaway Arpt: Weekends. Up to 10,000'.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000'.

Houston, Weiler Arpt: Parachuting, gliding and ballooning within 5 mi radius. Daily, day and ngt. Up to 24,000'

Lampasas Arpt: Weekends. Up to 14,000' MSL.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500'

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000 MSL.

San Antonio, Lakefield Arpt: 1.5 mi W. Weekends and holidays. Up to 14,000'.

San Antonio, Stinson Fld: 4 NM S SW.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500'.

Taylor Mun Arpt: Weekends.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500' MSL.

Ogden: 8 mi N. Up to 12,000' MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000' MSL.

Wendover, Hill AFB: Two times per mo. during daigt hr and two times per year during ngt time, 1200' W o rnwy 14–32. Up to 6000' MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up t 5800' MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up t 7500'.

Swanton, Austin Arpt: Weekends. Up to 6000'.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000'. Occasional sk diving.

Clover Arpt: 3 mi radius. Suns. Up to 8,000'.

Forest, New London Arpt: Daily. Up to 11,000'.

Hopewell Arpt: Weekends. Up to 9000'.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340 radial. Weekends. Up to 12,500'. Occasional ng jump.

Midland: 8 nmi from CSN VOR on 120° rad. Weekend Up to 12,000'.

New Castle Intl Arpt: Weekends and holiday. Up t 14,000'.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–230 Sat, Sun & holidays. Up to 12,000'.

Pulaski, New River Valley Arpt: Weekends, holidays, an evening. Up to 13,000'.

South Boston, Tuck Arpt: Within 3 mi radius. Suns 12 to 1800 EST. Up to 10,000'.

South Norfolk Arpt: Within 5 mi radius. Weekends an evenings. Up to 13,000'.

Suffolk Mun Arpt: Weekends and holidays. Up to 12,000

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000'.

West Point Arpt: Weekends and holidays. Up to 12,00

WASHINGTON

Enumclaw Arpt: Weekends and holidays. Up to 15,00

Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up t 7000'.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000'

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500' MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000'.

Richland Arpt: 3 mi W SR to 1 hr after SS. Up to 12,500' AGL.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

Juneau (Dodge Co Arpt): Weekdays after 1700 Sat and Sun afternoons. Up to 13,500'.

Lake Geneva/Natl Sports Parachuting Center: Daily. Up to 15,000'.

Superior Arpt: 5 mi SE weekends SR–SS. Up to 12,500'.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500' MSL.

Ossee: 3 mi W. Sundays. Up to 10,000'.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

The following list will hereafter appear in EACH issue of the AIRGI.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Low Altitude Stratum—A distinctive numbering system (800 Series) has been introduced to indicate some of the preferred routes in this stratum and thereby eliminate the present lengthy route descriptions. Many of the preferred routes, however, retain the common basic airway numbers or use the two systems of numbering in combination. Additional designations of "800 Series Airways" will be made where simplicity and convenience to both pilots and controllers dictate such assignments.

Preferred Route Starting and Terminating Fixes—Preferred routes generally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Survey, are the normal routes between the airport and the preferred route starting/terminating fixes. Whenever a fix is shown in **bold-face** type, pilots should refer to the appropriate Area Chart for the routing he may expect prior to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area, e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston..... V2 **GDM** (L-25)
Kennedy..... V91 V475 **DPK** (L-25)
La Guardia..... V91 V1 V123 **Stanford** (L-25)
Newark..... V489 IGN SAX SAX 205 rad **Budd Lake** (L25)

ALBUQUERQUE

Denver..... **ADEN** V19W SAF V83 PUB V19E **IOC** (L-4, 6)
Kansas City..... **Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L-6)
Los Angeles..... **GNT** V12 EED V208 TNP V264S **ONT.** (L-4, 3)
Phoenix..... **GNT** V190N SJN V190 Lake. (L-4)

ATLANTA METRO AREA

Birmingham..... **Newman** V20N V66 V115 Lewis (L-20, 14)
Cincinnati..... Crabapple V97 **Dry Ridge** (L-20, 22)
Charlotte..... **Conyers** V66 FML (L-20)
Chicago..... **Crabapple** V51 **CGT** (L-14, 20, 21, 23)
Dallas..... **Newman** V20N V66 TCL V18N MEI V18 MLU V94 V477E **Forney** (L-20, 18, 17, 13)
Dulles Intl..... **Conyers** V66 FML V454 LVL V155 GVE V39 **CSN** (L-20, 22)
Houston..... **Newman** V20N V66 TCL V18N MEI V194 MCB V222 LCH V222N **Monument** (L-20, 14, 18, 17, 15)
Kennedy..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 (L-20, 22, 24)
Jacksonville..... **ATL** V243 V5W **Callahan** (L-20, 18)
La Guardia..... **Conyers** V66 FML V454 LVL V157 RIC V20 V21 **JFK** (L-20, 22, 24)
Memphis..... **Newman** V20N V66 V115 BHM V176N HLI (L-20, 1
Miami..... **Brooks** V843 **MIA** (L-20, 18, 19)
Newark..... **Conyers** V66 FML V454 V157 V20 V213 V29 V43 **Rocky Hill** (L-20, 22, 24)
Orlando..... **Griffin** V243 AMG V157 OCF V159W Clermont (L-2 18, 19)
Pittsburgh..... **Crabapple** V97 TYS V115 PKB V119 **HLG** (L-2 22, 24)
Tampa..... **Brooks** V843 HOMO V35E **Hazel** (L-20, 18, 19)
Washington..... **Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 2

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta..... ANB V18 **Sargent** (L-14, 20)
New Orleans..... TCL V875 **Madison** (L-14, 18, 17)
Pittsburgh..... GAD V115E CHA V115 PKB V119 **HLG** (L-14, 22, 24

BOSTON METRO AREA

Albany..... V14 **Melrose** (L-25)
Buffalo..... V14 **Bellona** V31 ROC V142 **Grant** (L-25)
Cleveland..... V14 ALB V72 **Hadley** V232 **Mentor** (L-25, L-24)
Kennedy..... **PUT** V879 **DPK** (L-25)

BOSTON METRO AREA—Continued

La Guardia..... **Millbury** V875 V157 **Stamford** (L-25)
Newark..... **Millbury** V875 V251 SAX SAX 205 rad **Budd Lake** (L-25, 24)
Philadelphia..... **Millbury** V875 **Warrington** (L-25, 24)
Rochester..... V14 Bellona V31 Fishers (L-25)
Washington..... **PUT** V888 **North Beach** (L-25, 24)

BUFFALO METRO AREA

Boston..... **GEE** V14 **GDM** (L-12, L-25)
Cleveland..... **Langford** V464 DKK V14 **Mentor** (L-12, 24)
Detroit..... V2 QO V90N Dolphin V90 **QG** (L-12, 23)
Kennedy..... V252 BGM V270 V34 V475 **DPK** (L-12, 25)
La Guardia..... V252 GEE V147 ABE V6 V433 **Liberty** (L-12, 25)
Midway..... V84 LAN V218 **Sarl** (L-12, 23)
Newark..... V252 GEE V147 ELM V36 AVP 153 **BUDD LAKE** (L-12, 25)
O'Hare..... V84 **OBK** (L12, 23)
Philadelphia..... V33 HAR V12 **ESR** (L-12, 24)
Pittsburgh..... V115 **EWC** (L-12, 24)
Washington..... V33 HAR V265 **Clarksville** (L-12, 24)

CHARLESTON, W. VA.

Cincinnati..... V128 YRK V128S **Granite Lick** (L-22)
Cleveland..... V115 PKB V839 **Sharon** L-22, 24, 23)
Columbus..... V133 V214 Hanover (L-22, 23)
Louisville..... V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh..... V115 PKB V119 **HLG** (L-22, 24)
Washington..... V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta..... FML V194 Homer V20N **OCR** (L20)
Cleveland..... Moorseville V37 PSK V839 **Sharon** (L-20, 22, 24)
Kennedy..... New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
La Guardia..... New London V454 LVL V157 V20 V213 **JFK** (L-20, 22, 24)
Miami..... FML V37 ALD V157 LAL V843 **Cypress** (L-20, 18, 19)
Washington..... New London V454 LVL V157 **Ironsides** (L-20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta..... **EON** V843 **Kennesaw** (L-23, 21, 14, 20)
Denver..... **Malta** V846 (L-23, 6, 8)
Detroit City..... V100 V218 Plains V42 **Troy** (L23)
Dulles..... **EON** V853 **HRN** (L-23, 22)
Kennedy..... V6 SEG V810 **RBV** (L-23, 24)
Indianapolis..... **EON** V128 (L-23)
La Guardia..... V6 V433 **Liberty** (L-23, 24)
Los Angeles..... **Malta** V846 DEN V8 (L-23, 6, 8, 3)
Memphis..... **Big Rum** V173 CAP V9 **Kenville** (L-23, 21, 14)
Miami..... **EON** V843 (L-23, 21, 14, 18, 19)
Minneapolis..... V855 **FGT**; or V172 V129 RWY V855 **FGT** (L-23, 11, 10)
Newark..... V6 SEG V30 **Rocky Hill** (L-23, 24)
Philadelphia..... V6 V30 PSB V33 HAR V12 **ESR** (L-23, 24)
Pittsburgh..... V6 V103 ACO V297 **EWC** (L-23)
San Francisco..... **Malta** V854 (L-23, 11, 8, 7, 2)
St. Louis..... **Big Rum** V191 V426 **Godfrey** (L-23, 21)
Tampa..... V843 Home V35E **Hazel** (L-23, 21, 14, 20, 18, 19)
Tulsa..... V845 EOS V14 (L-23, 6, 14)
Washington..... **EON** V853 **HRN** (L-23, 22)

From Midway only

Cleveland..... **Crib** V6 V232 **Vermilion** (L-23)
Des Moines..... **API** V8 CVA V233 CID V846 **TNU** (L-23, 11)
Kansas City..... **API** V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co... V10 **Dundee** (L-23)
Omaha..... **API** V8 CVA V233 CID V846 EOL (L-23, 11)
Willow Run..... **Crib** V10 LFD V90 (L-23)

From O'Hare only

Cleveland..... V172 V228 SBN V6 V232 **Vermilion** (L-23)
Des Moines..... V172 **TNU** (L-23, 11)
Kansas City..... V84 BDF V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co... V100 Leroy V30 LFD V10 **Dundee** (L-23)
Omaha..... V172 PLL V846 EOL (L-23, 11)
Willow Run..... V100 V30 V90 (L-23)
Windsor..... V100 V218 **Plains** (L-23)

CINCINNATI METRO AREA

Atlanta..... V97 TYS V267 **OCR** (L-21, 22, 20)
Charleston, W. Va. V128 (L-21, 22, 20)
Chicago..... V97 **CGT** (L-21, 23)
Detroit (City)..... V275 VWV V47 **SVM** (L-21, 23)
Indianapolis..... V97 (L-21, 23)
La Guardia..... V128 YRK V44 MGW V106 SEG V6 V433 **Liberty** (L-22, 24)
Louisville..... V47 ABB V51 (L-21)
Metro Wayne Co... V275 VWV V47 **Dundee** (L-21, 23)
Miami..... V47 ABB V51 CSV V51W CHA V843 **Cypress**, or V97 ATL V843 **Cypress** (L-21, 22, 20, 18, 19)
Newark..... V128 YRK V44 MGW V106 V30 **Rocky Hill** (L-22, 24)
Pittsburgh..... V128 YRK V44 PKB V119 **HLG** (L-22, 24)
St. Louis..... V47 ABB V44 ENL V4 **TOY** (L-21)
Willow Run..... V275 VWV V47 **Dundee** (L21, 23)

CLEVELAND METRO AREA

Boston..... V14N ERI V270 BGM V72 ALB V2 **GDM** (L-23, 24, 12, 25)
Buffalo..... V14N **Crystal Beach** (L-23, 24, 12)
Charlotte..... V443 TVT V133 Stanley (L-23, 22, 20)
Chicago..... V126 CGT V7 **Niles** (L-23)
Columbus..... V443 TVT V43 APE (L-23)
Dayton..... V14 ATO V435 ROD (L-23)
Detroit (City)..... V42E QG V90 (L-23)
Kennedy..... **ACO** V30 SEG V810 **RBV** (L-24)
Indianapolis..... **CLE** V14 (L23)
La Guardia..... **ACO** V30 CIP V6 Amboy V433 **Liberty** (L-24)
Metro Wayne Co... V42E V10 **CRL** (L-23)
Miami..... V881 **Cypress** (L-22, 20, 18, 19)
Newark..... **ACO** V30 **Rocky Hill** (L-24)
Philadelphia..... **ACO** V30 PSB V33 HAR V12 **ESR** (L-24)
Pittsburgh..... **ACO** V297 **EWC** (L-24)
Rochester.....V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington..... **ACO** V103 IRL V37 Millsboro V92 FRR V4 **HRN** (L-24)
Willow Run..... V42E QG V90 (L-23)

COLUMBUS

Charleston, W. Va.. APE V38 V133 (L–23, 24, 22)
Indianapolis..... Grindell V210 (L–23)
La Guardia..... APE V802 V6 V433 **Liberty** (L–23, 24)
Pittsburgh..... APE V12 **HLG** (L–23, 24)
St. Louis..... V12N V210 VLA V14N **Godfrey** (L–23, 21)
Toledo..... V38 FDY V47 (L–23)
Washington..... APE V144 ESL V4 **HRN** (L–23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo..... **Lakeside** V114 Claude (L–13)
Atlanta..... **DAL** V278 BHM V18N V18 **Sargent** (L–13, 14, 20)
Dulles Intl..... V830 MOL V251 **FRR** (L–13, 14, 21, 22)
El Paso..... **Joshua** V94 INK V16 **RIO** (L–13, 4)
Houston..... **Trinity Fork** V477 LOA V477W **Fairbanks** (L–13, 17)
Los Angeles..... **Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L–13, 4, 3)
Memphis..... **DAL** V830 PBF V16N Round Pond (L–13, 14)
Midway..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
New Orleans..... **DAL** V114 **French** (L–13, 17)
O'Hare..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
San Antonio..... **Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L–13, 15)
Tulsa..... **DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L–13, 6)
Washington..... **DAL** V830 **Ironsides** (L–13, 14, 21, 22)

DAYTON

Chicago..... DAY 001 Radial V277 FWA V55 V422 **CGT** (L–23)
Cleveland..... V275 FDY V8 MFD V246 **Sharon** (L–23)
Detroit (City)..... V275 FDY V47 **SVM** (L–23)
La Guardia..... V802 V6 V433 **Liberty** (L–23, 24)
Metro Wayne Co./ Willow Run..... V275 FDY V47 **Dundee** (L–23)
Oklahoma City.... DAY V50N IND V210 STL V14 TUL V14N **Stillwater** (L–23, 21, 6)
Washington..... V12 APE V144 ESL V4 **HRN** (L–23, 24)

DENVER METRO AREA

Chicago..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L–8, 11, 23)
Kennedy..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L–8, 11, 23, 24)

DETROIT METRO AREA

Kennedy..... V221 ERI V810 SEG V30 ETX **RBV** (L–12, 24)
From City and Windsor only
Newark..... V221 ERI V810 SEG V30 **Rocky Hill** (L–12, 23, 24, 28, 25)
Philadelphia..... V221 ERI V116 BFD V33 HAR V12 **ESR** (L–12, 24)
Ft. Wayne..... **SVM** V710 Leslie V45 JXN V221 (L–23)
Midway..... **SVM** V170 V84 V7E V116 (L–23)
Milwaukee..... **SVM** V170 PMM V30S **Pike** (L–12, 23)
O'Hare..... **SVM** V170 V84 **OBK** (L–23)
From Metro or Willow Run only
Buffalo..... V221 V90 V14N **Crystal Beach** (L–12)
Cleveland..... **Crest** V297 **Vermillion** (L–23)
Ft. Wayne..... **Dexter** V221 (L–23)
Midway..... **Pinckney** V170 V84 V7E V116 (L–12, 23)
Milwaukee..... **Dexter** V116 JXN V45 Leslie V170 PMM V30S Pi (L–12, 23)
O'Hare..... **Pinckney** V170 V84 **OBK** (L–12, 23)
Pittsburgh..... **Crest** V133 BAY V6 V42 ACO V297 **EWC** (L–23,2
Rochester..... V221 V90 V14 V2 (L–12)
Washington..... **Crest** V133 ZZV V144 ESL V4 **HRN** (L–23, 24)

EL PASO

Dallas..... **HUP** V66 MAF V16S BGS V16 ABI V66 Dentc V114 **Lakeside** (L–4, 13)
Los Angeles..... **EWM** V94 GBN V461 BXK V16 **ONT** (L–4, 3)
San Antonio..... **HUP** V198 **Boerne** (L–4, 15)

HAVANA

Miami..... Balboa drct MTH drct Sable B19 **PRR** (L–19)

HOUSTON METRO AREA

Atlanta..... **LaPorte** V20S LCH V20 LFT V70 EVR V20 **Tyree** (L–17, 18, 14, 20)
Dallas..... **Gulf Coast** V477E **Fernay** (L–17, 13)
New Orleans..... **LaPorte** V20S LCH V20 **Turtle** (L–17)
San Antonio..... **Andrau** V222 **Hunter** (L–17, 15)

INDIANAPOLIS

Detroit..... V11 **SVM** (L–23)
Evansville..... V11W SCJ V11E (L–21)
Kennedy..... V50 DAY V12 V162 V810 **RBV** (L–23, 24)
La Guardia..... V50 DAY V802 V6 V433 **Liberty** (L–23, 24)
Metro Wayne Co.... V11 V10 **Dundee** (L–23)
Midway..... V97W V97 **CGT** (L–23)
Newark..... V50 DAY V802 V30 **Rocky Hill** (L–23, 24)
Pittsburgh..... V50 DAY V12 **HLG** (L–23, 24)
St. Louis..... V14 VLA V14N **Godfrey** (L–21)
Willow Run..... V11 V10 **Dundee** (L–23)

JACKSONVILLE

Atlanta..... **Kings** V5E **MIDU** (L–18, 20)
Dulles Intl..... **Climb** V3E SAV V3 RDU V155 GVE V39 **CSN** (L–18 20, 22)
Kennedy..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V2 V213 ENO V44 **BGT** (L–18, 20, 22, 24)
LaGuardia..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V2 Tappahannock V213 **JFK** (L–18, 20, 22, 24)
Miami..... **Blue Jacket** V267 **New River** (L–19)
Newark..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V2 V213 V29 V433 **Rocky Hill** (L–18, 20, 22, 24)
Norfolk..... **Climb** V3E SAV V437 CHS V1 MYR V213 RMT V18 FKN (L–18, 20, 22)
Orlando..... **Blue Jacket** V267 Woodruff (L–18, 19)
Philadelphia..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V2 V213 **OOD** (L–18, 20, 22, 24)
Washington..... **Climb** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L–18, 20, 22)

KANSAS CITY METRO AREA

Midway..... **Excelsior** V116 **JOT** (L–21, 23)
O'Hare..... **Excelsior** V116 **JOT** (L–21, 23)
St. Louis..... **BSP** V12 **MTS** (L–21)
Wichita..... **Bonner Springs** V12 De Graff (L–6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia..... V4 CRW V106 SEG V6 V433 **Liberty** (L–21, 22, 24)
Newark..... V4 CRW V106 V30 **Rocky Hill Hill** (L–21, 22, 24)

MEMPHIS

Atlanta..... HLI V176 BHM V18N V18 **SARGENT** (L–14, 20)
Dallas..... **Eudora** V16S PBF V887 **DAL** (L–14, 13)
Dulles Intl..... **Moscow** V16S GHM V830 V251 **FRR** (L–14, 21, 22)
Midway..... Cuba V9W V9 **JOT** (L–14, 21, 22)
New Orleans..... **Arkabutla** V9W GRW V9 **MADISON** (L–14, 17)
O'Hare..... Cuba V9W V9 **JOT** (L–14, 21, 23)
Washington..... **MOSCOW** V16S GHM V830 **IRONSIDES** (L–14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta..... **MIA** V35 V7 LAL V157 AMG V51E DBN V5E **MDU** (L–19, 18, 20)
Charlotte..... **MIA** V35 V7 LAL V157 ALD V37 FML L–19, 18, 20)
Chicago..... **MIA** V35 FMY V819 DBN V267 TYS V97 **CGT** (L–19, 20, 22, 21, 23)
Cleveland..... **MIA** V819 (L–19, 20, 22, 21, 23)
Detroit (City)..... V839 CLE V42 **QG** (L–19, 20, 22, 21, 23)
Dulles Intl..... **GUPPY** Direct HALIBUT Control 1150 ILM V157 LVL V155 GVE V39 **CSN** (L–19, 20, 22)
Habana..... **Gary** V51 EYW drct SF/Rbn; or PRR/Rbn drct Leon drct EYW drct SF/Rbn (L–19)
Kennedy..... **Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L–19, 20, 22, 24)
Jacksonville..... **Martin** V3E PBI V3 DAB V3E **Shiloh** (L–19)
La Guardia..... **Guppy** drct Halibut Control 1150 ILM VIW V213 **JFK** (—19, 20, 22, 24)
Metro Wayne Co... V839 CLE V42 V10 **CRL** (L–19, 20, 22, 24, 23)
Newark..... **Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L–19, 20, 22, 24)
Pittsburgh..... **MIA** V35 V7 LAL V157 ALD V37 **AGC** (L–19, 20, 22, 24)
Tampa..... **MIA** V35 **Hanson** (L–19)
Washington..... **Guppy** drct Halibut Control 1150 ILM V157 **Ironsides** (L–19, 20, 22)
Willow Run..... V839 CLE V42 **QG** (L–19, 20, 22, 24, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago..... V9 **API**; or **Taylor** V7E V116 **Surf** (L–12, 23)
Detroit..... V2S MKG V2 **SVM** (L–12)
Kennedy..... V2S MKG V2 SVM V116 QG V810 SEG V30 ETX **RBV** (L–12, 23, 24)

MINNEAPOLIS METRO AREA

Midway..... **Prescott** V2 V97 V171 V6 **API** (L–10, 11, 23)
O'Hare..... **Prescott** V2 V97 **Lakewood** (L–10, 11, 23)

MONTGOMERY

Washington..... **TGE** V154 MCN V56 AGS V155 V157 **Ironsides**; or **Martin** V837 **Ironsides** (L–10, 20, 22)

NASHVILLE

La Guardia..... **Freedom** V140N LOZ V830 GVE V837 ENO V213 **JFK** (L–21, 22, 24)
Newark..... **Freedom** V140N LOZ V830 GVE V837 ENO V29 V433 **Rocky Hill** (L–21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta..... **PCU** V837 **Tyrone** (L–17, 18, 20)
Birmingham..... **PCU** V445 MEI V18 Abernant (L–17, 18, 14)
Dallas..... **Walker** V–114N ALEX V–114 GGG V–94 V–477E **Forney** (L–17, 13)
Dulles Intl..... **PCU** V837 GVE V39 **CSN** (L–17, 18, 20, 22)
Houston..... **TBD** V20S LFT V20 LCH V222N **Monument** (L–17)
Kennedy..... **PCU** V837 SBV V20 V213 ENO V44 **BGT** (L–17, 18, 20, 22, 24)
Memphis..... **PCU** V9E MCB V9 GRW V9E **Independence** (L–14)
Newark..... **PCU** V837 SBV V20 V213 ENO V29 V433 **Rocky Hill** (L–17, 18, 20, 22, 24)
Washington..... **PCU** V837 **Ironsides** (L–17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany..... **Sound** POU V487 Brainard (L–25)
Bradley..... **Sound** BDR BDR 020 radial Tamie (L–25)

From Newark only

Albany..... **SAX** POU V487 Brainard (L–25)
Atlanta..... **SBJ** V875 MOL V143 V222 V35 V20N **OCR** (L–24, 22, 20)
Baltimore..... **SBJ** V875 V93 (L–24)
Boston..... **SAX** POU V861 Sterling (L–25)
Bradley..... SAX IGN IGN 096 radial Tamie
Buffalo..... **TVE** V188 V147 V36 **Dale** (L–25)
Cincinnati..... **SBJ** V875 V166 V4 V174 V128S **Grants Lick** (L–24, 22)
Cleveland..... **TVE** V232 **Mentor** (L–24, 23)
Detroit (City)..... **TVE** V188 V103 **QG** (L–24, 23)
Detroit Metro Area. **SAX** V880 **QG** (L–24, 23)
Dulles Intl..... **SBJ** V875 EMI V166 V223 **Sugar Loaf** (L–24)
Indianapolis..... **TVE** V232 V804 (L–24, 23)
Jacksonville..... **SBJ** V875 V29 SWL V139 V1 V437 SAV V3 **St. Marys** (L–24, 22, 20, 18)
Louisville..... **SBJ** V875 V166 V4 V174 V44 FLM V502 (L–24, 22, 21
Metro Wayne Co... **TVE** V188 **CRL** (L–24, 23)
Miami..... **SBJ** V3 V29 SWL V139 CCV V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L–24, 22, 20, 19)
Nashville..... **SBJ** V875 MOL V887 HIY V140S **Shop Spring** (L–24, 22, 14)
New Orleans..... **SBJ** V875 **Madison** (L–24, 22, 20, 14, 18)
Norfolk Metro Area. **SBJ** V875 V29 SWL V139 CCV (L–24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia..... **SBJ** V875 **Warrington** (L–24)
Pittsburgh..... **TVE** V232 ETG V226 **EWC** (L–24)
Province..... **SAX** POU V861 V130 Lafayette (L–25)
Rochester..... **SAX** V807 Fishers (L–25)
Syracuse..... **SAX** V483 (L–25)
Toledo..... **TVE** V232 Mentor V126 (L–24, 23)
Washington..... **SBJ** V875 ESR ESR 244 rad **Clarksville** (L–24)
Willow Run..... **TVE** V188 V103 **QG** (L–24, 23)

From Kennedy only

Atlanta..... **Dutch** V888 V213 V20 SPA V20N **OCR** (L–24, 22, 20)
Baltimore..... **Dutch** V888 V44 (L–24)
Boston..... HOT V837 **HTM** (L–25)
Buffalo..... **HUO** V126 V36 **Dale** (L–25)
Cleveland..... **HUO** V126 V58 V226 V232 **Mentor** (L–25, 24, 23)
Detroit (City)..... **HUO** V126 V880 **QG** (L–25, 24, 23)
Dulles Int'l..... **HUO** TVE V39 V162 HAR V223 **Sugar Leaf** (L–25, 24)
Europe..... HTO V46 (L–25)
Jacksonville..... **Dutch** V139 V1 V437 V3 **St. Marys** (L–24, 22, 20, 19)
Louisville..... **HUO** TVE V39 V251 V166 V4 V174 V44 FLM V502 (L–25, 24, 22, 21)
Metro Wayne Co... **HUO** V126 BFD V72 V188 **CRL** (L25, 24, 23)
Miami..... **Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L–24, 22, 20, 19)
Montreal..... **Sound** POU V487 (L–25, 26)
New Orleans..... **Dutch** V888 V16 ROA V875 **Madison** (L–24, 22, 20, 14, 18, 17)
Norfolk Metro Area.. **Dutch** V139 CCV (L–24, 22)
O'Hare..... **HUO** V126 AVP V880 **OBK** (L–25,24, 23)
Philadelphia..... **Dutch** CYN V140 V239 **OOD** (L–24)
Pittsburgh..... **HUO** V126 AVP V58 V226 **EWC** (L–25, 24)
Providence..... HTO V837 (L–25)
Rochester..... **HUO** V249 V34 Fishers (L–25)
Syracuse..... **HUO** V483 (L25)
Toronto..... **HUO** V126 AVP V36 (L–25, 12)
Washington..... **Dutch** V888 **North Beach** (L–24)
Willow Run..... **HUO** V126 BFD V72 V188 V103 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta..... **Paterson** V875 MOL V143 V222 V35 V20N **OCR** (L–24, 22, 20)
Baltimore..... **Paterson** V875 V93 (L–24)
Boston..... Sound V863 (L–25)
Buffalo..... **SAX** V36 **Dale** (L–25, 12)
Cincinnati..... **Paterson** V875 V166 V4 V174 V128S **Grants Lick** (L–24, 22)
Cleveland..... **SAX** TOH V188 JFN V14 **Mentor** (L–24, 23)
Columbus..... **SAX** TOH V804 V119 V214 Hanover (L–24, 23)
Detroit (City)..... **SAX V880 QG** (L–24, 23)
Dulles Intl..... **Paterson** V875 EMI V166 V223 **Sugar Leaf** (L–24)
Indianapolis..... **SAX** TOH V804 (L–24, 23)
Louisville..... **Paterson** V875 V166 V4 V174 V44 FLM V502 (L–24, 22, 21)
Montreal..... **Sound** POU V487 (L–25)
Metro Wayne Co... **SAX** V880 V14N V188 **CRL** (L–24, 23)
Nashville..... **Paterson** V875 MOL V887 HIY V140S **Sharp Spring** (L–24,22, 21)
O'Hare..... **SAX** V880 **OBK** (L–24, 25)
Philadelphia..... **Paterson** V875 **Warrington** (L–24)
Pittsburgh..... **SAX** TOH V804 ETG V226 **EWC** (L–24)
Providence..... **Sound** V863 V130 Lafayette (L–24, 25)
Rochester..... **SAX** V807 Fishers (L–25)
Toronto..... **SAX** V36 (L–25, 12)
Washington..... **Paterson** V875 ESR ESR 244 rad **Clarksville** (L–24)
Willow Run..... **SAX** V880 V14N V188 V103 **QG** (L–24, 23)

NORFOLK METRO AREA

Charlotte..... CVI V194 **Midland** (L–22, 20)
Dulles Intl..... Farnham V286 **CSN** (L–22)
Kennedy..... CCV VI **BGT** (L–22, 24)
Jacksonville..... CVI V805 **St. Marys** (L–22, 20, 18)
LaGuardia..... CCV VI SBY V29 ENO V213 **JFK** (L–22, 24)
Newark..... CCV VI SBY V29 V433 **Rocky Hill** (L–22, 24)
Philadelphia..... CCV VI SBY V29 ENO V213 **OOD** (L–22, 24)
Richmond..... HCM V156 (L–22)
Washington..... Farnham V286 V157 **Ironsides** (L–22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton..... **Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L–21, 23)
Wichita..... **Crescent** V77 Mayfield (L–6)

ORLANDO

Atlanta..... Leesburg V159 ABY V97 **Brooks** (L–19, 18, 20)
Jacksonville..... Sanford V152 DAB V3E **Shiloh** (L–19)

PHILADELPHIA METRO AREA

Baltimore..... **EWT** V166 V93 (L–24)
Boston..... MIV 100 rad V837 **HTM** (L–24, L–25)
Buffalo..... **Reinholds** V170 SLT V501 ELZ V119 Burns V3 **Dale** (L–25)
Cleveland..... **Reinholds** V162S HAR V12 AGC V8 BSV V4 **Sharon** (L–24, 23)
Detroit (City)..... **Reinholds** V162S V12 V37 V103 V42 **QG** (24, 23)
Dulles Intl..... **EWT** 300 rad V875 EMI V166 V223 **Sugar Le** (L–24)
Kennedy..... **Columbus** V123 **RBV** (L–24)
Jacksonville..... **MIV** 180 rad V139 V1 V437 V3 **St. Marys** (L–24, 2 20, 19)
LaGuardia..... **Columbus** V213 **JFK** (L–24)
Metro Wayne Co... **Reinholds** V16S V12 V37 V103 V42 V10 **CRL** (L–2 23)
Miami..... **MIV** 180 rad V139 CCV V1 Control 1150 Sturgeo drct Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark..... V433 **Rocky Hill** (L–24)
Norfolk Metro Area.. **MIV** 180 rad V139 CCV (L–24, 22)
Pittsburgh..... **Reinholds** V162S V12 (L–24)
Rochester..... **Reinholds** V170 V31 Fishers (L–24, 25)
Washington..... EWT V166 EMI V3 V8 (L–24)
Willow Run..... **Reinholds** V162S V12 V37 V103 V42 **QG** (L–24, 23

PHOENIX

Albuquerque..... **Lake** V190 Suwanne (L–4)
El Paso..... V105 CZG V94 SSO V198 **Harrington Ranch** (L–4)
Kansas City..... V190 DHT V234 HUT V280 TOP V4N **Farley** (L–4, 6

PITTSBURGH METRO AREA

Buffalo..... V37 EWC V115 (L-24, 12)
Cleveland..... V40 **Sharon** (L-23, 24)
Philadelphia..... **CLN** V210 V12 **ESR** (L-24)
Willow Run..... V40 CLE V26 **Park** (L-24, 23)

From Greater Pittsburgh only

Atlanta..... V103 Finley V115 TYS V267 **OCR** (L-24, 22, 20)
Baltimore..... V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston..... **Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston, W. Va. V103 Finley V115 PKB V59 V106 (L-24, 22)
Chicago..... V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus..... V103 Wolfdale V214 (L-24, 23)
Detroit..... V40 CLE V26 **Park** (L-24, 23)
Kennedy..... V119 V279 **RBV** (L-24)
Indianapolis..... V210; or **Kilgore** V210 (L-24, 23)
LaGuardia..... V119 V276 Reedsville V802 V6 V433 **Liberty** (L-24)
Newark..... V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia..... **CLN** V210 HAR V12 **ESR** (L-24)
St. Louis..... **Kilgore** V210 VLA V14N **Godfrey** (L-23, 21, 6)
Washington..... V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago..... **AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy..... V802 Reddsville V276 **RBV** (L-24)
La Guardia..... V802 SEG V6 V433 **Liberty** (L-24)
Newark..... V12 HAR V162 V30 **Rocky Hill** (L-24)

PROVIDENCE

Kennedy..... V167 V16 V879 **DPK** (L-25)
LaGuardia..... V167 V875 V157 **Stamford** (L-25)
Newark..... V167 HFD V251 SAX SAX 205 rad **Budd Lake** (L25)

PORTLAND

Seattle..... V23 **Rainier** (L-1)

RICHMOND

Philadelphia..... V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore..... V147 ELM V31 (L-25, 24)
Boston..... Fishers V31 Bellona V14 **GDM** (L—25)
Detroit..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
Kennedy..... V147 GEE V252 BGM V270 V34 V475 **DPK** (L-25)
LaGuardia..... V147 ABE V6 V433 **Liberty** (L-25)
Newark..... V147 ELM V36 AVP V153 **Budd Lake** (L-25)
Philadelphia..... V147 ABE ABE 160 rad V3 **Warrington** (L-25, 24)
Washington..... V147 ELM V31 HAR V265 **Clarksville** (L-25, 24)
Willow Run..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)

SAN ANTONIO

Dallas..... **Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso..... **Guadalupe** V222 **Ric** (L-15, 4)
Houston..... **Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO

Chicago..... **LIN** V810 (L-2, 5, 7, 8, 11, 23)

SAN FRANCISCO/OAKLAND METRO AREA

Chicago (ORD).... **LIN** V810 **Lakewood** (L-2, 5, 7, 8, 11, 23)
From San Francisco only
Burbank/Los Angeles. **Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2, 3)
Kennedy..... **LIN** V810 OBK V84 LAN V2 SVM V116 ERI V170 V276 **RBV** (L-2, 5, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland..... **TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V246 **Sharon** (L-21, 23)
Columbus..... **TOY** V12 (L-21, 23)
Dallas..... V14 EOS V845 **Gainesville** (L-21, 6, 13)
Ft. Worth..... V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis..... **TOY** V12 Wilbur V11 (L-21, 23)
Kansas City..... V4 **Missouri City** (L-21)
Memphis..... V9 Kerrville (L-21, 14)
Midway/O'Hare... V9 **JOT** (L-21, 11, 23)
Tulsa..... V14 (L-21, 6)
Washington..... **TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

Kennedy..... V273 HNK V34 V475 **DPK** (L-25)
LaGuardia..... V153 V29 V6 V433 **Liberty** (L25)
Newark..... V153 **Budd Lake** (L-25)

TAMPA METRO AREA

Atlanta..... **V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami..... **Gibson** V97 **MIA** (L-19)

TORONTO

LaGuardia..... V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago..... V14 SGF V63 V116 **JOT** (L-6, 21, 11, 23)
Dallas..... OKM V845 **Gainesville** (L-6, 13)
Dayton..... V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis..... V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis..... V140 FYV V72 V9 **Lemay** (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston..... **Rock Hall** drct ENO V837 **HTM** (L24, L-25)
Chicago..... Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland..... Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville..... **BRV** V3 **St. Marys** (L-22, 20, 18)
Kennedy..... **Rock Hall** V123 **RBV** or Rock Hall V140 V238 V1 **BGT** (L-24)
LaGuardia..... **Rock Hall** V123 RBV V213 **JFK** (L-24)
Newark..... **Rock Hall** V433 **Rocky Hill** (L-24)
Philadelphia..... **Rock Hall** V123 **OOD** (L-24)
Pittsburgh..... Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta..... **CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L-22, 20)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Charleston, W. Va.. **CSN** V143 V156N V174 V4 (L–22)
Charlotte..... **BRV** V3 RDU V194 Weddington (L–22, 20)
Dallas..... **CSN** V887 **DAL** (L–22, 21, 14, 13)
Greensboro..... **CSN** V140 MOL V143 Leaksville (L–22)
Harrisburg..... **Ashburn** V8N V223 (L–24)
Jacksonville..... **BRV** V3 **St. Marys** (L–22, 20, 19)
Memphis..... **CSN** V887 Fisherville (L–22, 21, 14)
Miami..... **BRV** V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L–22, 20, 19)
Nashville..... **CSN** V887 LOZ V140S **Shep spring** (L–22, 21)
New Orleans..... **CSN** V875 **Madison** (L–22, 20, 14, 18)
Norfolk Metro Area.. **BRV** V286 Tappahannock V213 HPW (L–22)

From Baltimore only

Jacksonville..... V93 V213 V20 V157 V155 V3 **St. Marys** (L–24, 22, 20, 19)

From Dulles Intl only

Kennedy..... **EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L–24)
Jacksonville..... V39E GVE V155 FAK V3 **St. Marys** (L–24)
LaGuardia..... **EMI** V166 EWT V157 RBV V213 **JFK** (L–24)
Miami..... V39E GVE V155 FAK V806 ILM control 1150 Stu geon drct Tarpon drct PBI V159E **Oakland** (L–2 20, 19)
Newark..... **EMI** V166 EWT V433 **Rocky Hill** (L–24)
Philadelphia..... **MRB** V251 V12 **ESR** (L–24)

WICHITA

Oklahoma City.... Mayfield V77 PNC V77E **Stillwater** (L–6)
Kansas City..... White Water V77 TOP V4N **Farley** (L–6)

● The following preferred route revisions are effective Feb. 4, 1965:

ATLANTA METRO AREA

Jacksonville..... **Griffin** V243 AYS V243W **Callahan** (L20, 18)
Orlando..... **Griffin** V243 AYS V157 OCF V159W **Clermont** (L2 18, 19)

JACKSONVILLE

Atlanta..... **Kings** V5E DBN V5 **MDU** (L18, 20)

MIAMI METRO AREA

Atlanta..... **MIA** V35 V7 LAL V157 AMG V51 DBN V5 (L19, 18, 2

STANDARD INSTRUMENT DEPARTURES (SIDs)

(Explantory information is provided in Section II–8)

ARIZONA

Sky Harbor Municipal Airport, Phoenix

Effective January 7, 1965

Cancel Tolleson Five Departure and Tempe Six Departure.

CALIFORNIA

Fresno Air Terminal

In narrative form only

PINEDALE ONE DEPARTURE

Via direct Fresno VORTAC, then via (transition) or assigned route). Castle Transition—Via Fresno 273 and astle 150 radials to Castle VOR.

BOWLES ONE DEPARTURE

Via direct Fresno radio Beacon: then a 135 magnetic earing from the Fresno radio beacon to intercept the Los anos 084 radial at or above 3,000 feet; then via Los anos 084 radial to the Fresno 141 radial. Pixley Transion—Turn right via Fresno 141 and Bakersfield 322 adials to Bakersfield. Exeter Transition—Continue via os Banos 084 radial to intercept and proceed via Fresno 23 and Portersville 323 radials to Porterville.

Ontario Intl Airport

Effective February 4, 1965

Colton One Departure—Change name to read: Colton hree Departure. College One Departure—Change name o read: College Three Departure.

CONNECTICUT

Bradley Field, Windsor Locks

In narrative form only

AVON ONE DEPARTURE

Via Poughkeepsie VOR 089 radial to Poughkeepsie OR. Cross Madison VOR 348 radial at or below 5000'. ross Bridgeport VOR 357 radial at (as assigned by TC) then via (transition) or (assigned route). Huguenot Transition: via Poughkeepsie VOR direct Huguenot ORTAC.

HARTFORD ONE DEPARTURE

Via direct Hartford VOR. Hartford VOR 258 radial o Yale intersection. Cross Madison VOR 360 radial at r below 4000 feet. Cross Yale intersection (as assigned y ATC) then via (assigned route).

STAFFORD ONE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 100 radial to V16, V16 to Millis Intersection. Maintain at or below 8,000 feet for 3 minutes after departure; cross Putnam VORTAC at (as assigned by ATC) then via (assigned route).

MADISON ONE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via 360° radial Hartford VOR to Hartford VOR; then direct Madison VOR; then V475 to Deer Park VOR. Maintain at or below 8,000 feet for 3 minutes after departure; cross Madison VOR at (as assigned by ATC) then via (assigned route).

Miami Intl Airport

Effective Jan. 7, 1965

MELBOURNE TWO DEPARTURE

Via the Biscayne Bay VOR 345 radial and the Vero Beach VORTAC 178 radial to the Vero Beach VORTAC. Then via (transtion) or (assigned) route. Snapper Transition—Via the Vero Beach VORTAC 043 radial to the Barracuda Intersection.

Concurrently cancel the Melbourne One Departure.

NEW YORK

Hancock Airport, Syracuse

In narrative form only

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route). Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). Florence Transition—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. Syracuse Transition—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. Pulaski Transition—Via Georgetown VOR 352 radial and

V29 to Pulaski Intersection. Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

John F. Kennedy Intl Airport, New York

Effective Jan. 7, 1965

KINGSTON ONE DEPARTURE

Via vector to Kingston VOR 160 radial. Kingston VOR 160 radial to Kingston VOR. Cross LaGuardia VOR 135 radial at or below 4000 feet. Cross LaGuardia VOR 092 radial at or above 5000 feet. Cross Kennedy VORTAC 054 radial at or above 8000 feet. Then via (transition) or (assigned route). Dutchess Transition—Via Kingston VOR direct Poughkeepsie VOR.

Concurrently cancel Clermont Two Departure.

OHIO

Youngstown Mun Arpt.

In narrative form only

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

•PENNSYLVANIA

Philadelphia Int'l Airport

Effective January 7, 1965

OXFORD TWO DEPARTURE

Via vector to New Castle Vortac. New Castle Vortac 305 radial and V3 to Norris intersection. Cross West Chester Vortac 155 radial at 6000 feet. Then via (assigned route).

Concurrently cancel Oxford One Departure.

RHODE ISLAND

T. F. Green Arpt., Providence

In narrative form only

WARWICK ONE DEPARTURE

Takeoff Rnwy 5L/R-34—turn right to 160 heading as soon as practicable after leaving 500'. Climb on 160 heading to intercept Quonset Pt. VOR 038 radial. Takeoff Rnwy 16—Maintain rnwy heading to intercept Quonset Pt. VOR 038 radial. Takeoff Rnrwy 23L/R—Turn left to 090 heading as soon as practicable after leaving 500'. Climb on 090 heading to intercept Quonset Pt. VOR 038 radial. Radar vector to Providence VOR 132 radial to Quonset Pt. VOR 038 radial to Quonset Pt. VOR thence via Quonset Pt. VOR 218 radial to V-46. Cross Quonset Pt. VOR at 5000' or below. Cross Norwich VORTAC 124 radial at 7000'. Cross Hampton VORTAC 062 radial (as assigned by ATC) then via (assigned route).

STERLING TWO DEPARTURE

Takeoff Runway 34-5L/R—turn left to 250 heading as soon as practicable after leaving 500 feet. Climb on 250 heading to intercept Providence VOR 284 radial. Takeoff Runway 23L/R-16—turn right to 340 heading as soon as practicable after leaving 500 feet. Climb on 340 heading to intercept Providence VOR 284 radial. Radar vector to Providence VOR 284 radial thence via Providence VOR 284 radial to Sterling VHF intersection. Cross Sterling VHF intersection at / as assigned by ATC/then via/transition/or/assigned/route. Riverhead Transition via V16, V879.

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport ,Tucson

California

Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan nIt'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

CALIFORNIA

WILLIAMS "ILA" VORTAC SHUTDOWN

About Jan 19, VOR portion of VORTAC will be shutdown until aprxly Jan 29, for substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-195..	ILA VORTAC to Jewel INT	None		
V-195..	ILA VORTAC to Berryessa INT	None		
V-200..	ILA VORTAC to Lakeport INT	None		
V-200..	ILA VORTAC to Signal INT	None		
V-6N, V-209 V-264	Signal INT to RNO VOR	Signal Int to RNO RBn via 235 Brg from RNO RBn	12,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
Auburn Int	SAC VOR 020 rad and LTA VOR 231 rad	8,000
Signal Int	SAC VOR 020 rad and LTA VOR 281 rad	11,000
Yuba Int	SAC VOR 328 rad and MXW VOR 103 rad	4,000
Newcastle Int	SAC VOR 020 rad and MXW VOR 098 rad	7,000
Roseville Int	SAC VOR 020 rad and MCC VOR 069 rad	3,500
Grimes Int	SAC VOR 328 rad and MXW VOR 111 rad	4,000
Dalton Int	None	
Rough & Ready Int	None	
Berryessa Int	None	
Wheatland Int	None	
Fort Ross Int	None	
Calistoga Int	None	
Colma Int	None	
Geyerville Int	None	

ILLINOIS

CHICAGO, O'HARE "ORD" VORTAC SHUTDOWN

TACAN portion of VORTAC shutdown for channel change shutdown for freq change to 113.9mc. For substitute ro' ing shutdown use the following:

Low Altitude

Airways	Existing Airways	Su'
V-217, 191	ORD VOR to Taylor Int	Nor'
V-191	Taylor Int to Hor' Int	
V-172	ORD VO' In'	
V-53 1'		

CANCELLED

	tmpry ORD	2,500	17,5
	.a DPA VOR 280 .ad to DPA VOR thence via DPA 073 rad to tmpry ORD Int.		

.ing Points	Temporary Reporting Points	MRA
	JOT VORTAC 006 rad and OBK VORTAC 228 rad	2,2
VORTAC	Tmpry ORD Int DPA VOR 073 rad API VOR 035 rad OBK VORTAC 170 rad	2,5

IOWA

BURLINGTON "BRL" VOR SHUTDOWN

About Jan 25, VOR will be shut down until aprxly Jan 29 for mod. R substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V18-[illegible]	IRK VOR to BRL VOR	IRK VOR to Tmpry BRL Int via IRK VOR 058 rad	7,000	17,5

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-18-[illegible] 846	BDF VOR to BRL VOR	BDF VOR to Tmpry BRL Int via BDF VOR 244 rad	3,800	17,500
V-48...	PIA VOR to BRL VOR	PIA VOR to Tmpry BRL Int via PIA VOR 269 rad	3,000	17,500
V-63, 846	UIN VOR to BRL VOR	UIN VOR to Tmpry BRL Int UIN VOR 011 Rad	3,000	17,500
V-225	MLI VOR to BRL VOR	MLI VOR to Tmpry BRL Int via MLI VOR 195 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BRL VOR	Tmpry BRL Int PIA VOR 269 rad and MLI VOR 195 rad	3,000
Buffalo Int	MLI VOR 280 rad and CVA 225 rad	1,900
Canton Int	PIA VOR 231 rad and CAP VOR 330 rad	2,000
Iliza Int	MLI VOR 252 rad and CVA VOR 220 rad	1,900
Muscatine Int	None	
Nichols Int	IOW VOR 099 rad and CVA VOR 244 rad	2,500

IOWA CITY "IOWA" VOR SHUTDOWN

About Feb 4, VOR will be shut down until aprxly Feb 6 for maintenance. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
-6,8..	CVA VOR to IOW VOR	CVA VOR to Tmpry IOW Int via CVA VOR 225 rad	4,500	17,500
-6,8..	DSM VOR to IOW VOR	DSM VOR to Tmpry IOW Int via DSM VOR 079 rad	6,500	17,500
-30...	MLI VOR to IOW VOR	MLI VOR to Tmpry IOW Int via MLI VOR 280 rad	2,500	17,500
-216..	OTM VOR to IOW VOR	OTM VOR to Tmpry IOW Int via OTM VOR 042 rad	2,600	17,500
-88, 88	Bussey Int to IOW VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
IOW VOR	Tmpry IOW Int--MLI VOR 280 Rad and CID VOR 155 Rad	2,500
Fairfield Int	OTM VOR 071 rad and BRL VOR 294 rad	2,700
Gibson Int	CID VOR 082 rad and DBQ 222 rad	2,200
Moscow Int	MLI VOR 305 rad and CVA 255 rad	2,000
Nichols Int	BRL VOR 336 rad and MLI VOR 280 rad	2,000
Webster Int	OTM VOR 013 rad and DSM VOR 079 rad	4,200
Wellman Int	CID VOR 191 rad and DSM VOR 079 rad	4,900
Solon Int	CID VOR 093 rad and DBQ VOR 222 rad	2,500

KANSAS

EMPORIA "EMP" VOR SHUTDOWN

About Feb 1, VOR will be shut down until aprxly Feb 5 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-10...	HUT VOR to EMP VOR	HUT VOR to Tmpry EMP Int via HUT VOR 068 rad	7,000	17,500
V-10...	MKC VOR to EMP VOR	MKC VOR to Tmpry EMP Int via MKC VOR 223 rad	7,500	17,500
V-12...	ICT VOR to EMP VOR	ICT VOR to Tmpry EMP Int via ICT VOR 051 rad	7,000	17,500
V-10N.	TOP VOR to EMP VOR	TOP VOR to Tmpry EMP Int via TOP VOR 200 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
EMP VOR	Tmpry EMP Int—TOP VOR 200 rad and CNU VOR 318 rad	3,000
Cassoday Int	CNU VOR 285 rad and ICT VOR 051 rad	4,500
Dover Int	TOP VOR 227 rad and BUM VOR 293 rad	4900
Admire Int	SLN VOR 085 rad and TOP VOR 227 rad	4,500
Ft. Riley Int	SLN VOR 070 rad and PWE VOR 188 rad	5,000
Maple Hill Int	TOP VOR 252 rad and PWE VOR 162 rad	4,000
Pomona Int	TOP VOR 172 rad and MKC VOR 223 rad	3,100
Wilsey Int	HUT VOR 052 rad and ICT VOR 027 rad	4,500

MISSOURI

BUTLER "BUM" VOR SHUTDOWN

About Jan 18, VOR will be shut down until aprxly Jan 22 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-13, 71	MKC VOR to BUM VOR	MKC VOR to Tmpry BUM Int via MKC VOR 167 rad	7,000	17,500
V-13...	EOS VOR to BUM VOR	EOS VOR to Tmpry BUM Int via EOS VOR 351 rad	7,500	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-13E	MKC VOR to BUM VOR	MKC VOR to Tmpry BUM Int via MKC VOR 149 rad to BSP VOR 185 rad, thence via BSP VOR 185 rad	7,000	17,500
V-71	SGF VOR to BUM VOR	SGF VOR to Tmpry BUM Int via SGF VOR 309 rad	7,000	17,500
V-161	BSP VOR to BUM VOR	BSP VOR to Tmpry BUM Int via BSP VOR 185 rad	7,000	17,500
V-161	OSW VOR to BUM VOR	OSW VOR to Tmpry Int via OSW VOR 019 rad	7,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BUM VOR	Tmpry BUM Int BSP VOR 185 rad and SGF VOR 309 rad	7,000
Holden Int	BSP VOR 148 rad and MHL VOR 227 rad	2,400
Nevada Int	SGF VOR 294 rad and EOS VOR 351 rad	4,000

High Altitude

Airways	Existing Routes	Substitute Routes	MEA	MAA
J-25, 87	TUL VORTAC to BUM VOR	TUL VORTAC to Tmpry BUM Int via TUL VORTAC 017 rad	FL 180	FL 450
J-25, 87	DSM VORTAC to BUM VOR	DSM VORTAC to Tmpry BUM Int via DSM VORTAC 192 rad and MKC VORTAC 010 rad to MKC VORTAC thence via MKC VORTAC 167 rad	FL 180	FL 450

Existing Reporting Points	Temporary Reporting Points	MRA
BUM VOR	Tmpry BUM Int—TUL VORTAC 017 rad and MKC VORTAC 167 rad and SGF VORTAC 309 rad	FL 180

NEW YORK

BUFFALO "BUF" VORTAC SHUTDOWN

VORTAC freq interference is affecting the following jet routes based on BUF VORTAC until the frequency of BUF VORTAC is changed. For substitute route structure use the following:

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J16/94	BUF VORTAC to ALB VORTAC	BUF VORTAC to SYR VORTAC via BUF VORTAC 090 rad and SYR VORTAC 274 rad thence to ALB VORTAC via SYR VORTAC 115 rad and ALB VORTAC 294 rad	24,000	41,000

Changeover Point—38 NM E of BUF VORTAC—78 NM W of SYR VORTAC

Airways	Existing Airways	Substitute Routes	MEA	MAA
J61/ 100	BUF VORTAC to PSB VORTAC	BUF VORTAC to PSB VORTAC via BUF VORTAC 354 rad	24,000	41,000

Changeover Point—29 NM S of BUF VORTAC—104 NM N of PSB VORTAC

Airways	Existing Airways	Substitute Routes	MEA	MAA
J86	BUF VORTAC to HUO VORTAC	BUF VORTAC to HUO VORTAC via BUF VORTAC 123 rad and HUO VORTAC 309 rad	24,000	41,000

Changeover Point—37 NM SE of BUF VORTAC—162 NM NW of HUO VORTAC

About Feb 4, VORTAC will be shut down until aprxly Feb 15 for freq channel change to 116.5 mc/111. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Airways	MRA	MEA
V-14N	Brocton Int to BUF VORTAC	None		
V-14	DKK VOR to BUF VORTAC	DKK VOR to BUF Int via VOR 053 rad	3,000	17,50
V-14, 84, 252	GEE VORTAC to BUF VORTAC	GEE VORTAC to BUF Int via GEE VORTAC 287 rad	3,300	17,50
V-115	JHW VOR to BUF VORTAC	JHW VOR to BUF Int via JHW VOR 032° rad	3,700	17,5(
V-33	BFD VOR to BUF VORTAC	BFD VOR to BUF Int via VOR 006° rad BFD VOR 006° rad	5,000	17,5(
V-164	ELZ VOR to BUF VORTAC	ELZ VOR to BUF Int via ELZ VOR 339 rad	5,000	17,5(
V-38	Burns Int to BUF VORTAC	via BUF RBn 131° brg to BUF RBn	3,500	17,5(
V-38	Niagara Int. to BUF VORTAC	via BUF RBn 324 brg to BUF RBn	2,300	17,5(
V-2	ROC VOR to BUF VORTAC	ROC VOR to BUF Int via ROC VOR 264 rad	5,000	17,5(
V-142	Grant Int. to BUF VORTAC	via BUF RBn 051° brg to BUF RBn	2,300	17,5(
V-36S	Grimsby Int to BUF VORTAC	via BUF RBn 302 brg to BUF RBn	2,300	17,5(

Existing Reporting Points	Temporary Reporting Points	MR
BUF VORTAC	Tmpry BUF Int: DKK VOR 053 rad GEE VORTAC 287 Rad JHW VOR 032 rad	3,0
Niagara Int	DKK VOR 010 rad and YZ VOR 148 rad	

Continued on next pa

Existing Reporting Points	Temporary Reporting Points	MRA
Lewiston Int	BUF RBn 324 brg and DKK VOR 020 radial	3,000
Grant Int	BUF RBn 051 brg and ROC VOR 298 rad	2,300
Dale Int	BUF RBn 131 brg and ROC VOR 241 rad	3,500
Langford Int	JHW VOR 032 rad and DKK VOR 080 rad	3,700
Crystal Beach Int	None	
Grimsby Int	None	
Thorold Int	BUF RBn 302 brg and DKK VOR 006 rad	2,500

Jet Routes

Airways	Existing Routes	Substitute Routes	MRA	MAA
J-86...	KG VOR to HUO VOR	KG 150 rad and BGM 303 rad to BGM thence via BGM 132 rad and HUO 314 rad to HUO	FL 180	FL 450
J-61, J-100	BUF VOR to PSB VOR	BUF Int to PSB VORTAC via PSB 354 rad	FL 180	FL 450
J-16, J-94	XU VOR to ALB VOR	XU 096 rad and GGT 286 rad to GGT thence via GGT 104 rad and ALB 283 rad to ALB	FL 180	FL 450
J-94..	BUF VOR to ALB VOR	BUF Int thence via GGT 286 rad to GGT thence via GGT 104 rad and ALB 283 rad to ALB	FL 180	FL 450

Existing Reporting Points	Temporary Reporting Points	MRA
BUF VORTAC	Tmpry BUF Int: BFD 006 rad and XU 098 rad	FL 180

PENNSYLVANIA

CLARION "CIP" VOR SHUTDOWN

About Jan 7, VOR will be shut down until aprxly Jan 18 for freq change to 12.9 mc. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-119, J-121	FTZ VOR to IRL VORTAC	FTZ 233° rad to IRL 048 rad to IRL	4,000	17,000
J-804..	CIP VOR to IRL VORTAC	FTZ 233 rad to IRL 048 rad to IRL	4,000	17,000
J-6....	PSB VORTAC to YNG VOR	PSB 289 rad to YNG 106 rad to YNG	4,000	17,000
J-228..	CIP to EWC VORTAC	Tmpry CIP Int EWC 065 rad to EWC	3,500	17,000
J-30...	PSB VORTAC to ACO VORTAC	PSB 289 rad to ACO 092 rad to ACO	5,000	17,000

Existing Reporting Points	Temporary Reporting Points	MRA
CIP VOR	PSB 289 rad and TDT 187° rad	4,000
Wesley Int	EWC 039 rad and YNG 106 rad	2,800

ELLWOOD CITY "EWC" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shut down until aprxly Feb 16, 1965 for freq/channel change to 115.8 mc/105. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	AGC VOR-IRL VOR-EWC VOR-ERI VOR	IRL 008 rad to EWC Int..	3,000	17,000
		EWC Int to ERI VOR via ERI 182 rad (MRA ERI at EWC Int.)	8,000	17,000
V-116..	TDT VOR-EWC VOR	TDT 220 rad to EWC Int..	4,000	17,000
V-228..	CIP VOR-EWC VOR.	CIP 247 rad to EWC Int..	3,500	17,000
V-276..	BSV VOR-EWC VOR-TON VOR	BSV 088 rad to TON 281 rad ton TON VOR	4,000	17,000
V-297..	ACO VOR to EWC VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
EWC VOR	Tmpry EWC Int-IRL 008 rad & CIP 247° rad	3,000
Palestine Int	BSV 088 rad & IRL 331 rad	3,000
Midland Int	IRL 331 rad & HLG 020 rad	3,000
Volant Int	ERI 182 rad & CIP 257 rad	7,000
Mercer Int	ERI 182 rad & YNG 106 rad	7,000
Wesley Int	TDT 220 rad & CIP 288 rad	4,000

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-84...	FWA VORTAC to ARD VORTAC	FWA VOR to BSV VOR via FWA 091 rad and BSV 282 rad, thence BSV VOR to TON VOR via BSV 093 rad and TON 278 rad, thence TON VOR to ARD VOR via TON 102 rad and ARD 294 rad	FL 240/410	

SLATE RUN "SLT" VOR SHUTDOWN

About Jan 7, VOR will be shut down until aprxly Jan 18 for freq change to 113.9 mc. For sutbitute routestructure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-881..	ELZ VOR to PSB VOR	ELZ VOR 186 rad to SLT Int and PSB VOR 008 rad to PSB	4,500	17,500

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-188..	IPT VOR to TDT VOR	None		
V-178.. V-818	BFD VOR to SEG VOR	None		

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
SLT VOR	Tmpry SLT Int: BFD 126 rad and PSB 008 rad	4,500
Swissdale Int	IPT VOR 255 rad and SEG VOR 320 rad.	4,000

TYRONE "TON" SHUTDOWN

About Jan 7, VORTAC will be shut down until aprxly Jan 17 for freq channel change to 114.9 mc/96. For substitute routestructure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–276	EWC VOR-TON VOR RAV VOR	EWC-065 rad to PSB 289 rad to PSB thence via PSB 105 rad and RAV 303 to RAV	4,000 MEA as published	17,000
V–35	JST VOR-TON VOR-PSB VOR	JST 049 rad to PSB 242 to PSB VOR	4,500	17,000
V–68	CLN VOR-TON VOR-PSB VOR	CLN 066 rad to PSB 242 rad to PSB VOR	4,500	17,000

Existing Reporting Points	Temporary Reporting Points	MRA
TON VOR	None	
Huntingdon Int	JST 073 and PSB 193	4,500

WEST CHESTER "ESR" VOR SHUTDOWN

About Jan 7, VOR will be shutdown until aprxly Jan 18 for freq/channel change to 113.1mc 79. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–3/ 276	SBJ VORTAC to EMI VORTC	None		
V–12	HAR VORTAC to ESR VORTAC	HAR VORTAC 111 rad to int LRP VOR 291 rad LRP VOR, LRP VOR 121 rad to tmpry ESR Int	2,700	17,500
V–12	ESR VORTAC to Echelon Int.	None		
V–29	PTW VOR to ESR VORTAC	PTW VOR V–29 to tmpry ESR Int.	2,400	17,500
V–29	ESR VORTAC to EWT VORTAC	Tmpry ESR Int V–29 to EWT VORTAC	2,000	17,500
V–170/ 238	Reinholds Int to ESR VORTAC	None		
V–271/ 238	ESR VORTAC to OOD VORTAC	None		

NOTE: V–147 unusable from tmpry Ardmore int to int V–12

Existing Reporting Points	Temporary Reporting Points	MRA
ESR VORTAC	Tmpry ESR Int PTW VOR 205 rad and LRP VOR 121 rad	2,000
Hoopes Int	None	
Warrington Int	SBJ VORTAC 237 rad and PTW VOR 095 rad	2,000
Norris Int	None	
Gap Int	None	
Coatesville Int	None	
Elkton Int	None	
Bainbridge Int	None	
Honeybrook Int	None	
Ardmore Int	ABE VORTAC 183 rad and PTW VOR 152 rad	2,500
Darby Int	OOD VOR 335 rad and PHL ILS Lczr	1,800
Fraser Int	PTW VOR 167 rad and SJB VOR-TAC 237 rad	3,000
Echelon Int	OOD VOR 052 rad and MIV VOR 360 rad	2,000
Plowville Int	PTW VOR 284 rad and LRP VOR 074 rad	5,000

TEXAS

LAREDO "LRD" VOR SHUTDOWN

About Feb 3, VORTAC will be shut down until aprxly Feb 8, 1965 for freq channel change to 117.4 mc/121. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Route	MEA	MAA
V–17	LRD VOR to COT VOR	Tmpry LRD Int to COT VOR via COT 185 rad	6,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
LRD VORTAC	Tmpry LRD Int-COT 185 rad aid ALI 250 rad	6,000

High Altitude

Airways	Existing Airways	Substitute Route	MEA	MAA
V–21	LRD VOR to SAT VOR	Tmpry LRD Int to SAT via SAT 198 rad	24,000	45,000
V–22	LRD VOR to CRP VOR	Tmpry LRD Int to CRP VOR via CRP 248 rad	24,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
LRD VORTAC	Tmpry LRD Int-SAT 193 rad and CRP 248 rad.	24,000

McALLEN "MFE" VOR SHUTDOWN

About Jan 11, VOR will be shut down until aprxly Jan 15, 1965 for antenna replacement. For substitute route structure during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Route	MEA	MAA
V–68	MFE VOR to HRL VOR	Tmpry MFE Int to HRL VOR via HRL 245 rad	2,500	17,500

Existing Reporting Points	Substitute Reporting Points	MRA
MFE VOR	Tmpry MFE Int-HRL 245R/ BRO 278 rad	2,500
Edinburg Int	None	
Weslaco Intffl	None	
Raymondville Int	None	
Armstrong VHF Int	None (Armstrong DME Int satisfactory)	

VIRGINIA

PULASKI "PSK" VOR SHUTDOWN

VORTAC will be shut down for freq/channel change to 115.9mc/106. For substitute route structure during shutdown, use flwg:

Low Altitude Airways

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-37...	FML VOR to PSK VOR	Unusable		
	PSK VOR to EKN VOR	020 Brg from PK LFR to intercept 199 rad EKN to EKN	8,000	17,500
J-16...	HMV VOR to ROA VOR	HMV 062 rad and ROA 248 rad	7,000	17,500
J-16N..	BLA VOR to PSK VOR	Unusable		
J-37W..	HKY VOR to PSK VOR	Unusable		
J-46...	BLF VOR to GSO VOR	BLF 123 rad to intercept 303 Brg to PK LFR to PSK; 148 Brg from PK LFR to intercept GSO 337 rad to GSO	6,000	17,500
J-80...	BKW VOR to PSK VOR	BKW 157 rad to tmpry PSK Int	6,000	17,500
J-80..	PSK VOR to SBV VOR	098 Brg from PK LFR to intercept SBV 302 rad to SBV	5,000	17,500

Existing Reporting Point	Temporary Reporting Point	MRA
PSK VORTAC	ROA 248 rad and BKW 157 rad	6,000 17,500

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J-93...	AGC to SPA	195 rad AGC to intercept 013 brg to PK LFR to thence 206 brg from PK LFR to intercept PSK; 026 rad SPA to SPA	FL180	FL450
	CRW to RDU	149 rad CRW to intercept 313 rad RDU to RDU	FL180	FL450
J-92...	TYS to GVE	064 rad TYS to intercept 252 rad GVE to GVE	FL180	FL450

WEST VIRGINIA

BECKLEY "BKW" VOR SHUTDOWN

About Jan 7, VOR will be shut down until aprxly Jan 12 for freq change to 117.7 mc. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-280..	CRW VORTAC TO BKW VOR	CRW VORTAC to BKW Tmpry Int via CRW VORTAC 141 rad	6,000	17,500
J-280..	BKW VOR to Rock Camp Int	None		
V-839-80	PSK VOR to BKW VOR	PSK VOR to BKW Tmpry Int via PSK VOR 338 rad	6,000	17,500
V-839-80	BKW VOR to PKB VOR	BKW Tmpry Int to PKB VOR via PKB VOR 176 rad	7,500	17,500
V-478..	ECB VOR to BKW VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
BKW VOR	BKW Tmpry Int—	
	PSK VOR 338 rad	5,500
	RNL VOR 235 rad	5,500
	CRW VORTAC 141 rad	5,500
	PKB VOR 176 rad	7,500

MARTINSBURG "MRB" VOR SHUTDOWN

About Jan 7, VORTAC will be shut down until aprxly Jan 18 for freq/channel change to 112.1mc/58. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-881..	THS VOR to MRB VOR	THS VOR to MRB Int. via THS VOR 179 rad	4,000	17,500
V-8....	Flintstone Int to MRB VOR	Flintstone Int. to MRB LFR via HRN VOR 315 rad	7,000	17,500
V-8....	MRB VOR to DCA VOR	Int of HRN VOR 022 rad and DCA VOR 328 rad via MRB LFR 114 brg thence DCA VOR via via DCA VOR 328 rad	3,000	17,500
V-44...	MGW VOR to MRB VOR	MGW VOR to MRB Int via MGW 101 rad	13,500	17,500
V-44...	MRB VOR to Lisbon Int	MRB Int to Lisbon Int via BAL VOR 291 rad	4,000	17,500
V-186..	ESL VOR to MRB VOR	ESL VOR to MRB Int via via ESL VOR 086 rad	4,000	17,500
V-186..	MRB VOR to EMI VOR	MRB Int to EMI VOR via EMI VOR 268 rad	4,000	17,500
V-251..	FRR VOR to MRB VOR	FRR VOR to Int of FRR VOR 055 rad and EMI VOR 305 rad via FRR VOR 055 rad	3,000	17,500
V-251..	MRB VOR to Hanover Int	Int of FRR VOR 055 rad and EMI VOR 305 rad to Hanover Int viaLRP VOR 247 rad	5,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
MRB VOR	MRB LFR	4,000
MRB VOR	BAL VOR 291 rad and FRR VOR 049 rad	4,000
MRB VOR	MGW VOR 101 rad and FRR VOR 049 rad	13,500
MRB VOR	FRR VOR 049 rad and THS VOR 179 rad	4,000
Flintstone Int	Flintstone Int HRN VOR VOR 315 rad and GRV VOR 092 rad	7,000

VISUAL NAVIGATION CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

ABERDEEN

38th Edition, August 20, 1964

Delete Madison arpt 44°01'N, 97°03'W. Delete Nicholas arpt 45°37'N, 101°30'W. Add obstn 2029' MSL 43°56'59''N, 96°54'36''. Add obstn 2040' MSL 44°23'-02''N, 97°00'37''W. In northern border change Bismarck VOR freq 115.7 to 116.5.

ALBANY

53rd Edition, July 23, 1964

Delete Dades arpt 43°28'N, 75°12'W. Delete East Greenbush arpt 42°34'N, 73°43'W. Add V196 airway Utica to Plattsburgh via Utica 016°T & Plattsburgh 236°T. Add obstn 1344' MSL 43°33'41''N, 72°17'14''W. Add obstn 2161' MSL 43°12'29''N, 72°09'40''W. Correct Schenectady Co ctl twr freq 321 to 321.1. Change Chester VOR freq from 108.6 to 117.3. Change Utica VOR freq from 112.0 to 113.9. Change Watertown VOR freq from 110.6 to 109.8. Change Binghamton VORTAC freq from 114.1 ch 88 to 114.3 ch 90. Change Griffis (AF) VOR freq 111.4 to 112.5. In southern border change Clermont VOR freq 114.3 to 117.6. Change De Lancey VOR freq. 109.6 to 112.1. Add circular restricted area R–5207 with a radius of 1,350' centered at 42°46'59''N, 76°53'06''W. Add obstn 994' MSL 43°33'41'' N, 72°17'14''W. Add Becksgrove RBn freq 329, ident BKG class MHW 43°13'20''N, 75°28'58''W. In northern border change Massen VOR freq 112.1 to 114.1.

ALBUQUERQUE

53rd Edition, August 20, 1964

Add obstn 4100' MSL 34°31'00''N, 102°17'00''W. Add obstn 5012' MSL 35°08'03''N, 103°41'52''W. Delete Bacaville VOR 34°35'N, 106°50'W. Delete Dalhart RBn 36°01'N, 102°03'W. In eastern border correct Borger VOR ident BDG to BGD.

AROOSTOOK

41st Edition, April 30, 1964

Delete Green arpt 46°02'N, 68°16'W. Realign Red 9 airway direct from Montmorency RBn to Bagotville RBn. Add obstn 740' MSL 46°09'00''N, 70°12'17''W. Add obstn 525' MSL 46°10'45''N, 71°20'00''W. Add obstn 625' MSL 46°52'50''N, 71°19'35''W. Add obstn 349 MSL 47°00'00''N, 70°31'00''W. Add obstn 433' MSL 47°16'40''N, 70°12'00''W. Add obstn 593' MSL 46°-36'05''N, 65°55'50''W. Add Burtts RBn freq 350, ident LI, class MHW 46°03'52''N, 66°52'13''W. Add Charlo (Pvt) RBn freq 203, ident CL, class HW 47°59'N 66°20'W. Extend Loring AFB Military Climb Corridor R–3902 1 mi S & 6 mi N. Realign Fredericton LFR W leg from 103°M to 096°M. Delete Presque Isle LFR 46°44'N, 68°04'W. Add Quebec M.V. 19°W VOR freq 112.8, ident QB class BVOR 46°42'20''N, 71°37'36''W Realign airway V 318 direct from Houlton to Quebec

AUSTIN

58th Edition, November 12, 1964

Delete Allison Ranch arpt 30°44'N, 102°02'W.

BEAUMONT

52nd Edition, September 17, 1964

Delete Saltzman arpt 29°57'N, 92°27'W. Add obstn 385' MSL 30°08'19''N, 94°38'26''W. Add obstn 351 MSL 30°26'18''N, 93°47'16''W. Add obstn 329' MSL 30°35'47''N, 91°31'47'W. Add obstn 598' MSL 30°39'-57''N, 92°08'14''W. Add obstn 347' MSL 31°03'33''N 92°08'38''W. Add obstn 525' MSL 31°33'17''N, 92°-34'04''W. Add obstn 440' MSL 30°01'55''N, 94°59'37''W Add 2 obstns 467' MSL 29°59'20''N, 90°27'45''W 30°00'35''N, 90°27'22''W. Change obstn 1044' MSL to 1244' MSL 30°02'38''N, 92°22'17''W. Delete Lake Charles ctl twr freq 109.1. Delete Esler RBn 31°19'N 92°14'W. Add Fort Polk, La. ctl zone 5 mi radius with extsns 8 mi SE & 8 mi NW of RBn. Add Navasota VOR freq 109.6, ident TNV, class BVOR, M.V 8°E 30°17'20''N 96°03'30''W. Add obstn. 400' MSL 30°45'44"N, 91°20'30" W.

BELLINGHAM

50th Edtion, December 10, 1964

No hazardous changes.

BIRMINGHAM
58th Edition, October 15, 1964

Delete River arpt 33°49'N, 88°19'W. Delete Lake Purdy Arpt 33°29'N, 86°37'W. Change Maxwell (AF) VOR freq. 116.0 to 110.2. Add obstn 1026' MSL 32°41'57'' N, 85°40'54''W. Add obstn 600' MSL 32°27'57''N, 87°07'30''W. Delete Montezuma arpt 32°18'N, 84°01'W. Delete Cobb Airpark arpt 33°52'N, 84°35'W.

BOISE
40th Edition, May 28, 1964

Delete Dewitt Place arpt 43°28'N, 120°02'W. Delete Payette FM 44°09'N, 116°55'. Delete Mountain Home FM 43°12'N, 115°42'W.

BOSTON
54th Edition, September 17, 1964

Change Kennebunk VOR freq 117.4 to 117.1. Revise ctl area 1141 Boston, Mass. RBn to Yarmouth, Nova Scotia, Canada, LFR. Extend W-104 aprxly 5 mi NW & 8 mi. E. Delete Braintree arpt 42°12'N, 71°02'W.

BURLINGTON
43rd Edition, November 12, 1964

Extend V196 airway from Utica to Plattsburgh via Utica 016° & Plattsburgh 236°T. Extend V447 airway from Montpelier, Vt. to Sherbrook, P.Q. Canada via the nt of Montpelier 020°T & Sherbrook 217°T. Montreal ctl area extended E & NE to join Quebec ctl area. Add obstn 610' MSL 44°35'09''N, 75°09'30''W. Add obstn 459' MSL 44°05'40''N, 77°23'00''W. Change Massena VOR freq 112.1 to 114.1 Delete airway beacon code— —, 45°05'45''N, 73°35'10''W.

BUTTE
42nd Edition, July 23, 1964

Delete Pretty Prairie (USFS) arpt 47°35'N, 112°55'W. Delete Seeley Lake (USFS) arpt 47°14'N, 113°34'W. Change Helena VOR freq 117.9 to 117.7. Add Lewistown RBn freq 353, ident LWT, class H, 47°04'06''N, 109°-12'15''W.

CASPER
48th Edition, October 15, 1964

Delete airway beacon site #14, code . . . . . 42°50'00''N, 105°58'00''W. Delete airway beacon site #18 43°07'50''N, 106°20'20''W. Delete Sadler arpt 43°24'N, 104°54'W. Delete Cow Creek arpt 43°15'N, 104°41'W. Delete Thompson Ranch arpt 43°10'N, 104°36'W.

CHARLOTTE SECTIONAL CHART
55th Edition, October 15, 1964

Add obstn 861' MSL 35°07'24''N, 79°22'54''W. Add obstn 1057' MSL 35°18'36''N, 80°22'31''W. Add obstn 1250' MSL 34°03'00''N, 78°04'56''W. Twr comsnd at Owens arpt freqs 126.2 241.0. Change Florence VOR freq 115.5 to VORTAC freq 115.2 ch 99. Add Tocca, Ga. transition area 5 mi W & 8 mi E of the 360°T radial of Tocca, Ga. VOR extending from the VOR to 12 mi N. Add obstn 913' MSL 35°21'24''N, 79°46'42''W. Delete Clinton arpt 35°01'N, 78°19'W. Delete Fayetteville RBn 34°56'N, 78°56'W.

CHATTANOOGA
54th Edition, August 20, 1964

Delete Humphreys Co arpt 36°05'N, 87°51'W. Delete Memphis Flying Service arpt 35°03'N, 89°54'W. Delete Mountain View arpt 34°47'N, 84°59'W. Add obstn 697' MSL 34°57'25''N, 89°46'45''W. Change Gadsden VOR freq 112.0 to 112.3 Add obstn 827' MSL 34°21'40''N, 88°57'44''W. Delete Nashville ctl twr. freq 278. Delete McGhee-Tyson ctl twr freq 278. Extend R-2104 approx 3 miles S. Add obstn 1250' M 35°13'10''N, 87°19'43''W.

CHEYENNE
51st Edition, December 10, 1964

No hazardous changes.

CHICAGO
59th Edition, December 10, 1964

Change Ft Wayne VORTAC freq 113.9 Ch 86 to 117.8 Ch 125. Delete Davis arpt 40°29'N, 88°57'W. Change Chicago O'Hare VORTAC freq 111.6 Ch 53 to 113.9 Ch. 86. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add Benton Harbor ctl zone 5 mi radius of Ross arpt with 8 mi extensions E & W.

CINCINNATI
58th Edition, August 20, 1964

Delete Howell Bros arpt 39°36'N, 85°26'W. Delete Madison arpt 38°49'N, 85°26'W. Delete Ohio Oil Co arpt 39°01'N, 87°37'W. Add obstn 996' MSL 39°41'-42''N, 86°23'07''W. Add obstn 1549 'MSL 39°14'36''N, 87°23'07''W. Change Greater Cincinnati ctl twr freq 257.8 to 240.9. Change Belleview RBn ident BVX to BL. Change Louisville RBn name to Standiford. Change Decatur VOR freq 109.4 to 110.6. Change Patterson VOR freq 117.1 to 111.6. Add obstn 920' MSL 38°42'56''N, 89°57'26''W. Add obstn 1009' MSL 39°47'28''N, 88°-19'37''W. Add obstn 1260' MSL 40°04'42''N, 84°37'-51''W. Add obstn 895' MSL 39°31'03''N, 84°24'32''W. Add obstn 1237' MSL 40°06'51''N, 85°22'02''W. Add obstn 853' MSL 38°14'40''N, 89°24'58''W. In western border change Quincy VORTAC freq 115.6 ch 103 to 113.1 Ch 78. Change Lexington VORTAC freq 115.9 Ch 106 to 117.0 Ch 117. Add obstn 603' MSL 37°52'11''N, 89°49'44'' W. Delete Lambert-St. Louis ctl twr freq 278. Add obstn 1117' MSL 39°42'30''N, 90°16'07''W. Add obstn 988' MSL 39°31'23''N, 88°04'18''W. Change obstn elevation 914' MSL to 931' MSL 39°36'20''N, 87°43'32''W. Add obstn 1150' MSL 40°05'31''N, 85°39'12''W. Delete Lakeside arpt beacon 38°42'N, 90°04'W.

CLEVELAND
59th Edition, November 12, 1964.

Delete Wheeling RBn 40°06'N, 80°11'W. Delete Tanger arpt 40°22'N, 83°47'W. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90.

CORPUS CHRISTI
53rd Edition, July 23, 1964

Realign V68 airway direct from Corpus Christi, Tex. to Harlingen, Tex. Realign V163 airway from Brownsville, Tex. to Corpus Christi, Tex. via int of Brownsville 347°T & Corpus Christi 191°T. Revise R-6301 to clear V163. Delete Elliot arpt 26°16'N, 97°44'W. Add obstn 627' MSL 27°45'12''N, 98°08'21''W. Change Laredo AFB ctl twr freq 118.5 to 126.2. Revoke Alice & Corpus Christi ctl area. Designate Corpus Christi transition area by shifting former ctl airspace 5 to 20 mi E. Add NAS CORPUS CHRISTI ctl zone 5 mi radius of airport with extsns SE & SW. Add control zone extensions SE & W of Alice arpt 27°44'N, 98°01'W. Add NAAS Kingsville (North) ctl zone 5 mi radius of arpt with extensions SE, S & NW. Delete Arkansas County arpt beacon 27°53'N, 97°09'W. Change obstn elevation 469' MSL to 480' MSL 27°16'41'' N, 98°09'20''W.

DALLAS
59th Edition, July 23, 1964

Delete Block Ranch arpt 32°19'N, 97°14'W. Delete Diamond M Ranch arpt 32°41'N, 101°05'W. Add V62 airway from Lubbock to Abilene via the Lubbock 125°T & Abilene 306°T. Add obstn 1780' MSL 33°36'35''N, 99°36'46''W. Add obstn 3570' MSL 33°53'25''N, 101°-51'08''W. Change Abilene VORTAC freq 112.6 ch 73 to 113.7 ch 84. Delete Rockwood FM 32°46'N, 97°22'W. Delete Dobbins arpt 33°41'N, 96°11'W. In Western border change Hobbs VOR freq 116.6 to 111.0 Add obstn 700' MSL 32°04'27''N, 96°27'15''W. Add obstn 2714' MSL 32°17'05''N, 99°38'38''W. Add obstn 937' MSL 33°09'45'' N, 97°06'18''W. Add obstn 878' MSL 32°55'32''N, 96°24'16''W. Add obstn 932' MSL 33°08'03''N, 96°07'35'' W. Add obstn 2349' MSL 33°34'43''N, 96°57'12''W.

DEL RIO
40th Edition, November 12, 1964

No hazardous changes.

DENVER
53rd Edition, December 10, 1964

No hazardous changes.

DES MOINES
52nd Edition, November 12, 1964

Add obstn 1398' MSL 40°13'29''N, 93°07'50''W. Add obstn 1210' MSL 40°05'06''N, 93°37'31''W. Add obstn 1353' MSL 41°59'18''N, 92°15'42''W.

DETROIT
58th Edition, January 7, 1965

Change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90.

DOUGLAS
42nd Edition, October 15, 1964

Delete Punta Penasco RBn freq 1688.

DUBUQUE
48th Edition, September 17, 1964

Add obstn 1240' MSL 42°23'36''N, 92°19'30''W. Add obstn 1480' MSL 43°19'25''N, 90°42'16''W. Add obstn 2449' MSL 44°05'28''N, 91°20'15''W. Change Dubuque VOR freq 116.1 to 109.4. Change Polo VORTAC freq 113.8 Ch 85 to 117.1 Ch 118. Add obstn 1217' MSL 42°11'10'' N, 91°58'40''W. Change obstn elevation 1531' MSL to 1551' MSL 43°10'06''N, 93°07'30''W. Delete Rochester ctl twr freq 278. Add obstn 1386' MSL 43°57'50''N, 90°51'28'' W.

DULUTH
38th Edition, July 23, 1964

Delete Moberg SPB 47°29'N, 94°52'W. Add obstn 1735' MSL 47°53'25''N, 91°52'04''W. Revise Chisholm-Hibbing ctl zone with extsn 8 mi SW. Revise Chisholm-Hibbing transition area with 3 extsns. 13 mi. wide, 18 mi. NE, 12 mi. SW & 18 mi NW of Chisholm-Hibbing arpt. Relocate Duluth RBn 46°50'45''N, 92°21'17''W. Delete Pine Haven seaplane base 46°43'N, 93°19'W. Add obstn 1835' MSL 46°17'08''N, 96°02'06''W. Add transition area 4 nmi each side of a direct radial between Grand Rapids VOR & Hibbing VOR. Delete Duluth International ctl twr freq 278. Realign airway Blue 9 to new Duluth RBn location 46°50'45''N, 92°21'17''W. Add control zone extension W of Duluth International arpt 46°50'N 92°11'W.

ELKO
43rd Edition, December 10, 1964

No hazardous changes.

EL PASO
52nd Edition, August 20, 1964

Delete McCombs No. 2 arpt 31°58'N, 104°41'W. Increase obstn 5448' MSL to 5463' MSL 31°38'42''N 105°44'52''W. Delete Allison Ranch arpt 30°44'N 102°02'W. Delete Columbus LFR 31°49'N, 107°35'W. Delete airway beacon site #39 31°49'N, 106°47'W. Change obstn elevation 5448' MSL to 5463' MSL 31°38'42''N 105°44'52''W. Delete Laguna De Guzman SPB 31°18'N 107°31'W. Delete Laguna De Santa Maria SPB 31°05'N 107°15'W.

FARGO
41st Edition, August 20, 1964

Change Bismarck VOR freq 115.7 to 116.5. Change Red River VOR freq 108.8 to 116.7. Delete Petes Pond arpt 48°01'N, 101°59'W. Add obstn 1337' MSL 47°-54'18''N, 97°34'56''W. Delete Nelson arpt 46°51'N, 96°11'W. Add obstn 1835' MSL 46°17'08''N, 96°02'06''W.

GLACIER PARK
37th Edition, October 15, 1964

Delete Waterton Lake SPB 49°03'N, 113°54'W. Add obstn 3355' MSL 49°42'30''N, 112°43'00''W.

GRAND CANYON
39th Edition, December 10, 1964

No hazardous changes.

GRAND JUNCTION
41st Edition, November 12, 1964

No hazardous changes. Change Hanksville VORTAC freq 115.5 Ch 102 to 115.9 Ch 106. Delete airway beacon site #50, code — — 39°06'N, 112°42'W.

GREEN BAY
50th Edition, December 10, 1964

Add obstn 1448' MSL 44°33'13''N, 89°35'27''W. Delete Lakeland (Private) RBn 45°55'N, 89°43'W. Add obstn 1905' MSL 45°52'52''N, 89°17'25''W. Add airway V103W from White Cloud to Traverse City via the int of White Cloud 329°T & Traverse City 235°T.

HAWAIIAN ISLANDS
17th Edition, December 10, 1964

Delete Maui LFR 20°38'N, 156°27'W.

HUNTINGTON
52nd Edition, August 20, 1964

Change Front Royal VOR freq 113.5 to VORTAC freq 115.3 ch 100. Change Patterson VOR freq 117.1 to 111.6. Change Charleston (W.Va.) VORTAC freq 115.4 Ch 101 to 117.4 Ch 121. Change Gordonsville VORTAC freq 115.3 Ch 100 to 115.6 Ch 103. Add Hot Springs (Private) RBn freq 224, ident HSP, class HW 37°57'00N, 79°49'30''W. Change Wheeling RBn freq 263 to 212. Change Lockbourne AFB Military Climb Corridor R-5501 freq 123.7 to 125.4. In northern border change to Pittsburgh 117.4 Ch 121 PIT to Allegheny 117.1 Ch 118 AGE. In Western border change Levington VORTAC freq 115.9 Ch 106 to 117.0 Ch 117. Delete Wheeling RBn 40°06'N, 80°11'W.

JACKSONVILLE
51st Edition, November 12, 1964

Add obstn 395' MSL 31°49'59''N, 81°45'02''W.

KANSAS CITY
54th Edition, August 20, 1964

Delete Depperman arpt 38°21'N, 91°30'W. Add obstn 1117' MSL 39°42'30''N, 90°16'07''W. Change Quincy VORTAC freq 115.6 Ch 103 to 113.1 Ch 78. Delete Lambert-St. Louis ctl twr freq 278. Add obstn 1283' MSL 39°48'07''N, 93°35'16''W. Add obstn 1210' MSL 40°05'06'' 93°37'31''W. Add obstn 939' MSL 40°05'14''N, 91°47'-1''W. Add obstn 920' MSL 38°42'56''N, 89°57'26''W.

KLAMATH FALLS
51st Edition, September 17, 1964

Twr comsnd at Mahlon Sweet arpt freqs 118.9 & 257.8. In northern border change Redmond VORTAC freq 113.5 to 117.6 Ch 123. Delete airway bcn site no 34 code . . . . 42°27'N, 123°03'W. Delete Lake of Woods arpt 42°23'N, 122°12'W. Delete Beaver Marsh (FAA) bcn site no 73 code . . . . 43°08'N, 121°49'W.

KOOTENAI
40th Edition, February 6, 1964

Delete Waterton Lake SPB 49°03'N, 113°54'W. Add obstn 44°64' MSL 49°05'30''N, 117°47'00''W. Delete 3 flashg bcn NW of Cranbrook arpt 49°32'N, 115°46'W. Delete 5 flshg bcn surrounding Penticton arpt 49°28'N, 119°36'W.

LA GRANDE
41st Edition, July 23, 1964

Add V208 airway direct McCall to Dubois (082°M McCall) & add in eastern border Dubois VORTAC freq 116.9 Ch 116, ident DBS. Delete Payette FM 44°09N, 116°55'W. Delete Mesa Orchards arpt 44°38'N, 116°27'W. Delete Falconberry (USFS) arpt 44°42'N, 114°46'W. Delete bcn site no 44 code . . . . 45°13'N, 118°02'W. Delete airway bcn site no 47°45'27''N, 118°22'W. Delete airway bcn site no 21 code. — — 45°54'N, 118°34'W.

LAKE HURON
39th Edition, May 28, 1964

Extsv airway changes have been made in the SE corner of chart. Add obstn 1083' MSL 44°50'N, 79°20'W. Add obstn 1100' MSL 44°17'N, 78°42'W. Add obstn 1807' MSL 35°40'N, 79°13'W. Add obstn 1831' MSL 45°23'N, 78°59'W. Add obstn 1856' MSL 45°07'N, 78°30'W. Add obstn 1207' MSL 45°03'N, 83°43'W. Change obstn 1600' MSL to 1800' MSL 44°20'N, 78°18'W. Change Wurtsmith AF VOR freq 110.0 to 116.1. Add Kleinburg VOR freq 114.5 ident KG, class VORW, M.V. 7°W 43°56'N, 79°40'W. Delete Toronto LFR legs, ident YZ. Alpena, Mich. ctl area is revoked. Alpena, Mich. transition area designated 21 mi. radius of Phelps-Collins arpt. with 8 mi. extsn N. Realign V300 airway direct from Kleinberg to Wiarton.

LAKE SUPERIOR
40th Edition, August 20, 1964

Add obstn 1695' MSL 46°52'35''N, 88°54'09''W. Add obstn 1891' MSL 46°05'41''N, 88°21'50''W. Change KI Sawyer (AF) VOR freq 112.5 to 117.5. Revise Houghton, Mich. ctl zone adding 3 extsn. 4 SM wide, 3 SM long. extending NW, NE & SE Houghton, Mich. ctl area is revoked. Transition area designated 10 NM radius Houghton VOR with extsns NE & SE. Add obstn 780' MSL 46°59'00N, 84°41'50''W.

LAKE OF THE WOODS
37th Edition, August 20, 1964

Add V129 airway direct International Falls to Kenora. Add obstn 1942' MSL 48°49'00''N, 93°53'00''W. Add V129 airway direct Kenora VOR to Kenora LFR.

LEWISTON
42nd Edition, November 12, 1964

Extend V447 airway from Montpelier, Vt. to Sherbrook, P.Q. Canada via the int of Montpelier 020°T & Sherbrook 217°T. Extend W-102 aprxly 5 mi NW

LINCOLN

51st Edition, October 15, 1964

Add obstn 3034′ MSL 41°40′54″N, 97°52′38″W. Add obstn 2293′ MSL 41°23′37″N, 98°15′14″W.

LITTLE ROCK

47th Edition, January 7, 1965

No hazardous changes.

LOS ANGELES SECTIONAL CHART

58th Edition, August 20, 1964

Delete PORTER RANCH arpt 36°02′N–118°06′W. Realign V237 airway direct from NEEDLES to BOULDER. Change V25 airway brg 242°M to 246°M from Los Angeles. Change Long Beach ctl twr freq. 120.2 to 120.5. Delete Famoso FM 35°06′N, 119°09′W. Add Riverside ctl zone 3 mi radius of arpt with extension NW. Change Palmdale freq 112.2 to 145.5 & delete Ch 59. Delete airway beacon site #1A 34°08′N, 118°17′W. Delete Los Angeles Intnl ctl twr freqs 278 & 125.8. Delete airway beacon site #3, code ●●●— 34°10′N, 118°54′W. Delete airway beacon site #6, code —●— 34°20′N, 119°52′W. Delete Millers Ranch arpt beacon 34°43′N, 117°55′W. Delete George RBn 34°37′N, 117°23′W. Change Mc Carran ctl twr. freq 275.8 to 257.8.

MIAMI

50th Edition, September 17, 1964

Add obstn 276′ MSL 27°05′34″N, 80°27′01″W. Add obstn 457′ MSL 28°03′02″N, 81°47′58″W, Add Melbourne RBn freq 257, ident MLB, class HW, 28°05′57″N, 80°-42°04′W. Delete St. Petersburg Clearwater Intnl ctl twr freq 317. Change Sarasota–Bradenton VOR name to Sarasota. Delete Sarasota Bradenton ctl twr freq 272. Delete Tampa Intnl ctl twr freq 278. Add obstn 428′ MSL 28°04′26″N, 81°40′52″W. Add obstn 510′ MSL 27°32′30″ N, 81°29′35″W.

MILES CITY

42nd Edition, October 15, 1964

Delete Solseth arpt 46°02′N, 102°52′W. Delete Nelson arpt 47°57′N, 102°49′W.

MILWAUKEE

57th Edition, December 10, 1964

In eastern border change Salem VOR freq 117.8 ch 125 to 114.3 ch 90. Change Chicago Ohare VOR freq 111.6 Ch 53 to 113.9 Ch 89.

MINOT

40th Edition, September 17, 1964

Add obstn 1337′ MSL 47°54′18″N, 97°34′56″W. Delete Petes Port arpt 48°01′N, 101°59′W. Delete beacon, course lights & code at 49°55′N, 97°35′W and 49°58′N, 98°50′W.

MOBILE

55th Edition, July 23, 1964

Realign V11 airway direct from Greene County to Laurel Realign V70 & V20N airways direct from Evergreen to Greene County. Add obstn 467′ MSL 30°22′ 03″N, 90°02′20″W. Add obstn 480′ MSL 30°56′53″N 87°10′17″W. Add obstn 692′ MSL 30°43′50″N, 89° 46′35″W. Change Hanchey (AAF) VOR freq 110.6 t 112.4. Add Gay Farms RBn freq 329, ident GAY, clas MHW, 31°42′30″N, 84°49′55″W. Add Blakely, Ga. tran sition area additional airspace S of Eufaula VOR. Ad R–4402 aprxly 8 mi N of W–453. Extend W–453 aprxl 4 mi NW. Add Blakely RBn freq 365, ident BLG, clas MHW 31°21′00″N, 84°55′45″W. Add obstn 598′ MSI 31°09′26″N, 87°09′16″W. Add obstn 759′ MSL 31°45′ 26″N, 86°18′42″W. Add obstn 520′ MSL 31°00′N 86°18′42″W. Add obstn 325′ MSL 30°29′40″N, 89°49′47″ W. Add obstn 504′ MSL 31°08′13″N, 88°46′48″W. Ad obstn 1549′ MSL 30°43′25″N, 89°05′29″W. Change obst 448′ MSL to 642′ MSL 31°26′48″N, 86°56′24″W. Ad obstn 473′ MSL 30°47′50″N, 89°44′17″W. Delete Destin arpt 30°24′N, 86°29′W. Delete VALPARISO RBn 30°31′ 45″N, 86°39′00″W. Delete Gulfport ctl twr freq 272. Ad obstn 372′ MSL 30°35′51″N, 87°52′57″W. Delete Pensa cola ctl twr freq 305. Delete Horseshoe arpt 30°37′N 84°13′W.

MT. SHASTA

52nd Edition, November 12, 1964

No hazardous changes.

MT. WHITNEY

54th Edition January 7, 1965

No hazardous changes.

NASHVILLE

54th Edition, January 7, 1965

No hazardous changes.

NEW ORLEANS

56th Edition, September 17, 1964

Delete Bayou Boeuf SPB 29°41′N, 91°06′W. Delet Hodson arpt 29°40′N, 90°35′W. Delete Saltzman arp 29°57′N, 92°27′W. Add obstn 329′ MSL 30°35′47″N 91°31′47″W. Add 2 obstns 467′ MSL 29°59′20″N 90°27′45″W & 30°00′35″N, 90°27′22″W. Change obst 315′ MSL to 402′ MSL 29°38′46″N, 90°05′54″W. Delet Lake Charles ctl twr freq 109.1. Change obstn 104 MSL to 1244′ MSL 30°02′38″N, 92°22′17″W. Add obst 435′ MSL 30°07′57″N, 94°18′55″W. Add obstn 325′ MSL 30°29′40″N, 89°49′47″W.

NEW YORK

61st Edition, October 15, 1964

Change Clermont VOR freq 114.3 to 117.6. Chang Riverhead VORTAC freq 113.2 Ch 79 to 117.2 Ch 11 In norther border change Chester VOR freq 108.6 t 117.3 Delete Rentschler ctl twr freq 271. Delete Sunse arpt 39°59′N, 77°38′W. Correct Deer Park VORTAC cod —●● —●● —●—● to ●——● Add obstn 367′ MSL 41°06′33″N —●— —●—● 72°22′06″W. Change Delancey VOR freq 109.6 to 112.1 Delete bcn from Scranton arpt 41°29′N, 75°46′W. Chang Binghamton VORTAC freq 114.1 Ch 88 to 114.3 Ch 90

NORFOLK

55th Edition, September 17, 1964

Add obstn 1049' MSL 37°30'46''N, 77°36'06''W. Add obstn 1250' MSL 34°03'00''N, 78°04'56''W. Change Cherry Point VOR freq 116.1 to 113.6. Delete freq 137.65 from R-5312 Seymour Johnson AFB Military Climb Corridor. Change New Bern RBn Freq 299 to 379. Extend R-6601 aprxly 2 mi W. Delete Point Lookout RBn & FM 38°02'24''N, 76°19'16''W. Revise Elizabeth City ctl zone adding 2 extsns 10 mi NE &SW. Add obstn 45' MSL 37°41'52''N, 77°33'07''W. Change Flat Rock VORTAC freq 112.1 ch 58 to 113.3 ch 80. Change Langley (AF) VOR freq 113.2 to 111.6. Add obstn 388' MSL 36°46'26''N, 76°35'20''W. Change Patrick Henry ctl twr freq 257.8 to 256.9. Add R-5314 35°54'50''N, 76°35'30''W; 35°43'50''N, 76°35'30''N 35°34'40''N, 75°46'50''W; 35°48'-00''N, 75°43'40''W.

OKLAHOMA CITY

56th Edition, November 12, 1964

Add obstn 2749 MSL 35°34'07''N, 97°29'20''W.

ORLANDO

52nd Edition, November 12, 1964

Delete Strickland arpt 28°52'N, 81°57'W. Add obstn 157' MSL 2803'02''N, 81°47'58''W. Delete NAS Sanford ctl twr freq 296. Add obstn 506' MSL 28°22'53''N, 80°-6'30''W. Add obstn 344' MSL 28°20'58''N, 80°47'23''W. Add obstn 522' MSL 28°30'01''N, 80°34'52''W. Add obstn 28' MSL 28°04'26''N, 81°40'52''W. Add obstn 420' MSL 3°33'33''N, 81°32'40''W. Delete St. Petersburg-Clearwater Intnl ctl twr freq 317.

PHOENIX

52nd Edition, January 7, 1965

No hazardous changes.

POCATELLO

48th Edition, October 15, 1964

Delete Crowheart Butte arpt 43°16'N, 109°06'W.

PORTLAND

51st Edition, July 23, 1964

Delete Pugh arpt 44°29'N, 123°08'W. Twr comsnd at Fashion Sweet arpt freqs 118.9 & 257.8. Delete Portland Intl ctl twr freq 278. Delete Troutdale ctl twr freq 283. Add obstn 2049' MSL 45°31'19''N, 122°44'53''W.

PRESCOTT

42nd Edition, September 17, 1964

Delete Gray Mountain arpt 35°44'N, 111°29'W Delete Drake VOR 34°54'N, 112° 25'W Add V 291 airway from Winslow to Peach Springs.

RAPID CITY

41st Edition, December 10, 1964

No hazardous changes.

RENO

43rd Edition, January 7, 1965

No hazardous changes.

ROSWELL

52nd Edition, January 7, 1965

No hazardous changes.

SACRAMENTO

53rd Edition, January 7, 1965

No hazardous changes.

SALINA

51st Edition, September 17, 1964

Add obstn 2485' MSL 38°03'26''N, 99°22'13''W. Change obstn 2875' MSL to 2880' MSL 38°25'54''N, 98°46'18''W. Add Manhattan (Pvt) RBn freq 391, ident MHK, class HW 39°06'55''N, 96°37'30''W.

SALT LAKE CITY

50th Edition, December 10, 1964

No hazardous changes.

SAN ANTONIO

55th Edition, January 7, 1965

No hazardous changes.

SAN DIEGO

56th Edition, August 20, 1964

Delete Borrego Palms arpt 33°16'N, 116°23'W. Delete Torrey Pines arpt 32°54'N, 117°14'W. Delete Los Angeles Intl ctl twr freq 278. Delete Orange Co. ctl twr freq 326. Change NAAS Ream ctl twr freq 340.2 to 271.4. Delete Banning FM 33°55'N, 116°51'W. Delete Miramar RBn 31°53'N, 117°03'W. Change El Centro VORTAC name to Imperial & ident ELC to IPL. Add Palm Springs VOR freq 115.5 ident PSP, class L-VOR, MV 15°E 33°52'12''N, 116°25'43''W. Delete Oceanside RBn 33°14'N, 117°24'W. Add Riverside ctl zone 3 mi radius of arpt with NW extsn.

SAN FRANCISCO

56th Edition, January 7, 1965

No hazardous changes.

SAVANNAH

56th Edition, September 17, 1964

Delete Estill arpt 32°43'N, 81°15'W. Delete Santee Cooper arpt 33°33'N, 80°26'W. Add obstn 473' MSL 32°02'53''N, 81°59'08''W. Add obstn 631' MSL 32°-39'15''N, 83°01'48''W. Add obstn 700 MSL 32°09'56''N, 82°40'33''W. Add obstn 750' MSL 32°32'42''N, 82°-22'54''W. Add obstn 830' MSL 33°14'29''N, 82°41'46''W. Add obstn 835' MSL 32°50'52'', 83°20'22''W. Add obstn 1250' MSL 34°03'00''N, 78°04'56''W. Delete Columbia ctl twr freq 335. Twr comsnd at Owens arpt freqs 126.2 & 241.0. In northern border change Florence VORTAC freq 115.5 to 115.2 ch 99. Delete Montezuma arpt 32°18'N, 84°01'W. Relocate Augusta RBn 33°28'N, 81°59'W.

SEATTLE

56th Edition, December 10, 1964

Add obstn 526' MSL 47°05'53''N, 122°35'41''W. Add obstn 421' MSL 47°12'19''N, 122°16'11''W. Delete Evergreen arpt 47°18'N, 122°19'W.

SHREVEPORT

48th Edition, January 7, 1965

Delete Marshall VOR 32°27′N, 94°15′W.

SIOUX CITY

40th Edition, November 12, 1964

Delete Madison arpt 44°01′N, 97°03′W. Add obstn 1902′ MSL 42°05′24″N, 97°01′00″.

SPOKANE

50th Edition, December 10, 1964

No hazardous changes.

TRINIDAD

40th Edition, Sepetember 17, 1964

Add V211 airway via 270°M from Durango. Add V421 airway Farmington to Durango to Gunnison. Delete Hermit Lakes arpt 37°49′N, 107°13′W. Add obstn 4290′ MSL 37°55′27″N, 107°13′W. Delete Clayton VOR 36°23′N, 103°13′W. Add Durango, Colo ctl zone 5 mi radius of arpt.

TULSA

54th Edition, October 15, 1964

Delete Sky Haven arpt 36°46′N, 91°53′W. Delete Waynesville Mem arpt 37°49′N, 92°11′W. Add obstn 663′ MSL 36°03′40″N, 90°57′15″W. Add obstn 1350′ MSL 37°50′59″N, 94°22′22″W. Delete Golf Ranch arpt 36°38″N 93°11′W. Add obstn 790′ MSL 36°19′49″N, 90°-17′04″W. Add obstn 25°49′ MSL 35°58′08″N, 95°36′55″ W. Add obstn 1465′ MSL 38°02′26″N, 91°30′53″W.

TWIN CITIES

49th Edition, November 12, 1964

Add obstn 1531′ MSL 45°01′32″N, 93°02′38″W. Add obstn 1363′ MSL 45°02′46″N–93°11′47″W.

WASHINGTON

60th Edition, October 15, 1964

Change Kenton VORTAC freq 114.8 Ch 95 to 116.8 Ch 115. Change Sea Isle VORTAC freq 115.2 Ch 99 to 114.8 Ch 95. Delete Point Lookout RBn & FM 38°-02′24″N, 76°19′16″W. Delete Sunset arpt 39°59′N, 77°38′ W. In southern border change Flat Rock VORTAC freq 112.1 ch 58 to 113.3 ch 80. Change Atlantic City VORTAC freq 108.6 ch 23 to 114.8 ch 95. Correct Woodstown ident ODD to OOD. Change Millville VOR freq 115.8 to 115.2. ALF Webster (Navy) ctl twr decmsnd.

WICHITA

53rd Edition, January 7, 1965

No hazardous changes.

WILLISTON

38th Edition, July 23, 1964

Delete Petes Port arpt 48°01′N, 101°59′W. Add obstn 2125′ MSL 49°43′15″N, 104°01′00″W. Add obstn 2690′ MSL 49°42′10″N, 106°03′05″W. Add obstn 2735′ MSL 49°38′40″N, 105°59′30″W. Add obstn 2930′ MSL 49°-26′45″N, 107°00′45″W. Add obstn 3150′ MSL 50°-00′30″N, 107°45′00″W. Add Moose Jaw term ctl area within a 50 SM radius of Moose Jaw arpt 50°20′N 105°33′W.

WINSTON-SALEM

54th Edition, October 15, 1964

Change Bluefield VOR freq 113.3 to 115.4. Add Hot Springs (Pvt) RBn freq 224, ident HSP, class HW 37°57′00″N, 79°49′30″W. In northern border change Charleston W.Va. VORTAC freq 115.4 Ch 101 to 117.4 Ch 121. Change Flat Rock VORTAC freq 112.1 ch 58 to 113.3 ch 80. Delete Clarksville–Finchley arpt 36°40′N, 78°29′W In western border change Lexington VORTAC freq 115.4 ch 106 to 117.0 ch 117. Delete London RBn 37°05′25″N 84°04′30″W.

YELLOWSTONE PARK

40th Edition, September 17, 1964

Delete West Yellowstone arpt 44°40′N, 111°07′W. In southern border change Boysen Reservoir VORTAC freq 114.9 Ch 96 to 117.8 Ch 125.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

MOBILE, BROOKLEY AFB RDO: VOR unusable below 2000' MSL beyond 30 nmi due reduced coverage.

ARIZONA

BUCKEYE RDO: VOR unusable below 7000' MSL beyond 40 nmi 320–345° acct reduced coverage.

PEACH SPRINGS RDO: VORTAC unusable below 10,000' MSL beyond 40 nmi from 195–230° account reduced coverage.

PHOENIX RDO: VORTAC azimuths unusable beyond 10 nmi below 10,000' MSL 152–165° and 200–210° and beyond 6 nmi below 7000' MSL 078–125° acct crs roughness.

PRESCOTT RDO: VORTAC unusable beyond 40 nmi below 11,000' MSL 145–155° and 175–200°; below 17,000' MSL 200–225°: below 12,000' MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

PRESCOTT RDO: HI alt J–6 btn Prescott, and Grants, N. Mex unusable below FL 280 account roughness. Change over point 131 nmi E.

SAN SIMON RDO: VORTAC unusable beyond 40 nmi below 15,000' MSL 145-190°; below 14,000' 190–255°; below 10,500' MSL 350–145° account reduced coverage.

TUCSON RDO: TACAN unusable beyond 6 nmi below 14,500 MSL 240–295° account crs roughness. VORTAC unusable beyond 40 nmi below 15'000 MSL from 320–045°; below 16,500' MSL 045–065°; below 15,000' MSL 065–080°.

YUMA RDO: VORTAC unusable beyond 40 nmi below 6000' MSL 280–300°.

ARKANSAS

FT. SMITH RDO: TACAN azimuth unusable below 10,000' MSL 137–245° acct roughness.

HOT SPRINGS RDO: VOR rads unusable below 3500', beyond 20 mi due roughness and scalloping.

CALIFORNIA

ARVENAL RDO: TACAN unusable beyond 40 nmi below 3000' MSL 320–065° below 4000' MSL, 065°–095° below 4500' MSL, 095–125° below 8500' MSL, 125–170° below 7500' MSL, 170–198° below 7000' MSL, 195–230° below 8000' MSL, 230–305° below 8000' MSL.

BLYTHE RDO: VORTAC unusable beyond 40 nmi below 8000' MSL 324–018° below 9000' MSL 189–217°, below 10,000' MSL 175–189°, below 15,000' MSL 277–324°.

EVERGREEN RDO: H fac unusable btn 360–120° clockwise.

FILLMORE RDO: VORTAC unusable beyond 40 nmi 13,000' and below 280–290° and 14,000' and below 290–350°

FORT JONES RDO: LFR E crs unreliable account multiples.

FRESNO RDO: TACAN portion of VORTAC unusable below 4000' MSL 200–250°.

GOFFS RDO: VOR unusable beyond 40 nmi below 11,000' MSL 265–290° and 15,000' MSL 290–310° acct reduced coverage.

GORMAN RDO: VORTAC unusable beyond 40 nmi below 15,000 MSL 265–310° below 10,500' MSL 350–040°; below 5500' MSL 125–155°; below 10,500' MSL 155–170° below 14,000 MSL 170–219°; below 31,000' MSL 219–250°; below 25,000' MSL 250–265° acct reduced coverage.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES RDO: VORTAC unusable beyond 40 nmi below 6000' MSL from 135–180°, below 7000' MSL from 268–290°. V–201 011° rad beyond 20 nmi below 9000' MSL. DME portion unusable beyond 40 nmi below 3500' MSL from 180–210° acct reduced coverage. TACAN azimuth portion unusable beyond 12 nmi below 5000' MSL from 090–100°.

NAPA RDO: DME unusable beyond 40 nmi below 7500' 280–045°. TACAN unusable beyond 40 nmi below 7500' from 280–045°.

NEEDLES RDO: VORTAC unusable below 11,500' MSL beyond 40 nmi from 170 to 220° account reduced coverage.

OAKLAND RDO: H facil unusable beyond 25 nmi 094–124°. TACAN unusable beyond 20 nmi below 3700′ MSL 045–330°; below 4500′ MSL 330–045°; beyond 40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO RDO: VOR unusable below 14,000′ MSL beyond 40 nmi from 200 to 140° account reduced coverage.

PALMDALE RDO: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°.

PALM SPRINGS RDO: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER RDO: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150° acct reduced coverage.

POINT REYES RDO: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA RDO: VOR unusable beyond 37 nmi on the 073° rad and beyond 40 nmi below 14,500′ MSL 270–330° below 18,000′ MSL 330–360° below 22,000′ MSL 360–035° below 14,500′ MSL 035–045° below 8000′ MSL 070–140° below 7000′ MSL 140–270° acct reduced coverage.

PORTERVILLE RDO: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180° account reduced coverage.

RED BLUFF RDO: VOR unusable below 3500′ MSL 280–300° acct crs scalloping.

RIVERSIDE RDO: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°. VOR will be shutdown for mod.

RIVERSIDE, MARCH AFB RDO: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°. Vail Lake VOR ident VLK limited to 30 nmi radius above 8500′ from 200–320° above 12,000′ from 070 to 320° above 13,000′ from 200–070°

SALINAS RDO: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO RDO: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. TACAN unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320° acct roughness.

SAN FRANCISCO RDO: H facility unusable beyond 15 mi from 130°–160° clockwise.

SAN FRANCISCO GAP RDO: FM unusable below 2000′ MSL.

SAN JOSE RDO: VOR unusable beyond 20 nmi below 8000′ MSL 360–040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SANTA ANA, EL TORO MCAS RDO: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA RDO: VOR unusable beyond 40 nmi below 11,000′ MSL 050–265°. Not certified within Warning Area 289.

SAUSALITO RDO: VORTAC unusable 300–313° beyond 10 mi below 12,000′.

THERMAL RDO: VORTAC azimuths unusable beyond 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ MSL 060–085°, 8000′ MSL; 150–200°, 15,000′ MSL; 200–250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS RDO: VORTAC azimuth unusable 010–035°; 13,000′; 100–120°. 11,500′; 120–240° 10,500′ beyond 40 nmi.

WOODSIDE RDO: VORTAC unusable below 5000′ MSL beyond 30 nmi 190°–260° and beyond 20 nmi 260–305° unusable beyond 10 nmi below 4000′ 360–050°.

COLORADO

ALAMOSA RDO: VORTAC unusable beyond 40 nmi below 18,000′ MSL from 025–045° and below 13,500′ MSL 150–165° acct reduced coverage.

COLORADO SPRINGS RDO: VOR unusable below 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 9000′ MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ MSL 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi acct reception VORTAC (COS) unusable beyond 40 nmi below 15,200′ MSL, 300–340°; below 14,300′ MSL, 340–005°; below 13,200′ MSL, 005–020°; below 12,100′ MSL, 020–030° acct reception.

DENVER RDO: Efctv immediately J–20, Denver, Colo VORTAC to Gage, Okla. VORTAC changeover point 145 nmi from DEN VORTAC. Continuous navigation signal coverage does not exist over entire route segment 27,000′.

HANOVER RDO: H facil bearings unreliable beyond 2 nmi in shadow area of Pikes Peak

CONNECTICUT

BRIDGEPORT RDO: VOR unusable beyond 10 nmi from 265° clockwise to 280°; beyond 6 nmi 290–305° beyond 20 nmi 315–340° at MOCA. VOR unusable beyond 18 nmi below 7000′ MSL 200–215°.

GROTON RDO: H facil unusable beyond 15 nmi.

NEW HAVEN RDO: VOR unusable beyond 20 nmi at MOCA.

DISTRICT OF COLUMBIA

WASHINGTON RDO: DCA VOR unusable beyond 3 nmi 010–045°; beyond 10 nmi 045–055°; beyond 15 nmi 055–070°; beyond 20 nmi 070–180°; beyond 32 nmi 180–210°; beyond 30 nmi 210–260°; beyond 20 nmi 260–300° beyond 35 nmi 300–340° account roughness and scalloping. Change over point established 16 nmi from Baltimore VOR on V–157.

FLORIDA

KEY WEST RDO: VOR unusable below 14,500 from 095–340° beyond 15 nmi.

GEORGIA

AUGUSTA RDO: VOR unusable 357–002° acct roughness. V185 tmprly authorized 180° rad Greenwood to Augusta VOR. MEA 2300′ MSL due restriction

COLUMBUS, LAWSON AAF RDO: VOR unusable beyond 17 nmi.

FULTON RDO: VOR unusable all radials except 220–280° acct roughness.
MACON RDO: FSS freqs 122.2, 126.7, 255.4 unusable below 2500′ in SE quad beyond 35 mi.
ROME RDO: VOR rads 124–134° unusable account roughness.

IDAHO

BOISE RDO: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050° account reduced coverage.
BURLEY RDO: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150° acct reduced coverage.
LEWISTON RDO: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.
MULLAN PASS RDO: H facil momentary ADF disturbance may be experienced within 15 nmi stn 230–280°. 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200– 230° and below 12,000′ MSL from 290–310°.
POCATELLO RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120° acct reduced coverage.
TWIN FALLS RDO: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150° acct reduced coverage.

ILLINOIS

CHAMPAIGN RDO: TACAN radials 231–239° unusable below 14,000′.
CHICAGO O'HARE RDO: VOR unusable 060–072°, 160–190°, 290–305°, 340–360°. DME unusable 004–014°, 135–156°, 285–315°, 340–350°.
CHICAGO HEIGHTS RDO: VOR portion unusable beyond 20 nmi below 8000′ MSL 330–350°.
DECATUR RDO: VOR unusable above 12,000′ MSL beyond 40 nmi E due to freq interference with RID VOR.
JOLIET RDO: VOR unusable 040–070° below 3000′ MSL beyond 35 nmi.
PEOTONE RDO: VOR 341–010° rads unusable beyond 33 mi below 3000′ MSL

INDIANA

KNOX RDO: VOR coverage restricted to 37 nmi at MEA. Possible interference btn Mansfield, Ohio and Knox VOR above 10,000′ MSL beyond 45 nmi E of Knox VOR.

IOWA

MASON CITY RDO: TACAN azimuth portion of VORTAC not to be used for apchs or coupled flight acct momentary crs roughnes which may occur at all azimuths and all ranges below 14,500′ MSL.
NEOLA RDO: Voice comms with Omaha, Nebr FSS unusable below 4500′ on V–172 and V–172N btn 20 and 46 nmi E VORTAC, excp rcvr 122.1 and tsmts 117.1 mc.
WATERLOO RDO: DME portion of VORTAC unusable beyond 15 nmi at all alts 355–005° account unreliable crs and distance indications. Not to be used for apchs to runwy 18 acct roughness.

LOUISIANA

SHREVEPORT-DOWNTOWN RDO: VOR unusable 070–100° and 180–280°.
SHREVEPORT RDO: TACAN azimuth unusable beyond 8 nmi below 9700′ MSL 300–315°.

MAINE

LIMESTONE-LORING AFB RDO: USAF VOR inop indef.
MILLINOCKET RDO: VOR unusable beyond 35 nmi 330–340° at MOCA.

MARYLAND

FREDERICK RDO: VOR unusable below 2000′ beyond 25 nmi from 055–190°.
PATUXENT RDO: VOR unusable below 1500′ MSL; beyond 35 nmi from 245–300° acct reduced coverage.
SNOW HILL RDO: VOR unusable below 1500′ beyond 12 nmi 315–005°/ below 1500′ beyond 25 nmi 005–020° and below 1300′ beyond 20 nmi 210–225° acct roughness. Changeover point on V–139 btn Snow Hill and Cape Charles 20 mi SW Snow Hill.

MASSACHUSETTS

BEDFORD RDO: VOR unusable below 3000′ MSL beyond 10 nmi 270–225° and below 13,000′ MSL beyond 10 nmi 225–270°.
BOSTON RDO: VOR unusable beyond 26 nmi all azimuths at MOCA.
SHUTESBURY RDO: VOR ident SHT freq 109.2 for use only with published procedures. Not for use as enroute navaid.
WESTFIELD RDO: VOR unusable beyond 35 nmi from 270° clockwise to 320° at MOCA.

MICHIGAN

BATTLE CREEK RDO: TACAN rads 275 thru 290° unusable 13,500′ MSL and below beyond 15 nmi due crs roughness.
CARLETON RDO: TACAN portion of VORTAC unusable beyond 12 nmi below 4500′ MSL 335–345° acct roughness.
FLINT RDO: VORTAC unusable 300–320° beyond 6 nmi below 10,000′ account roughness and unlocks. TACAN azimuth unusable 320–030° beyond 6 nmi, below 10,000′ account roughness and unlocks.
GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00′48″, long 84–41′30″, Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1).
MARQUETTE RDO: VOR unusable 200–335° below 2900′ beyond 25 mi; 335–350° below 2900′ beyond 30 mi; 200–350° below 4400′ beyond 40 nmi.
MT. PLEASANT RDO: Non-Federal VOR operg 24 hrs daily VFR use only. Class: L–BVOR Freq: 109.8 mc. Ident: MOP. Lctd lat 43°37′, long 84°44′. Monitoring category (1) Rcvg 122.1 and 126.7 mc.
WHITE CLOUD RDO: VOR unusable below 2000′ from 360–090° clockwise beyond 35 mi.

MINNESOTA

INTERNATIONAL FALLS RDO: H facility shutdown UFN.
WINONA RDO: VOR unusable as enroute IFR aid.

MISSOURI

KANSAS CITY RDO: Riverside VOR unusable beyond 15 mi below 2400′ MSL; beyond 30 mi below 4000′; 125–170°, 252–260° and 300–310° unusable all distances and alts.

MARYLAND HEIGHTS RDO: VOR coverage restricted to 35 nmi from 150° clockwise to 219° at MEA.

MONTANA

BOZEMAN RDO: VOR unusable beyond 40 nmi below 20,000′ MSL 010–035°; below 18,000′ MSL 035–090° acct reduced coverage.

BUTTE RDO: VOR unusable beyond 40 nmi below 15,000′ MSL 005 thru 030°. 13,000′ MSL 030 thru 075°; 15,000′ MSL 160 thru 230°; 11,000′ MSL 355 thru 005° acct reduced coverage.

DILLON RDO: VORTAC unusable beyond 40 nmi below 11,000′ MSL from 340–350° below 9000′ MSL 010–020°; below 12,000′ MSL 020–040°; below 14,000′ MSL 040–080°; below 12,000′ MSL 080–090°; below 14,000′ MSL 090–130° below 18,000′ MSL 130–145° account reduced coverage. TACAN azimuth has momentary cross pointer excursions btn 25 and 30 nmi at MEA 145 thru 155° which may be encountered at higher alts and greater range.

DRUMMOND RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 055–070°, below 14,000′ MSL from 110–125°, below 17,000′ MSL from 125–150°, below 13,000′ MSL from 150–210°, below 14,000′ MSL from 210–270°, below 12,000′ MSL from 270–055° acct reduced coverage. Possible momentary flag activity on V–2 nine miles E of Drummond VOR. Verify station passage by to/from indication.

GLASGOW AFB RDO: USAF VOR unusable for civil use below 6800′ MSL beyond 10 nmi 235–245° account crs roughness.

HELENA RDO: VOR unusable beyond 40 nmi below 10,000′ MSL 360–065°; 11,000′ 065–090°; 16,000′ 110–120°; 18,000′ 120–180°; 17,000′ 180–205°; 14,000′ 205–220°; 12,000 220–240; 11,000′ 240–305°; 10,000′ 305–320° account reduced coverage.

LIVINGSTON RDO: VORTAC unusable beyond 40 nmi below 9000′ from 070 thru 090° below 13,000′ from 250 thru 280°; below 17,000′ from 340 thru 010° and below 16,000′ from 010 thru 040°.

MISSOULA RDO: VORTAC unusable beyond 15 nmi 345–060°; beyond 22 mi 060–095°; below 10,000′ beyond 20 mi 095–165°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 285–315°; not usable 315–345° beyond 34 mi, TACAN below 14,000′ VOR below 11,000′, acct reduced coverage. Possible momentary VOR flag activity on V–2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL RDO: VOR unusable below 14,500′ MSL beyond 30 nmi from 000–040°; below 12,000′ MSL beyond 30 nmi from 041–055°; below 14,500′ MSL beyond 30 nmi 120–160°; below 14,500′ MSL beyond 20 nmi from 215–230°; below 14,500′ MSL beyond 35 nmi from 231–285°, below 13,500′ MSL beyond 30 nmi from 286–359° acct crs roughness and TACAN unlock. TACAN unusable for apchs 268° rad to Silver Bow County/Butte Airport.

NEBRASKA

GRAND ISLAND RDO: TACAN unusable beyond 2(nmi below 7000′ 360–025°; from 0 to 10 nmi below 12,000′ 055–085°; from 0 to 20 nmi below 12,000′ 255–285°.

OMAHA RDO: Voice comms with Omaha, Nebr. FSS unusable below 3600′ on V–6–8S btn 36 and 55 nmi E of VORTAC, evcep tsmtg 116.3 mc.

NEVADA

BATTLE MOUNTAIN RDO: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285° acct reduced coverage.

BEATTY RDO: VOR restricted below 8000′ beyond 2(nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–060°

BOULDER RDO: VOR restrictions 300 to 310° below 8000′ MSL beyond 15 nmi due to scalloping.

COALDALE RDO: VOR portion of VORTAC unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 1(nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced coverage. DME unusable beyond 15 nmi below 14,000′ MSL 065–075° below 17,000′ MSL 150–235°; below 16,000′ MSL 320–330° account reduced coverage.

CURRANT RDO: VOR unusable beyond 15 nmi at MOCA 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 nmi 260–290°; nmi 290–310° acct reduced coverage.

ELY RDO: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500′ MSL from 120–170° and 240–320°; below 14,000′ MSL 170–220° and 320–340° below 15,000′ MSL from 220–240°; below 12,000′ MSL from 340–010°; beyond 10 nmi below 13,000′ MSL from 010–120°.

HAZEN RDO: VOR unusable 300–320° beyond 30 nmi below 9500′.

LAS VEGAS RDO: VORTAC unusable beyond 40 nmi below 9500′ MSL from 190° to 220° below 12,50(MSL from 200° to 255°, below 14,500′ MSL from 255 to 270°, below 16,000′ MSL from 270–290° acct of reduced coverage.

MINA RDO: VOR unusable below 11,000′ due roughness.

MORMON MESA RDO: VORTAC unusable beyond 4 nmi below alts 12,000′ MSL from 055 to 100°; 14,00(MSL from 100 to 110°; 17,000′ MSL from 110 to 135° 16,000′ MSL from 285 to 340° account reduced coverage.

RENO RDO: H facility unusable 170°–270° beyond 2 nmi, 270°–300° beyond 30 nmi and 300–010° beyon 23 nmi. VOR unusable 200–230° beyond 30 nmi below 13,000′. TACAN unusable below 14,500′ beyon 30 nmi btn 210–230°.

SPARKS RDO: H facility unusable btn 175–185° beyond 18 nmi.

TONOPAH RDO: VOR unusable below 13,000′ MSL beyond 40 nmi 005–030° acct reduced coverage.

WELLS RDO: VOR unusable beyond 40 nmi 18,00(MSL 005–030°; below 22,500, 185–210°; below 15,00(335–350°; and below 12,000′, 350–005° account reduce coverage.

NEW HAMPSHIRE

KEENE RDO: VOR unusable 070–085° beyond 20 nm at MOCA.

LEBANON RDO: VOR unusable below 6900′ MSL beyond 35 nmi, 110–115° acct reduced coverage.

NEW JERSEY

ATLANTIC CITY RDO: VOR unusable beyond 35 mi from stn to MOCA. TACAN has momentary cross pointer excursions within 10 nmi at MOCA, which may be encountered at higher alts and greater ranges. TACAN apch rnwys 13 and 31 for mil jet acft approved; otherwise unsuitable for instrument apch procedure.

COBBINSVILLE RDO: VOR unusable beyond 30 nmi from 020° clockwise to 065° at MOCA due interference undisclosed source.

NEW MEXICO

IMARRON RDO: VOR coverage restricted to awys 40 nmi at MEA excp V–19, N of CIM 35 nmi.

OLUMBUS RDO: VOR 078° rad restricted to 20,000′ MSL for 40 nmi.

RANTS RDO: TACAN portion unusable beyond 20 nmi 175–210°, 315–360° and 011–035° at MOCA acct loss of signal, the portion 001–010° unusable acct loss of signal. VOR portion unusable beyond 30 nmi 310–360°, 20 nmi 360–025°, 30 nmi 150–175°, 20 nmi 175–210°, 35 nmi 240–265° at MOCA.

OSWELL RDO: TACAN unusable beyond 20 nmi below 7000′ MSL 060–140°; below 8000′ MSL 141–215° acct crs roughness.

NEW YORK

INGHAMTON RDO: Erratic ADF action 4–13 nmi SSE of facil at min inst alt.

ERMONT RDO: VOR unusable beyond 35 nmi 045–050° and 30 nmi 070–140° at MOCA. About Jan 7, 1965, VOR name and ident will be changed to Kingston, IGN.

EER PARK RDO: VOR unusable below 1500′ MSL beyond 35 nmi from 070–180° below 1500′ MSL beyond 30 nmi from 180–240° below 2000′ MSL beyond 20 nmi from 240–350° below 2000′ MSL beyond 30 nmi from 350–040° due reduced coverage. TACAN unusable below 1500′ beyond 15 nmi from 088–098° due roughness.

UNKIRK RDO: VOR unusable below 4000′ MSL beyond 22 nmi from 120–180° acct reduced coverage.

LENS FALLS RDO: DME unusable beyond 35 nmi 305–315°, beyond 30 nmi 315–320°, beyond 25 nmi 320–325°, beyond 30 nmi 325–350° at MOCA.

AMPTON RDO: DME unusable below 1500′ MSL beyond 35 nmi 280–325°; below 2000′ MSL beyond 30 nmi 325–355° account reduced coverage.

UGUENOT RDO: VOR unusable below 6500′ beyond 20 nmi 210–230° due reduced coverage.

HACA RDO: VOR unusable beyond 25 nmi 360– 150°.

EW YORK, KENNEDY RDO: VOR unusable below 1500′ beyond 30 nmi 015–303°; below 1500′ beyond 26 nmi 030–045°; below 2000′ beyond 24 nmi 045–060°; below 1500′ beyond 24 nmi 060–075°; below 1500′ beyond 30 nmi 075–100°; below 1500′ beyond 28 nmi 100–150°; below 1500′ beyond 26 nmi 150–165°; below 1500′ beyond 30 nmi 165–215°; below 1500′ beyond 26 nmi 215–270°; below 2000′ beyond 26 nmi 270–340°; below 2000′ beyond 30 nmi 340–350°; below 1500′ beyond 35 nmi 350–015°. MRA Northport Int 2500′ MSL acct crs roughness.

EW YORK RDO: La Guardia VOR (freq 113.1 mc) unusable clockwise beyond 20 mi 015–025°; 35 nmi 025–045°; 30 nmi 065–075°; 25 nmi 075–135°; 35 nmi 135–145°; 15 nmi 165–205°; 35 nmi 205–215°; 30 nmi 215–220°; 25 nmi 220–230°; 30 nmi 230–240°; 20 nmi 240–250°; 10 nmi 250–260°; 20 nmi 260–270°; 25 nmi 270–285°; 30 nmi 285–295°; 35 nmi 295–305°; 35 nmi 315–325°; 25 nmi 325–005° at MOCA.

ROCHESTER RDO: VOR unusable beyond 12 nmi btn 045 to 065° at MOCA. VOR subject to shutdown except Sundays and holidays acct arpt constr. Whenever weather conditions go below ceiling 800′ and/or visibility 2 mi VOR will return to service.

NORTH CAROLINA

CHARLOTTE RDO: VOR normal excp 045° rad unusable beyond 20 nmi due roughness.

ELIZABETH CITY RDO: VOR unusable 026–042° and 085–100°, unusable 276–312° below 5000′. V–472 tmpry authorized 130° rad FKN ECG VOR MEA 2500′ MSL due restrictions.

GOLDSBORO, SEYMOUR JOHNSON AFB RDO: VOR rads 290° thru 320° and 100 thru 190° unusable due roughness, scalloping and bends.

OHIO

AKRON RDO: VOR portion VORTAC unusable 030–080° acct crs roughness. From V–72 utilize published YNG VOR rad from Akron to YNG. SW–bnd determine stn passage at Akron by To-From indicator. MEA 2500′ MSL.

BRIGGS RDO: VOR unusable 330–010° and 120–145°, unusable above 10,000′ MSL 305–325° acct roughness. For V–8, V–75, V–92, utilize published Wheeling VOR 310° radial BSV to Wheeling VOR 3100′ MEA.

JEFFERSON RDO: VORTAC 109° rad V1506 unusable beyond 40 nmi acct interference with Georgetown VOR, changeover point 40 nmi from JFN and 82 nmi from Keating VOR, MAA FL 240.

MANSFIELD RDO: VOR unusable above 8000′ MSL beyond 20 nmi from stn 140–220° due co-channel interference 108.8 mc from Rainelle, W.Va. VOR.

MONTGOMERY CO RDO: VOR unusable beyond 30 nmi 070° clockwise to 085°, 135–155°; 225–250°; 280–295° at MOCA. All other azimuths unusable.

STRONGVILLE RDO: VOR unusable beyond 35 nmi from 080–200° at MOCA.

OREGON

NEWPORT RDO: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 6000′ MSL 150–170°; 6000′ MSL 320–350° acct reduced coverage.

PORTLAND RDO: VORTAC 332° rad and the DME on the same 332° rad not usable beyond 40 nmi at 6,000′.

REDMOND RDO: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210–240°.

ROSEBURG RDO: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN RDO: VOR unusable below 3500′ MSL beyond 26 nmi from 020 to 060° account crs roughness.

ALTOONA RDO: VOR unusable below 3500′ MSL beyond 18 nmi 070–100° below 3500′ MSL beyond 30 nmi 100–160° below 4500′ MSL beyond 30 nmi 200–310° all altitudes beyond 15 nmi 310–350° below 4000′ MSL beyond 30 nmi 350–010° due reduced coverage.

BRADFORD RDO: H fac unusable beyond 15 nmi 90 to 180° acct excessive needle oscillation.

CARROLLTOWN RDO: VOR unusable beyond 10 nmi 070–085° at MOCA.

HARRISBURG RDO: VOR unusable beyond 26 nmi from 105–140°; beyond 30 nmi 140–165° beyond 35 nmi 195–230° at MOCA. TACAN azimuth unusable beyond 35 nmi 195–230° 15 nmi 230–265° and 330–345° at MOCA. TACAN distance unusable beyond 30 nmi 325–360° beyond 35 nmi 360° beyond 35 nmi 360–025° at MOCA.

HAZLETON RDO: Non-Federal H facil hrs of opern limited to 0700–1900 UFN.

HUGHESVILLE RDO: H facil has erratic ADF action 2–4 nmi from stn in E quad at min instr alt.

IMPERIAL RDO: VOR unusable from 150 to 170° below 8000′ and from 345 to 360° below 14,500′ MSL account crs roughness. For V40/41 btn IRL and ABC VORTAC below 8000′ MSL utilize AGC 330° rad.

LANCASTER RDO: VOR unusable below 5000′ MSL beyond 15 nmi, below 6000′ MSL beyond 25 nmi from 320–340° acct crs scalloping.

LATROBE RDO: VOR unusable all alts all azimuths beyond 20 nmi due crs vagaries.

PITTSBURGH, ALLEGHENY RDO: H facil brgs unreliable SW quad beyond 20 mi all alts due to excessive needle oscillations.

THORNHURST RDO: VORTAC unusable beyond 15 nmi below 6000′ MSL 300–330°.

YARDLEY RDO: VOR unusable below 1700′ MSL beyond 17 nmi 250–265°; beyond 10 nmi 265–280°; beyond 17 nmi 280–290° account crs roughness. TACAN unusable below 2400′ MSL beyond 15 nmi, below 5000′ MSL beyond 30 nmi 225–275° acct roughness and DME unlock.

RHODE ISLAND

PROVIDENCE RDO: VOR unusable beyond 30 nmi below 3000′ acct reduced coverage from 220–310°.

SOUTH CAROLINA

MYRTLE BEACH RDO: VOR rads 220–245° unusable below 2500′ MSL beyond 15 nmi.

SOUTH DAKOTA

MITCHELL RDO: VOR restricted to VFR use only UFN.

MOBRIDGE RDO: State owned and operd VOR operg 0700–1900, VFR use only. Class: L–VOR. Freq: 108.6, receivers 122.1. Ident MBG. Lctd lat 45°33′–07″, long. 100°21′56″.

WATERTOWN RDO: TACAN unusable 218–238° between 19–25 mi acct crs roughness.

TEXAS

AMARILLO RDO: TACAN unusable beyond 15 nmi below 7,000′ MSL 110–235° acct roughness.

AUSTIN RDO: VOR unusable beyond 35 nmi belo 3500′ MSL 260–320°.

BROWNWOOD RDO: VOR coverage restricted to 2 nmi at min instr alt 015–085°.

EL PASO RDO: TACAN unusable beyond 30 nmi a MOCA from 265° clockwise thru 300°.

FORT WORTH, GREATER SOUTHWEST RDO TACAN portion of VORTAC unusable beyond 30 nm below 4000′ MSL.

GALVESTON RDO: TACAN unusable beyond 20 nm below 3000′ MSL 040–075 °acct crs roughness.

PALACIOS RDO: TACAN unusable 265–330° ac roughness.

WACO RDO: TACAN unusable beyond 15 nmi belo 5000′ MSL 175–195°.

WINK RDO: TACAN unusable beyond 17 nmi below 70 MSL 030–080°.

UTAH

CEDAR CITY RDO: VOR unusable beyond 40 nmi b low 17,500′ MSL 065–090°; below 22,000′ MSL 0 100°; below 24,000′ MSL 100–140°; below 20,0 MSL 140–150°; below 17,000′ MSL 150–170° accou reduced coverage.

DELTA RDO: VOR unusable beyond 40 nmi belo 16,000′ MSL 040–080° acct reduced coverage.

HANKSVILLE RDO: VORTAC coverage restricted fro 160 thru S to 190° 26nmi at 14,000′ MSL.

LUCIN RDO: VOR unusable beyond 40 nmi belo 15,000′ MSL 180–220°; below 12,000′ MSL 280–310 below 11,000′ MSL 310–330° account reduced coverag

MILFORD: Jet Route 107 from Milford, Utah VO to Rock Springs, Wyo. VOR continuous navigati signal coverage does not exist over the entire rou segment below 28,000′. VOR moderate to hvy roug ness over mountain ridges on 072 rad 10 mi out. TACAN momentary crs excursion and roughness excess of 3° exists on TACAN rads.

OGDEN RDO: VORTAC unusable beyond 40 nmi l low 21,000′ MSL 360–055°; below 16,500′ MSL 0 thru 075°; below 22,000′ MSL 075 thru 130° accou reduced coverage.

PROVO RDO: VORTAC unusable beyond 40 nmi bel 15,000′ MSL 010–035°; below 16,000′ MSL 035–05 below 15,000 MSL 275–285°; below 14,000′ MSL 28 295° acct reduced coverage. VOR roughness exists o mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY RDO: VORTAC unusable beyo 40 nmi below 19,000′ MSL 010–020°; below 20,0 MSL 020–030°; below 23,000′ MSL 030–060°; bel 24,000′ MSL 060–080°; below 19,000′ MSL 080–09 below 17,000′ MSL 095–125°; below 16,000′ MSL 12 140°; below 16,000′ MSL 195–210°; below 10,0 MSL 280–290°; below 16,000′ MSL 350–010° acct duced coverage.

VERMONT

BURLINGTON RDO: VOR unusable beyond 35 n from 080° clockwise to 105°; 25 nmi 115–135°; 30 n 135–155° at MOCA.

MONTPELIER RDO: VOR unusable beyond 30 n 205–220°; beyond 25 nmi 220–235°; beyond 30 n 234–280° at MOCA.

VIRGINIA

BROOKE RDO: TACAN distance unusable beyond 30 nmi 230° clockwise to 270° MOCA.

HERNDON RDO: VOR portion of VORTAC unusable below 2500′ MSL. Beyond 30 nmi from 050–075°; beyond 20 nmi from 075–095°; beyond 35 nmi from 105°–120°; beyond 20 nmi from 165°–215° acct of crs roughness. V39 E 209° usable 5000′ and above beyond 20 nmi.

LAWRENCEVILLE RDO: VOR unusable below 1800′ MSL beyond 8 nmi 215–250°; 14,500′ MSL to 18,000′ MSL 215–270° account roughness. MEA V–155 3000′ MSL btn LVL VOR and Franklinton, N.C. Int. MEA V–454, 5000′ MSL btn LVL VOR and LIB VOR. Changeover point 82 nmi from LIB VOR.

LINDEN RDO: DME unusable below 3500′ beyond 25 nmi 140–180°; below 5000′ 180–225° acct reduced coverage.

MONTEBELLO RDO: VOR unusable 110–220° beyond 35 nmi at MOCA. 058 rad unusable above 14,500′.

PULASKI RDO: VORTAC unusable beyond 35 nmi from 045° clockwise to 060° at MOCA.

QUANTICO MCAS RDO: Use LFR as H facil only.

ROANOKE RDO: Woodrum VOR unusable beyond 30 nmi from 360 to 285°, 20 nmi 286–360° at MOCA. H facil unusable beyond 40 nmi from 240 to 010° below 6000′ due excessive needle oscillation.

WASHINGTON

BELLINGHAM RDO: Intermittent roughness may be observed on V–23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

DEAH BAY RDO: H facil unusable 100–130° below 8500′ MSL acct terrain.

OLYMPIA RDO: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–280° account reduced coverage. VOR 348° rad unusable below 4500′ MSL beyond 24 nmi.

PASCO RDO: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270° acct reduced coverage. Coverage within R–6715 from 270–320° not flt checked.

PORT ANGELES RDO: VOR coverage 40 nmi; 220–110° at 7000′; 110–140° at 14,500′; 140–150° at 20,500′; 150–170 °at 29,000′; 170–190° at 20,500; 190–220° at 16,000′.

SEATTLE RDO: LFR NW crs has splits and multiples beyond 20 nmi. VOR unusable beyond 10 nmi 158° clockwise 165°. 309° rad unusable below 14,000 within 40 nmi.

WALLA WALLA RDO: VOR coverage at 40 nmi restricted below 6000′, 355–020° and 148–176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110–130°; below 12,700′ from 065–110°.

WENATCHEE RDO: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020° beyond 30 nmi below 20,000′ MSL 020–075° beyond 40 nmi below 14,000′ MSL 075–090° below 18,000′ MSL 090–190° below 19,000′ MSL 190–240°.

WEST VIRGINIA

BECKLEY RDO: VOR unusable beyond 20 nmi 325–350° below 5000′ acct crs roughness, excluding 335° rad at Montgomery Int. Voice reception Charleston FSS unreliable below 7500′ MSL 40 nmi radius Beckley VOR 030–180°. Reception satisfactory with acft over VOR or MEA.

WISCONSIN

LA CROSSE RDO: VOR unusable 100–150° and 230–060° below 3300′ MSL beyond 20 mi.

MILWAUKEE RDO: Timmerman VOR unusable beyond 35 mi 300–310° below 3400′ MSL acct reduced coverage. Alarm status MKE VOR indicated by transmission of unkeyed 1020 cycle ident signifying unusability for nav and indicating imminent equipment transfer shutdown.

WYOMING

BOYSEN RESERVOIR RDO: VORTAC has mementary crs excursions and roughness all radials.

DUNOIR RDO: VOR restricted to awy rad use only.

SHERIDAN RDO: VORTAC unusable below 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 300–230° acct reduced coverage.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed) bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); an altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexandria, La. England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr (Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Atlanta, Ga.: Lctn #1—012°; over end rnwy 09. Lctn #2—020°; over end rnwy 27.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°: over LFR, 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 145°; N end of rnwy 16–34; 660′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont. (Municipal): 073°; Intersection of rnwys 4–22 and 9–27; 4600′.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Boise, Idaho (Air Trml): 086°; over dam outlet S en Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brownsville, Tex. (Rio Grande Valley Intl): 244°; wat twr in bldg area of arpt.

Brownwood, Tex: 167°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating be con.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burlin ton Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control tr 4.4 nmi from VOR; 2000′.

Butler, Mo.: 073°; over FSS bldg.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnw 21–25–30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr.: 014°; railroad intersection 1.5 nmi N ar bndry.

Champaign, Ill.: 175°; over grain elevator 8 nmi S Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cle land LFR distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over mic wave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corr of Red Bank, N.J. Arpt.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 n E of arpt.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Ar

Crescent City, Calif. (McNamara Fld): 104°; over Tar farm E side of town; 1000′.

Crestview, Fla.: 104°; over center of arpt; 900′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over me hangar.

Cut Bank, Mont.: 312°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 a 17; 1700′.

Daytona, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

Daytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

Decatur, Ala. (Pryor): 092°; over intersection of rnwy and taxiway 236° from HSV; 1000′.

Delta, Utah: 346°; at apch end of rnwy 34; 4900′.

Denver, Colo.: 189°; over EGW rdo bcn; 5800′.

Des Moines, Iowa: 356°; center twr of DSM LFR, 4.2 nmi from VOR.

Douglas, Ariz. (Bisbee-Douglas Intl): 119°; over intersection rnwy 12–30 and 17R–35L; 4700′.

Dublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

Eagle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

Dermott, Ark. (Goodwin): 228°; trml bldg E side of arpt.

Ellensburg, Wash. (Bowers): 255°; center, W end of rnwy 7-25; 2300′.

Emporia, Kans.: 046°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

Ephrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

Evergreen, Ala.: 100.7°; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nmi from VOR.

Fargo, N.Dak. (Hector): 300°; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300′.

Fayetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500′.

Fayetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nmi; 1200′.

Fresno, Calif.: 210°; at CAV rdo bcn 1800′.

Fremont, Ohio: 048°; over the Ohio Oil Company Admin Bldg at 2000′; aprxly 5 nmi from FDY VOR.

Frost, Mich. (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

Glenwood Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

Fort Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nmi from transmitter.

Fort Smith, Ark.: 232°; water tank at N edge of arpt; 1800′.

Garberville, Calif.: 358°; over intersection of rnwys Arcata Arpt; 500′.

Garberville, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

Gardena, Calif. (Air Trml): 133°; over apch end rnwy 11; 500′.

Garber, Okla.: 094°; over LFR; 3000′.

Galveston, Tex.: 110°; arpt terminal bldg.

Garden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 1000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR; 2000′.

Grand Forks, N. Dak.: 315°; over Int N/S and E/W rnwys; 1900′.

Grand Island, Nebr.: 141°; over smoke stack 5.5 nmi from VOR; 3100′.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

Great Falls, Mont.: 026°; center NE end rnwy 3–21; 3900′.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 149°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt.

Hayes Center, Neb.: 258°; 28 nmi over center of town of Enders, Neb.; 4500′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 23 nmi from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Huron, S. Dak. ((Howes): 153°; lctd over HON/SBH; 2000′.

Hutchinson, Kans.: 032°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Jackson, Miss. (Hawkins): 189°; over arpt intersection of rnwys 11–29 and 34L–16R.

Jackson, Tenn. (McKellar): 267°; over bcn twr above arpt; 1000′.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Tex.: 320°; water twr N of arpt.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Marysville, Calif. (Yuba County): 067°; intersection of rnwys; 1500′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000′.

Miles City, Mont.: 30°; to apch end of rnwy 4.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis. (General Mitchell); 123°; over MKE LFR.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys; 2500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

Muskegon, Mich. (County): 256°; over Muskegon LFR 1500′.

Myrtle Beach, S.C. (AFB): 061°; over apch end rnwy Crescent Beach Arpt.; 500′.

Napa, Calif. (County): 045°; over rotating bcn on arpt 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi N of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa 2500′.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

NewBern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy arpt.

New Orleans, La. (Mun): 081°; over rotating bcn on bldg on New Orleans Mun Arpt.

New Orleans, La. (Lakefront Arpt): 070°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

North Platte, Nebr. (Lee Bird): 82.6°; over water tower Brady, Nebr.; 4000′.

Oklahoma City, Okla. (Will Rogers): 100°; rdo bcn sta 1800′.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR on rnwys 17–35 and 12–30; 1800′.

Omaha, Nebr. (Eppley Fld): 309°; centerline of SE end of NW/SE rnwy.

O'Neill, Nebr.: 115°; at intersection of E/W road and railroad ½ nmi SE of Inman, Nebr.

Ontario, Calif. (Intl: 347°; over and parallel with twy btn rnwy 21 and 25; 2300′.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 5 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair C Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 33

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar Southern Pines, Pinehurst-Southern Pines Arpt.

Pittsburgh, Pa.: 333°; ctl twr, Greater Pittsburgh Arpt 3000′.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4– and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 150

Pocatello, Idaho: Lctn #1—031°; over apch end of rnw #3; 5450′. Lctn #2—029°; over intersection or rnways 21 and 25; 5450′.

Pontiac, Mich. (Municipal): 113°; over circle of stones SE corner of arpt; 2000′.

Portland, Oreg.: (Intl): 162°; intersection 2 and discontinued 29; 1000′.

oughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.

rescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

rosque Isle, Me.(AFB): 184°; Sprague ville LFR site; 2000′.

rincenton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

ueblo Colo. (Pueblo Mem'l): 294°; over KCSJ TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

uaski, Va.: 066°; bldg on S side of E/W rnwy at VPI Arpt., Blackburg, Va.; 4000′.

ullman, Tex.: 241°; water tank, town of Alba, Tex.

rwlins, Wyo.: 065°; (Cherokee VOR), 17 nmi; 7300′.

ymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

d Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 500′.

inelander, Wisc. (Drott Arpt): 210°; over rnwy Int; 2500′

rrhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

ne, Ga.: (Russell Fld): 348°; over apch end (10.8 nmi); 1600′.

swell, N. Mex.: 027°; over apch end rnwy 3; 400′.

yston, Ga.: 067°; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt; 1250′.

well, Kans.: 091°; over water twr in center of town of Wilson, Kans.

cramento, Calif.: 015°; apch end rnwy 02; 100′.

Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

ina, Kans.: 115.5°; over town of Kipp, Kans., 12 nmi from VOR and 6 nmi SE of Mun Arpt.

t Flat, Tex.(8A, ELP–FTW): 335°; over the LFR.

t Lake City, Utah: 158°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

nville, Ill.: 064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

lt Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

re, Okla. (Mun): 175°; over rot bcn twr; 3000′.

ridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 4.9 nmi; 4500′ MSL.

veport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

veport, La. (Greater Shreveport): 175°; over the Admin Bldg.

ton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

ithwick, S. Dak.: 300°; on Hot Springs, S. Dak. Arpt at intersection E/W taxiway and N/S rnwy.

th Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

kane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

vens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

dden, Calif.(Mun): 299°; over water twr adjt to S side of arpt; 1000′.

phur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over Anniston, Ala. Arpt.

Tallahassee, Fla. (Mun): 241°; over twr on arpt.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 123°; over rdo bcn; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Thief River Falls Minn.: 129°; over RR & hiway crossing adj Hazel, Minn.; 2000′.

Thurman, Colo.: 349°; in flt over Akron VOR transmitter site; 5600′.

Topeka, Kans. (Philip Billard): 073°; at hiway intersection 1.5 nmi SE McLouth, Kans.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 006°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.

Waco, Tex.: 139°; over the dam of Lake Waco.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 320°; over ctl twr, Toledo Express Arpt, and 11.3 nmi from VOR; 2000′.

Waterville, Ohio: 320°; over ctl twr, Toledo Express Bldg Bowling Green, Ohio-University Arpt, aprxly 4.0 nmi from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

Wichita, Kans.: 161°; centerline of NW end of NW/SE rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11; 2600′.

Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2200′

Willows, Calif. (Willows-Glenn): 346° Maxwell VOR; over large green hangar NE side of arpt; 1000′.

Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 0.5 nmi.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C.: 295°; over ctl twr.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Tex.: 320°; water twr N of arpt.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Marysville, Calif. (Yuba County): 067°; intersection of rnwys; 1500′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000′.

Miles City, Mont.: 30°; to apch end of rnwy 4.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis. (General Mitchell); 123°; over MKE LFR.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys; 2500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, di tance 6.1 nmi from VORTAC.

Muskegon, Mich. (County): 256°; over Muskegon LF 1500′.

Myrtle Beach, S.C. (AFB): 061°; over apch end rnwy Crescent Beach Arpt.; 500′.

Napa, Calif. (County): 045°; over rotating bcn on arp 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi N of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwoo Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iow 2500′.

Neosho, Mo.: 343°; center triangle formed by the int section of 3 rnwys of Joplin, Mo., Mun Arpt.

NewBern, N.C.: 259°; Int of E/W rnwys Oak Grove (nav arpt.

New Orleans, La. (Mun): 081°; over rotating bcn t bldg on New Orleans Mun Arpt.

New Orleans, La. (Lakefront Arpt): 070°; over Lakefro twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stant Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

North Platte, Nebr. (Lee Bird): 82.6°; over water t Brady, Nebr.; 4000′.

Oklahoma City, Okla. (Will Rogers): 100°; rdo bcn st 1800′.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR i rnwys 17–35 and 12–30; 1800′.

Omaha, Nebr. (Eppley Fld): 309°; centerline of SE e of NW/SE rnwy.

O'Neil, Nebr.: 115°; at intersection of E/W road and t railroad ½ nmi SE of Inman, Nebr.

Ontario, Calif. (Intl: 347°; over and parallel with t btn rnwy 21 and 25; 2300′.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 33

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar Southern Pines, Pinehurst-Southern Pines Arpt.

Pittsburgh, Pa.: 333°; ctl twr, Greater Pittsburgh Ar 3000′.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4 and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 15

Pocatello, Idaho: Lctn #1—031°; over apch end of rn #3; 5450′. Lctn #2—029°; over intersection or r ways 21 and 25; 5450′.

Pontiac, Mich. (Municipal): 113°; over circle of stones SE corner of arpt; 2000′.

Portland, Oreg.: (Intl): 162°; intersection 2 and disc tinued 29; 1000′.

oughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500′.
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hreveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.
hreveport, La. (Greater Shreveport): 175°; over the Admin Bldg.
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Syracuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.
Talladega, Ala.: 029°; over Anniston, Ala. Arpt.
Tallahassee, Fla. (Mun): 241°; over twr on arpt.
Terre Haute, Ind. (Hulman): 220°; int of NE/SW and NW/SE rnwy; 2000′.
Texarkana, Ark.: 123°; over rdo bcn; 1000′.
Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.
Thief River Falls Minn.: 129°; over RR & hiway crossing adj Hazel, Minn.; 2000′.
Thurman, Colo.: 349°; in flt over Akron VOR transmitter site; 5600′.
Topeka, Kans. (Philip Billard): 073°; at hiway intersection 1.5 nmi SE McLouth, Kans.
Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.
Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.
Tucson, Ariz.: 258°; main rnwy intersection; 2800′.
Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.
Valdosta, Ga.: 006°; over lgt bcn E side of arpt.
Vandalia, Ill.: 179°; centerline at N end N/S rnwy.
Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.
Waco, Tex.: 139°; over the dam of Lake Waco.
Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.
Waterville, Ohio: 320°; over ctl twr, Toledo Express Arpt, and 11.3 nmi from VOR; 2000′.
Waterville, Ohio: 320°; over ctl twr, Toledo Express Bldg Bowling Green, Ohio-University Arpt, aprxly 4.0 nmi from VWV VOR; 2000′.
West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.
Wichita, Kans.: 161°; centerline of NW end of NW/SE rnwy.
Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.
Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.
Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11; 2600′.
Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2200′
Willows, Calif. (Willows-Glenn): 346° Maxwell VOR; over large green hangar NE side of arpt; 1000′.
Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.
Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.
Winner, S.D. (Mun): 201°; over center of race track 0.5 nmi.
Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.
Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.
Winston-Salem, N.C.: 295°; over ctl twr.

Worland, Wyo. (Municipal): 010° Boysen Reservoir VOR-TAC; over taxi strip between Trml Bldg and rnwy 16–34; 5200′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 256°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl): 166°; centerline rnwy 17–35; 400′.

GROUND

Aberdeen, S. Dak. (Saunders); 304°; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN): 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt): 003°; Send on curve of taxiway 50′ W apch end rnwy 35 centerline.

Andersen, S.C. (Mun): 038°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun): 045°; adjt to S end of NS rnwy.

Atlantic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l): Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips): Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

Bemidji, Minn: 130°; SE corner of Trml ramp.

Big Spring, Tex. (Howard County): 142°; NW corner of taxistrip to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismark, N. Dak.: 275°; intersection of N/S taxi strip and the apch end of rnwy 13.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 021°; taxiway in front of Admin Bldg.

Bradford, Pa. (McKean Co. Arpt): 323°; NE txwy 28 from rnwy 32 centerline.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in fro of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; ap end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and t bldg on ramp.

Chattanooga, Tenn. (Lovell): 332°; centerline S taxiw at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 199°; on yellow line on taxi strip i mediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; nmi on SW corner of N parking ramp at int of tx to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at c ter taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp Easterwood Arpt.

Columbia, S.C. (Owens Fld): 022°; compass rose on pa ing ramp.

Columbia, S.C. (Mun): 331°; circle 450′ S of ctl twr 244′.

Columbus, Ga. (Muscogee Co.): 145°; pointed circle end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center ta way between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E intersection rnwys 27 and 22.

Crestview, Fla.: 104°; on center of concrete circle on rn

Cross City, Fla. (Site 58, MEM–TPA): 298°; taxiw near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison): 159°; intersection of center a parallel taxiways.

Danville, Va. (Mun); 338°; S of trml bldg center of int section of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy a N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/ rnwy.

Dothan, Ala. 186°; intersection of ramp and taxi st NW of trml bldg.

Dubuque, Iowa: 335°; on ramp in front of terminal bl

Duluth, Minn.: 012°; center of intersection formed by t strips leading to rnwys 31 and 2 just off SE corner ramp.

Duncan, Okla. (Halliburton Fld): 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and cen taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi st near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W Admin Bldg.

Elizabeth City, N.C. (CGAS): Lctn #1—028°; lctd on ta way leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–

Elmira, N.Y. (Chemung County): 066°; midpoint of sh taxistrip between rnwy 10 and 6 at W side of ar

aprxly 198' S of C/L rnwy 10 and 374' N of C/L rnwy 6.

ie, Pa. (Erie-Port Erie): 059°; txwy apchg rnwy 6.

ene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Amin Bldg.

ersville, N.C. (Grannis): 305°; on rnwy turnoff in front of ctl twr.

ence, S.C.: 235°; on taxiway W of the end of rnwy 18.

ne Leaning, Ga. (Lawson AAF): Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—019°; run up area on txwy W ctl twr at intersection or rnwy 02-20 and 14-32. Lctn #3—055°; run up area on txwy S of ctl twr at junction with rnwy 14. Lctd #4—130°; run up area on txwy at apch end of rnwy 32.

ne Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Lauderdale, Fla (Hollywood Intl Arpt): 120°; on ramp in front of Trml Bldg.

ne Myers, Fla. (Page): 172°; N side of Trml ramp.

ne Riley, Kans. (Marshall AAF): 030°; on SE corner of tie down area and taxiway apchg rnwy 4.

ne Rucker, Ala. (Cairns AAF): Lctn #1—019°; run up area on txwy apch end rnwy 13. Lctn #2—035°; NW of Int rnwy 13 and 18. Lctn #3—040°; run up area on txwy Int rnwy 13 and 18. Lctn #4—059°; run up area on txwy N of apch end rnwy 26. Lctn #5—063°; run up area on txwy S apch end rnwy 26. Lctd #6—058°; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078°; run up area on txwy W of apch end rnwy 36. Lctn #8—062°; on run up area txwy N of apch end rnwy 6.

ne Stockton, Tex.: 116°; on ramp N of terminal.

Nahore, N.C. (Seymour Johnson AFB): 028°; run up pad at apch end rnwy 8.

ne Bay, Wis. (Austin-Straubel): 141°; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

nwood, Miss.: 060°; central taxiway adj to ramp.

nwood, S.C. (County): 251° on taxiway apch end of rnwy 9.

Sport, Miss.: 098°; on arpt.

nson, Ark.: 131°; Int taxiway and ramp.

ne, Mont. (City-Co.); taxiway adj to apch end rnwy 26.

bs, N. Mex. (Lea County): 060°; on runup pad apch end rnwy 3.

e Springs, Ark.: 245°; taxiway adj to rnwy 5.

nton, Tex.: 292°; NE end rnwy 12.

nnis, Mass. (Barnstable Mun): 243°; lctd on rnwy apron for rnwy 24.

ne Falls, Idaho (Fanning Fld): 007°; junction of N/S txwy and rnwy 16-34, at NE corner of arpt.

ca, N.Y. (Tompkins Co.): 202°; at bend in txwy, 375' from centerline of NW/SE rnwy.

nstown, N. Dak.: 258°; junction of taxi strip leading from hangar with SW taxi strip.

nstown, Pa. (Cambria County): 155°; taxiway to rnwy 33.

Junction, Tex. (Kimble County): 143°; N edge of parking ramp.

Key West, Fla. (Boca Chica): 091°; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l): 131°; NW portion of ramp.

Kinston, N.C. (Stallings): 230°; 500' in front of Admin Bldg.

Klamath Falls, Oreg.: 294°; 154' N of txway in front of Admin Bldg., and 36' from E edge of ramp.

Lafayette, La.: Lctn #1—350°; on taxiway at N end N/S rnwy. Lctn #2—343°; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106°; on compass rose at taxi strip intersection aprxly 500' due S of Admin Bldg.

Lancaster, Pa.: Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City): 053°; center of apch end rnwy 5.

Laramie, Wyo. (Brees): 100°; on loading ramp.

Laredo, Tex. (AFB): Lctn #1—137°; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131°; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315°; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld): 351°; on run-up area W side rnwy 19.

Las Vegas, N. Mex.: 231°, concrete ramp N of FSS Bldg.

Lawton, Okla.: 349°; on trml apron at the point intersecting the S taxi strip.

Little Rock, Ark. (Adams): 314°; on taxi strip adj to junction rnwy 14.

Longview, Tex. (Gregg County): 125°; txwy adj to rnwy 13 to end of rnwy 13.

Louisville, Ky. (Bowman): 329°; taxiway W of rnwy 1.

Louisville, Ky. (Standiford): 301°; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 111°; W edge of ramp N of trml bldg.

Lufkin, Tex.: (Angelina Co. Arpt): 328°; Intersection of ramp and taxiway in front of Trml Bldg.

Mansfield, Ohio (Mun): 133°; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine): 108°; S edge of ramp in front of FSS.

Marianna, Fla.: 310°; ESE end taxiway 6.

Marshall, Tex. (Harrison Co Arpt): 318°; Int of E and N/S taxiway in front of N ramp.

Martinsburg, W. Va.: 281°; near apch end of rnwy 35.

Mason City, Iowa: 356°; on centerline S end of N/S rnwy.

McAlester, Okla. (Mun): 350°; taxistrip at terminal ramp.

McAllen, Tex. (Miller Int'l): Lctn #1—040°; at intersection E/W txwy and N/S txwy. Lctn #2— 012°; in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie): 146°; 220' E of FSS.

Meridian, Miss. (Ky): 121°; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml): Lctn #1—188°; center of warm up pad for rnwy 10. Lctn #2—178°; int txwy C and ramp in front of Trml Bldg.

Mineral Wells, Tex.: 307°; intersection of txwy and NW rnwy.

Missoula, Mont. (County): 340°; 5' from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates) : 108° ; apch end of rnwy 9.
Monroe, La. (Selman) : 033° ; arpt ramp in front of twr structure adj to the txwy leading to intersection of rnwys 17–35 & 4–22.
Muscle Shoals, Ala.: 289° ; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.
Nantucket, Mass. (Memorial) : 241° ; taxiway apchg rnwy 24.
Needles, Calif. (Site 25B, LAX–AMA) : 253° ; on ramp in front of Admin Bldg.
New Bern, N.C.: 088° ; on compass rose at ramp.
New Orleans Intl, La. (Moisant Fld) : 235° ; center of perimeter txwy 100′ S of rnwy 10.
Norfolk, Va. (Mun) : 031° ; center of txwy "E", 250′ NW of centerline of rnwy 22.
Oakland, Calf. (Metro-Oakland Int'l) : 081° ; middle of pad between rnwys 27L and 27R.
Olympia, Wash.: 347° ; on ramp in front of Admin Bludg.
Orlando, Fla. (Herndon) : 300° ; midpoint of N/S taxiway on W bndry of arpt.
Paducah, Ky. (Barkley) : 040° ; on txwy apchg end of rnwy 22.
Palacious, Tex.: 119° ; intersection NW end NW/SE rnwy and S txwy strip.
Panama City, Fla. (Bay Co. Arpt) : 195° ; N/S txwy 1050′ N or Term bldg.
Paris, Tex. (Cox Fld) : 348° ; intersection of N/S and E/W txwys.
Parkersburg, W. Va. (Wood County) : Lctn #1—209° ; run-up area N side of rnwy 28. Lctn #2—207° ; on txwy near intersection rnwys 16 and 21.
Pasco, Wash.: 020° ; S of int ofN/S txwy and rnwy 20L.
Paso Robles, Calif.: 248° ; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.
Pecos, Tex. (Mun) : 133° ; on ramp adj to center taxiway.
Pellston, Mich. (Emmet Co.) : 239° ; intersection of centerlines of N/S rnwy and E/W txwy of arpt.
Pendleton, Oreg.: 076° ; 200′ W of Admin Bldg.
Peoria, Ill. (Greater Peoria) : 098° ; at SW corner of service ramp E side of fld.
Philadelphia, Pa. (North Philadelphia) : 215° ; on taxi strip between ramp and rnwy 10.
Phillipsburg, Pa. (Black Moshannon-State) : 252° ; rnwy intersection.
Pierre, S. Dak.: 250° ; in front of municipal hangar.
Pine Bluff, Ark. (Grider) : 179° ; center txwy at junction N/S rnwy.
Ponca City, Okla.: 101° ; taxi strip at junction to trml ramp.
Pontiac, Mich.: 114° ; center of warmup pad S of apch end rnwy 27.
Pueblo, Colo.: 244° ; painted circle with arrow on ramp W of Admin Bldg.
Quincy, Ill. (Quincy-Baldwin Fld) : 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.
Raleigh, N.C.: 244° ; end rnwy 5.
Rapid City, S. Dak.: 320° ; in front of Admin Bldg adj to center taxi strip.
Raymond, Nebr. (Lincoln AFB/Mun) : 174° run up pad of rnwy 35R along centerline of N/S txwy.
Redding, Calif. (Mun) : 310° ; intersection txwy and rnw 12.
Redmond, Oreg.: 066° ; on ramp in front of Admin Bl 60′ W of centerline of txwy to rnwy 10–28.
Reno, Nev.: 240° ; lctd on concrete runup mat for rnwy 1
Riverton, Wyo. (Mun) : 178° ; txwy between Admin Bl and rnwy.
Roanoke, Va. (Woodrum) : 099° ; filled area rnwy 27.
Rochester, Minn.: 030° ; of taxiway that enters apch e of rnwy 31.
Rochester, N.Y. (Monroe Co.) : 149° ; on ramp in front ctl twr 415′ from centerline rnwy 1–19 and 305′ fr centerline of rnwy 7–25.
Rock Springs, Wyo.: Lctn #1—266° ; in center of tu around E end rnwy 25. Lctn #2—261° ; in cen of turn-around W end rnwy 7.
Rockford, Ill.: 112° ; apex of txwys at center of arpt.
Rocky Mount, N.C.: 263° ; right 3 rnwy 33, marker.
Rome, Ga. (Russell Fld) : Intersection of taxiways 2 S of the terminal bldg.
Saginaw, Mich. (Tri-City) : 280° ; lctd on NE parki ramp 12′ from field edge near center txwy.
St. Paul, Minn., (Downtown Arpt) : 291° ; over drain center of int parking ramp and taxiway in front trml bldg.
St. Petersburg, Fla. (Pinellas County Int'l) : 255° ; park ramp 500′ SE of ctl twr.
St. Thomas, V.I. (Charlotte Amalie, Truman) : 118° ; center point of arpt txwy on line 3 mi WNW.
Salinas, Calif. (Mun) : 257° ; rgt shoulder rnwy 21, direc in front of trml bldg.
Salisbury, Md. (Salisbury-Wicomico County) : 243° ; ra front of ctl twr.
San Angelo, Tex. (Mathis) : 236° ; E edge of ramp in fr of twr.
San Antonio, Tex. (Stinson Mun) : Lctn #1 ; 329R, run area at apch end rnwy 9. Lctn #2 : 335R, on W ramp opposite hangars 1 and 2.
San Jose, Calif. (Mun) : 095° ; on ramp in front of t bldg.
San Juan, Puerto Rico (Intl) : 081° ; lctd on taxiway trml bldg.
Santa Barbara, Calif.: 198° ; gate 2 in front of trml b over Figure 2 painted on apron.
Santa Catalina, Calif.: 346° ; SW corner apch end rnw Santa Catalina Arpt.
Santa Fe, N. Mex. (New Municipal) : 334° ; at junct main intersection txwy and ramp.
Sarasota, Fla. (Bradenton) : 172° ; on ramp 800′ N t bldg.
Scottsbluff, Nebr. (Mun : 240° ; NE edge ramp oppo trml bldg and W of txwy leading to rnwy 30 apr 3000′ from apch end.
Seattle, Wash. (Seattle-Tacoma Int'l) : 028° ; 30′ near e of ramp S and W of Admin Bldg.
Sioux City, Iowa: 314° ; painted circle directly in front new twr.
Sioux Falls, S. Dak.: 148° ; in line with E edge of txwy of ctl twr, 75′ S from N edge of parking ramp.
South Bend, Ind. (St. Joseph Co.) : 178° ; center of west N/S txwy 200′ N of N edge of trml ramp.

partanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

pringfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

pringfield, Mo.: 191°; at bend in N/S txwy 400' S of N end of taxi strip.

inson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

rmal, Calif.: 328°; ramp 250' in front of hangar.

peka, Kans. (Philip Billard Arpt): 212°; N/S taxiway W of tetrahedron.

uth or Consequences, N. Mex.: 155°; on SE/NW txwy adj to wind cone.

cumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100' off end of rnwy 8.

scaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

in Falls, Idaho (Joslin): 030°; on parking strip apron 300' SW of Admin Bldg.

re Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11-29.

hy, Mo.: 241°; on center line of NE/SW rnwy 125' from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 050°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12-30.

Wausau, Wis. (Alexander): 338°; 100' N of wind tee, 30' from S edge of concrete trnl ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngtown, Ohio: 182° compass rose end of rnwy 18.

Zanesville, Ohio: 010°; on arpt 270' NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with Agency Order AT 7100.14A)

Airports	*Runways*	*Departure Procedures*	*Traffic Pattern Alts.*
Atlanta, Ga.	9, 27	No turns until 3 mi, 2500′ for *large acft.	
	15, 21	No turns by *large acft over more populated areas until 3 mi, 2500′.	
Betts AAF, Tobyhanna Supply Depot, Pa.	14	Right hand tfc pattern.	
Burlington Mun., Vt.		Single engine.	1140′ MSL
		Multi engine.	1340′ MSL
Caldwell-Wright, Fairfield, N.J.	27	Acft shall not start crosswind leg until well past the school lctd ¼ mi to the right of the extended rnwy centerline and ¼ mi from the arpt.	
	32	Acft shall bear right as soon as practicable after take-off to avoid flying over the Fairfield township school lctd ¼ mi NW of arpt and slightly left of the extended rnwy centerline.	
Chicago–Midway, Ill.		Turbine powered acft climb as rapidly as possible.	2000′ AGL
Chicago–OHare I'ntl Arpt., Ill.		Turbine powered acft climb as rapidly as possible.	2000′ AGL
Gardner, Kans.	East	Recommend alt not above 400′ AGL until cross-wind leg northbound. Exit pattern NW to remain clear of tfc patterns of Olathe NAS, 3.5 mi NE.	
Jennings Arpt, La.	13, 17, 22	Right hand tfc pattern.	
Kansas City Fairfax Mun., Kans.		Acft under 12,500 lbs.	600′ AGL
Lake Charles, La.	15, 22	Right hand tfc pattern. 1000′ slow acft pattern; 1500′ turbine powered fixed-wing acft.	
New York, LaGuardia	13	Rgt turn and proceed over Flushing Meadow Park before turning on course.	1500′
San Antonio, Tex., Stinson Arpt	9, 14, 22	Right hand tfc pattern. 800′ AGL light or slow acft. 1500′ AGL, heavy or fast acft.	
Torrance Mun., Calif.	11L	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 45 degrees from the runway departure heading and continue climb.	
	11L	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 90 degrees to the departure runway heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the right of the cross wing leg course.	
	11R	All aircraft—Climb on departure rnwy heading to 1500′.	

* Large acft—acft weighing over 12,500 lbs maximum certificated take-off weight.

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
	29R	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 45 degrees from the runway departure heading and continue climb.	
	29R	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 90 degrees to runway departure heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the left of the cross wind leg course.	
	29L	All aircraft—Upon reaching an altitude of of 500 feet MSL, make left turn from the departure runway heading to intercept an area approximately over the Pacific Coast Highway, then proceed in a westerly direction until reaching 1,500 feet MSL or the shoreline.	
Wilkes-Barre Scranton, Avoca, Pa.	16, 22	Right hand tfc pattern.	
Winona, Minn., Max Conrad Fld		Right tfc NW.	

FLIGHT SERVICE STATION (FSS)

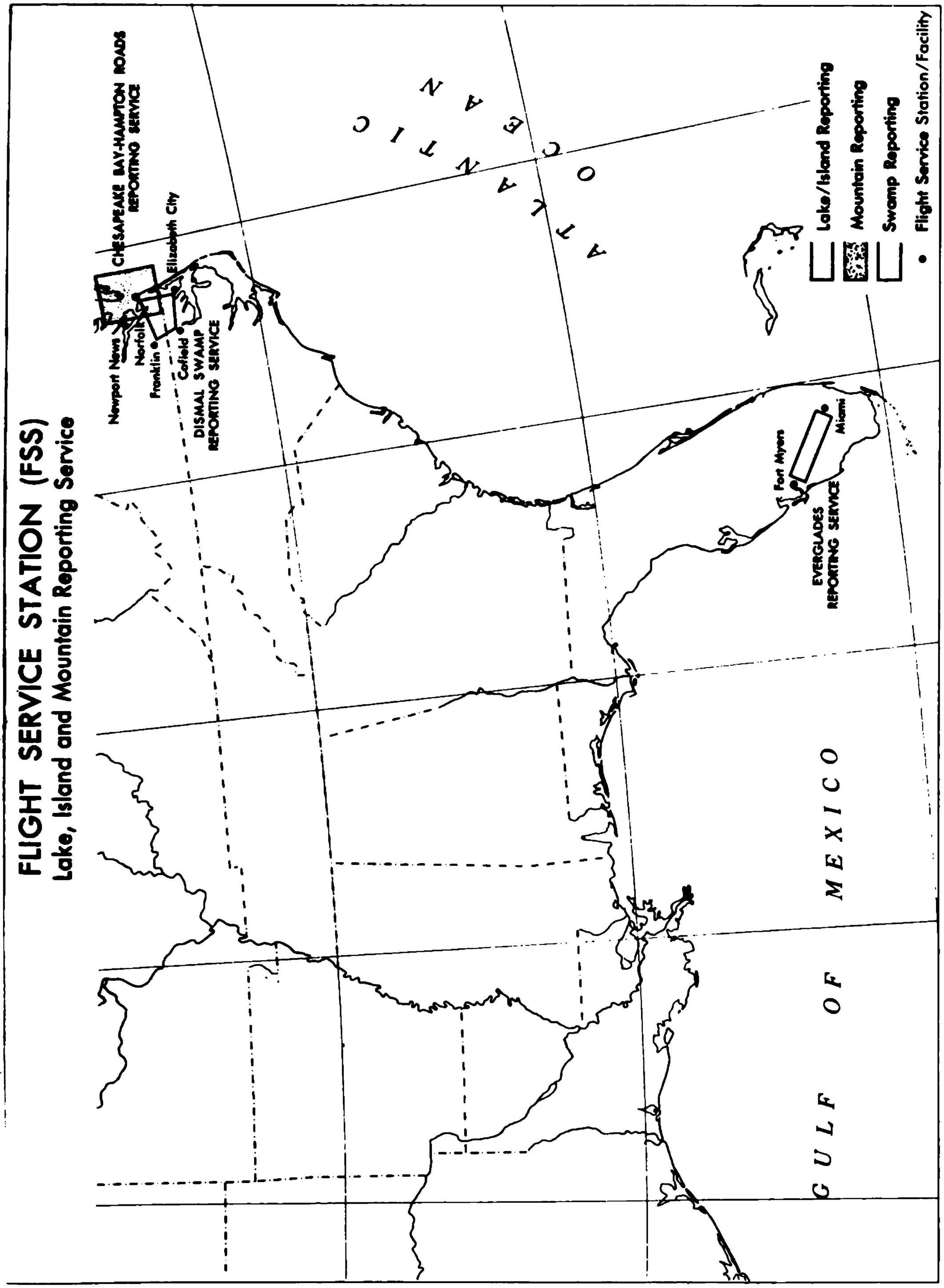
Lake, Island and Mountain Reporting Service

This service provides flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.

Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface", "Overlake", etc., are indicated on the following charts. To obtain this service, contact the FSS by telephone or radio giving present position, type aircraft, altitude, indicated airspeed, proposed route of flight, and mainland estimate.

After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.

FLIGHT SERVICE STATION (FSS)
Lake, Island and Mountain Reporting Service



ROCKY MOUNTAIN REPORTING SERVICE

This service is available to aircraft operating VFR (with or without flight plan) between Denver and Grand Junction via Corona Pass or Monarch Pass. This service can not be offered on an area or random route basis due to the unreliability of communications caused by terrain extremes. The routes via Corona Pass and Monarch Pass have been flight checked and communications found reliable at the altitudes published on the chart.

"Rocky Mountain Reporting Service" shall be available to all VFR aircraft upon request, whether or not operating on a regular flight plan.

REQUIREMENTS

1. Aircraft must be equipped with functioning 2-way radio capable of receiving VOR and transmitting 122.1mc.
2. Pilot must fly prescribed route at an altitude no less than established MRA (Minimum Reception Altitude).
3. Pilot must arrange for accurate time of departure to be received by the FAA facility through which the service was requested.
4. Pilot must radio a position report every ten minutes as follows, whether eastbound or westbound:

   CORONA ROUTE

   To Denver Radio while operating between Denver and Corona Pass (vicinity of Moffat Tunnel, west of Tolland, Colorado).

   To Eagle Radio (through Kremmling VOR) between Corona Pass and vicinity of Glenwood Springs.

   To Grand Junction Radio between vicinity of Glenwood Springs and Grand Junction.

   MONARCH ROUTE

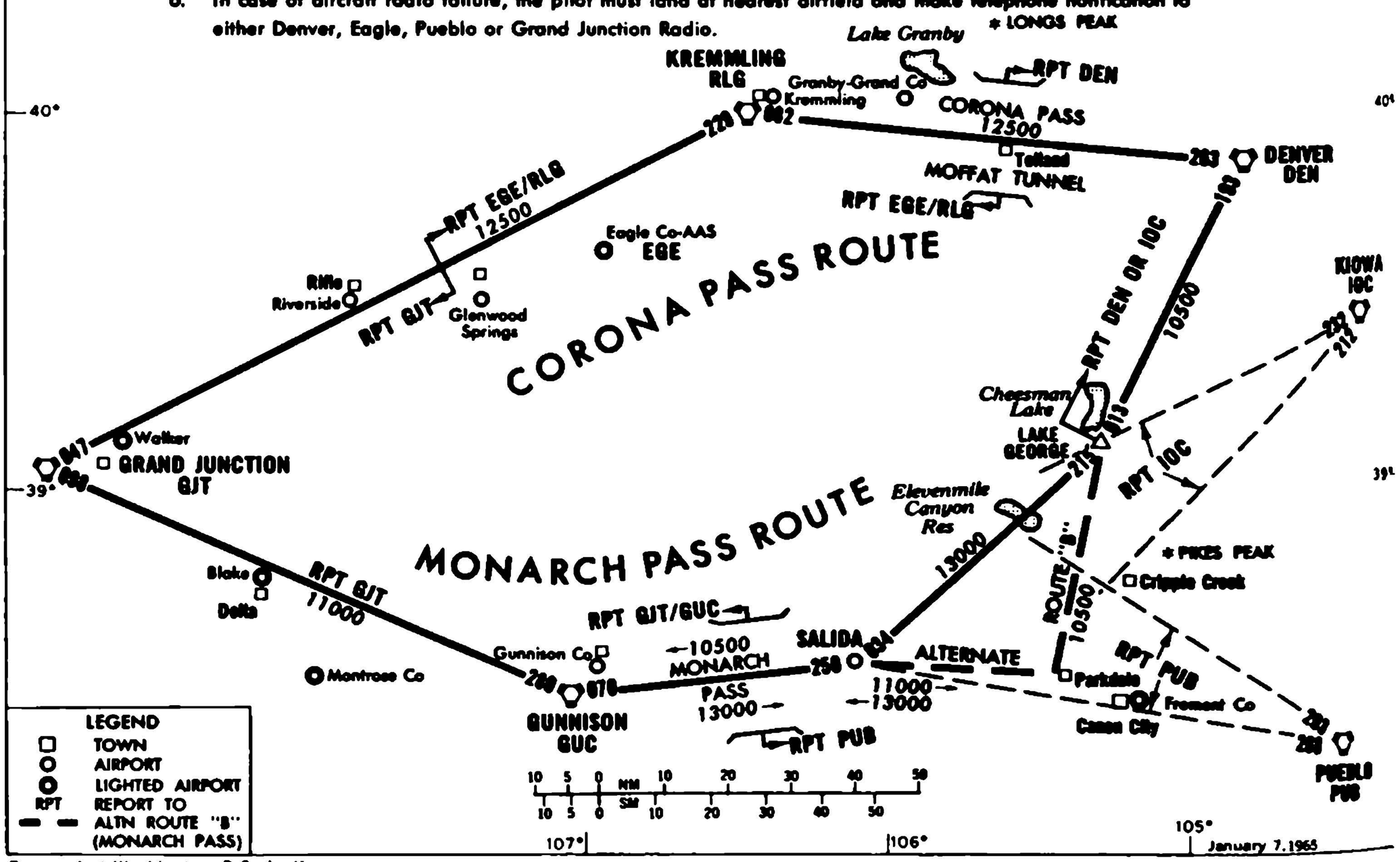
   To Denver Radio (through Denver or Kiowa VOR) between Denver and Lake George Intersection (Cheesman Reservoir). To Denver Radio (through Kiowa VOR only) between the Intersection and Elevenmile Reservoir, or west of Cripple Creek, Colorado.

   To Pueblo Radio between Elevenmile Reservoir or west of Cripple Creek and Salida, Colorado.

   To Grand Junction Radio (through Gunnison VOR) between Salida and Grand Junction.

   Pilots may file for all or any portion of either route, i.e. on a flight from Denver to Grand Junction, a pilot may request the service from Denver to Kremmling only.

   (If contact with the aircraft is lost for more than 15 minutes, Search and Rescue will be alerted.)
5. The service may be terminated at any time upon request of the pilot.
6. In case of aircraft radio failure, the pilot must land at nearest airfield and make telephone notification to either Denver, Eagle, Pueblo or Grand Junction Radio.



Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

SPECIAL NOTICES

Special Notices of a general nature or universal application, and otner than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

MILITARY CLIMB CORRIDORS

ALL FLIGHTS desiring to traverse these areas must obtain prior approval from the Appropriate Authority and maintain continuous listening watch on the appropriate frequency while traversing the corridor. The list of corridors, appropriate authority and frequencies follows:

Corridors	Appropriate Authority	Frequencies
Bangor (Dow AFB) Maine	Dow AFB Apch Ctl	126.2; 363.8; 122.5G
Charleston AFB/Mun., S.C.	Charleston Apch Ctl	119.3; 319.8; 122.5G
Columbus (Lockbourne AFB), Ohio	Columbus Apch Ctl	123.7; 122.5G; 360.6
Falmouth (Otis AFB), Mass.	Otis RAPCON	124.7; 118.2; 122.5G
Glasgow (Glasgow AFB), Mont.	Glasgow AFB Apch Ctl	126.2; 236.6; 122.5G; 363.8
Goldsboro (Seymour Johnson AFB), N.C.	Seymour Johnson Apch Ctl	119.7; 122.5G
Grand Forks (Grand Forks AFB), N.D.	Grand Forks AFB Apch Ctl	118.1; 363.8; 122.5G
Grandview (Richards-Gebaur AFB), Mo.	Olathe RAPCON	363.8; 124.7; 122.5G
Houston (Ellington AFB), Texas	Houston Apch Ctl	118.1; 284.6; 122.5G
Klamath Falls (Kingsley Fld), Ore.	Klamath Falls Apch Ctl	118.5; 381.6
Limestone (Loring AFB), Me.	Loring AFB Apch Ctl	122.5G; 363.8
Madison (Truax Fld), Wisc.	Truax Tower	120.1; 350.3; 122.5G
Marquette Co. (K.I. Sawyer AFB), Mich.	Sawyer Apch Ctl	122.5G; 119.1; 259.3; 363.8
Merced (Castle AFB), Calif.	Castle AFB Apch Ctl	118.9; 122.5G; 379.4
Minot AFB, North Dakota	Minot AFB Apch Ctl	363.8; 118.5; 122.5G
Mt. Clemens (Selfridge AFB), Mich.	Selfridge AFB Apch Ctl	126.2; 363.8; 122.5G
New Orleans (NAS New Orleans), La.	New Orleans Center—5000' & above, IFR	126.0; 323.2
	New Orleans Apch Ctl—VFR	118.1; 122.7G; 248.7
Norfolk (Langley AFB), Va.	Norflk Apch Ctl	350.3; 125.7; 122.5G
Oscoda (Wurtsmith AFB), Mich.	Wurtsmith AFB Apch tl	126.2; 122.5G
Oxnard AFB, Calif.	Ventura Apch Ctl	124.7; 319.2; 122.5G
Portland Intl. Arpt., Oregon	Portland Intl Apch Ctl	124.9; 122.7G; 290.3
Rome (Griffiss AFB), New York	Griffiss Apch Ctl	118.5; 363.8; 122.5G
San Antonio (Kelly AFB), Tex.	San Antonio Apch Ctl	122.5G; 123.9; 126.5; 134.1; 307.0 353.5
San Rafael (Hamilton AFB), Calif.	Hamilton AFB Apch Ctl	122.5G; 126.2
Sault Ste. Marie (Kincheloe AFB), Mich.	Kincheloe Apch Ctl	118.3; 122.5G; 363.8
Victorville (George AFB), Calif.	Edwards Apch Ctl	124.4; 127.1; 137.65; 335.6; 122.5G
Westhampton Beach (Suffolk AFB), N.Y.	Suffolk Apch Ctl	126.2; 122.5G; 236.6
Wrightstown (McGuire AFB), N.J.	McGuire Apch Ctl	122.5G; 110.6T; 134.1; 126.2

T—Transmits G—Guards

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from Headquarters USAF (AFOAPDA) via the Commanding Officer of the field concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	×	
Balboa	FAA	×	
Cold Bay	FAA	×	
Dallas	BNF	×	
Guam	FAA	×	
Honolulu	ARINC	×	×
Miami	ARINC	×	×
New York	ARINC	×	×
New Orleans	ARINC	×	×
Okinawa	ARINC	×	×
Pago Pago	FAA	×	
Point Barrow	WEN	×	
San Francisco	ARINC	×	×
Shemya	FAA	×	
San Juan	ARINC	×	×
Seattle	ARINC	×	×
Wake Island	FAA	×	

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when ir close proximity to most military airports. Thes airfields have an unusually heavy concentration o jet aircraft operating within a 25 nautical mil radius and from the surface to all altitudes. Thi precautionary note also applies to the larger civi airports. BE ALERT, STAY ALIVE!

December 196

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. border should refer to complete regulations in INTERNA TIONAL FLIGHT INFORMATION MANUAL, Volum 12, April 1964. Pilots must report for inspection at tim of each entry to avoid inconveniences, additional e penses and penalties.

December 196

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law e forcement agencies in combating the smuggling of illeg aliens and contraband into the U.S. by private aircraf If you have information of any kind that might relat to smuggling by air, please contact the nearest U.S. Im migration and Naturalization Service or U.S. Bureau c Customs office at once. The local FAA office will pass th information along for you, if you so desire. Awards fc original information are paid by Customs under certai circumstances.

December 196

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS):

The FAA is conducting a series of operational tests a Kennedy, Chicago O'Hare, San Francisco, and Van Nuy Airports to determine the feasibility of automatical broadcasting routine, noncontrol information on the voi feature of the VOR, VORTAC, VOT or a discrete VH frequency serving the airport. Routine noncontrol i formation such as ceiling, visibility, wind, altimeter, ru ways in use, and other pertinent information are aut matically broadcast and updated as necessary. Pilo participating in these evaluations should, on initial co tact with the tower or approach control, repeat th phonetic alphabet code word appended to the record broadcast. This will indicate that he has received th latest operational tests.

Tests are being conducted on the following navaids:

Kennedy (departure information) JFK VORTAC 115 mc. Arrival information: DPK VORTAC 111.2 mc COL VORTAC 108.2 mc.

Chicago O'Hare (arrival and departure information 124.2 mc; ORD VORTAC 111.6 mc.

Van Nuys (arrival and departure information) VO 109.0 mc.

December 196

SPECIAL CIVIL AIR REGULATION NO. 456

Effective immediately the provisions applicable under Special Civil Air Regulation No. 456 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, PLB

Flights from Toronto to Kennedy below FL 180 will be routed via V-36S, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-36S, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, V-10, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Bermuda will be routed via the Tuna Intersection and the Gulfwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other Bermuda airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

December 1964

Exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations

The Department of the Air Force has been issued an exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations to conduct certain Radar Bomb Scoring (RBS) training missions at or above Flight Level 300 within 75 nautical miles of the sites listed below. A navigation aid will be listed to define the center of the complex if such an aid is so located. If a NAVAID is not located at the center, the center will be defined by bearing/distance from a High Altitude Navigation Aid.

The NIKE/RBS Complexes used are:

Providence 280°/35NM
Windsor VORTAC
Presque Isle 087°/20NM
Kennedy VORTAC
Boston VORTAC
Rapid City 110°/33NM
Dupree VORTAC 010°/114NM
Syracuse VOR 018°/48NM

PILOT-TO-FORECASTER WEATHER SERVICE

Pilot-to-Forecaster Service (PTFS) in the general area of the Washington ARTCC is provided for the purpose of the direct pilot/forecaster exchange of meteorological information when **weather conditions are critical, changing rapidly or when the direct advice of a professional aviation meteorologist is considered necessary.** Routine requests for weather information or pilot reports should be directed to the nearest FAA Flight Service Station (FSS).

PTFS is available on the radio frequency of 122.6 megacycles (mc) within communications range of the following FAA FSS locations:

Washington, D.C.
Elkins, West Virginia
Richmond, Virginia
Roanoke, Virginia
Front Royal, Virginia
Rocky Mount, North Carolina

Air/ground calls should be made to "Washington Forecaster" for direct communications with a U.S. Weather Bureau Meteorologist who is currently familiar with weather in the area. This service is available from 1200Z to 0200Z (7:00 a.m. to 9:00 p.m., EST). Emergency weather service during other periods may be made available by contacting the flight service specialist (when VFR) or the Washington ARTCC (when IFR) and requesting that "Washington Forecaster" communicate on 122.6 mcs.

December 1964

MEA, MCA, MOCA, MRA, MAA

Effective Immediately: (1) MEA on V-138 from Mead INT, Neb. to Washington INT, Neb. raised to 3000'. Delete MOCA 2500'; (2) The MOCA on V-8, V-422 btn FDY and Antwerp INT, Ohio is raised to 2200'; (3) The MOCA on V-255, DLL to STE is 2400' vice 2300'; (4) MOCA on V-13E, 161W, Elkhart INT, Iowa to Union INT. Iowa is raised to 2400'; (5) 1200' MOCA on V-31, Golden Hill INT, Md. to OTT is deleted; (6) MEAs flwg Jet routes authorized: J-5, BFL to RNO, MEA 18,000'; J-7, RBL to REO, MEA 23,000'; J-7, BOI to DLN, MEA 18,000', COP 78 NM from BOI; J-15, GJT to SLC MEA 18,000'; J-15 BOI to OGD, MEA 20,000'; J-16, PDT to HIA, MEA

29,000′; J–20, RKS to DEN, MEA 23,000′; J–110 ALS to GDC MEA 19,000′; J–56, SLC to RLG, MEA 33,000′; J–60, DEN to GJT, MEA 18,000′, COP 115 NM from GJT; J–107, MLF to RKS, MEA 28,000′; J–110, FAT to BLD, MEA 24,000′, COP 100 NM from FAT. Add Note to above routes: "MEA established with gap in navigation signal coverage"; (7) flwg flt procedures authorized: V–19, Deer Creek INT, Wyo. to CPR, MEA 9000′ NW-bnd, 10,000′ SE–bnd. Deer Creek VHF/DME fix–134 M rad CPR/265 M rad DGW, 23 NM from CPR. Lockett VHF/DME Fix 134 M rad CPR/E crs I–CPR ILS, 12 NM from CPR.

Efctv 12–10–64: Flwg flt procedures authorized: V–196, UCA to Tupper Lake INT, N.Y. MEA 8000′, MOCA 4700′; Tupper Lake INT to Redford INT, N.Y. MEA 6000′, MOCA 4900′.

Efctv 1–7–65: (1) flwg flt procdrs auzd: V–314, U.S. Canadian Border to MLT, MEA 6000′, MOCA 3400′; (2) the MEA on V–453 from DLG to BET is changed to 6500′. MOCA 6400′ is deleted.

Efctv 1–28–65: The MEA on V–104 from the U.S. Canadian Border to MSS is 1500′. No MOCA authorized.

January 1965

VFR PRACTICE INSTRUMENT APPROACH PROCEDURES

VFR practice instrument approach procedures at the following locations are published for and used by USAF Air Training Command pilots:

Cotulla, Tex.	Radio Beacon	JAL–907–ADF
Draughon-Miller Arpt. Temple, Tex	VOR	JAL–809–VOR
Cotulla, Tex.	VOR	JAL–907–VOR
Howard County Arpt. Big Spring, Tex.	VOR	JAL–5019–VOR
Rock Springs, Tex.	VOR	JAL–111–VOR–3
Sequin AF Aux., Tex.	Beacon	AL–5223–ADF
Vance AFB, Woodring, Okla.	VOR	JAL–135–VOR–3

These approach charts are published by the USAF Aeronautical Chart and Information Center in a loose-leaf format. Civil aviation requests for these charts should be submitted to the Director, Coast and Geodetic Survey, 14th and Constitution Avenue, N.W., Attention: Distribution Division Washington, D.C. 20230.

December 1964

SPECIAL CIVIL AIR REGULATION NO. SR 454A

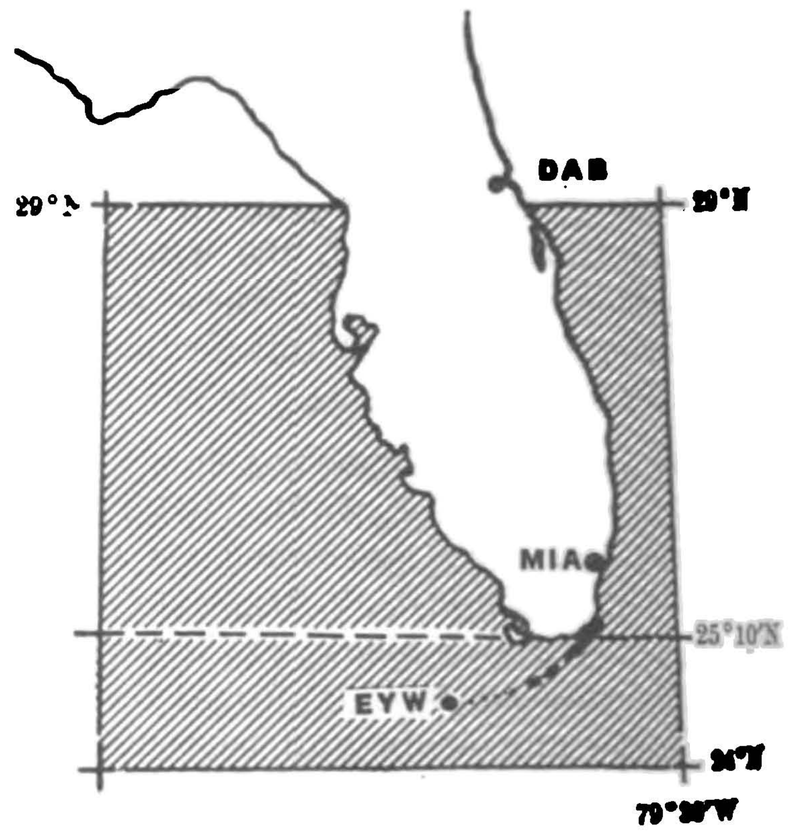
The following special rules of SR 454A are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SR 454A is applicable to the land mass between 25°10′ and 29°00′N whenever activated by NOTAM.



LOCATION IDENTIFIERS

The following changes affect the use of the Local Identifiers ATP–7350.1G:

AWM	West Memphis, Ar, Municipal Airport (Assignment)
BIF	Biggs AFB, El Paso, Texas (Correction)
CCV	Cordova, Alaska, City Airport (Assignment
MIB	Deering (Minot AFB), N. Dak. (Change)
MYF	San Diego, Calif. Montgomery Field TVOR (Assignment)
7BQ	Bradshaw, Va. Intersection (V290/V222) (Correction)
7IN	Marion, N.Y. Intersection (Assignment)
7LM	Lima, N.Y. Intersection (Assignment)
7NC	Spencerport, N.Y. Intersection (Assignmen
7RH	Churchville, N.Y. Intersection (Assignment
2BM	Sunbeam, Fla. Intersection (Change)
2LL	Lee, Fla. Intersection (Change)
2MK	St. Marks. Fla. Intersection (Change)
2ST	St. Marys, Ga. Intersection (Change)
2XA	Azalia Intersection, Atlantic Ocean (Chang
2XG	Gateway Intersection, Atlantic Ocean (Change)
2XM	Smelt Intersection, Atlantic Ocean (Chang
2XP	Carp Intersection, Atlantic Ocean (Change
2YE	Bryceville, Fla. Intersection (Change)
5YO	Yakobi, Alaska Intersection (Assignment)

January 1

New Flight Assistance Service Facility Tests

Two new methods of providing flight assistance services t airports will be field tested by FAA for a six-month eriod beginning about January 1, 1965.

A part-time, Flight Service Facility (FSF) will be valuated at five airport locations—one in each FAA do- estic region. During open hours, these facilities will rovide the terminal flight services now available at regu- r Flight Service Stations (FSSs).

An unmanned Airport Information Desk (AID) will be ted at 16 other locations. It will provide "do-it-yourself" ght planning services and will have current weather in- rmation available and direct communications to the arest FSS.

The five FSF test sites with control FSS shown in arenthesis are:

Watertown, New York (Massena, New York)
Myrtle Beach, South Carolina (at Cresent Beach) Florence, South Carolina)
Manhattan, Kansas (Salina, Kansas)
Junction, Texas (San Antonio, Texas)
Delta, Utah (Salt Lake City, Utah)

The AID test sites with control FSS shown in parenthe- sis are:

Jamestown, New York (Bradford, Pennsylvania)
Laconia, New Hampshire (Montpelier, Vermont)
Pittsfield, Massachusetts (Albany, New York)
Frankfort, Kentucky (Lexington CS/T)
Aiken, South Carolina (Florence, South Carolina)
Auburn, Alabama (Montgomery, Alabama)
Lakeland, Florida (Tampa, Florida)
Liberal, Kansas (Garden City, Kansas)
Marion, Indiana (Indianapolis, Indiana)
Mt. Vernon, Illinois (Cape Girardeau, Missouri)
Kerrville, Texas (San Antonio, Texas)
Ruidoso, New Mexico (Roswell, New Mexico)
Altus, Oklahoma (Wichita Falls, Texas)
Twin Falls, Idaho (Burley, Idaho)
Tacoma Industrial Airport, Washington (Seattle, Washington)
Aspen, Colorado (Denver, Colorado)

The FSF test facilities will be manned by flight service specialists and will normally operate 12 hours a day, seven days a week. The hours of operation will be tailored to the requirements of each location. Pilots may contact an FSF within 15 nautical miles of the FSF airport by calling on 121.9 mcs. and listening for reply on the same frequency. In radio calls, use the name of the FSF airport followed by the word "radio"; e.g., "Crescent Beach radio this is N1234V, over."

The FSFs will also guard the 121.5 mc. emergency frequency during open hours for the test period.

Pilots should check NOTAM information for commissioning dates of each of the facilities listed above.

Pilots are invited to use and evaluate these services.

Comments, criticism and suggestions should be forwarded to:

Director, Air Traffic Service
Federal Aviation Agency
800 Independence Avenue, S. W.
Washington, D. C. 20553

January 1965

Washington DISTRICT OF COLUMBIA

TEST EVALUATION OF VFR ARRIVAL AND DEPARTURE RADAR TRAFFIC INFORMATION SERVICE

In Washington, D.C. Terminal Area

Beginning on June 23, 1961, at 0401 GMT, and until further advised, the FAA will conduct an evaluation of VFR arrival and departure radar traffic information service in the Washington, D.C., Terminal Area. Pilot participation is urged, but is not mandatory.

VFR Radar Traffic Information Area

GENERAL PROCEDURES: The Washington VFR Radar Traffic Information Area is that airspace which extends upwards to an altitude of four thousand feet, MSL inclusive, and is encompassed by a line connecting the following points: Rockville, Laurel, Shadyside RBN, Hughesville, Indian Head, Centreville, and Herndon. (See chart on facing page.)

Pilots of aircraft without radio, as well as those unable to contact VFR Arrival or Departure Information Service on assigned frequencies, are urged to conform to routing via designated VFR arrival and departure routes.

Pilots operating VFR flights destined for Washington National Airport should follow the designated arrival and departure routes listed herein in order to maintain a safe, orderly flow of air traffic in the Washington area.

All aircraft arriving or departing Washington National Airport should proceed with caution when in the vicinity of Andrews AFB.

If destination is other than Washington National Airport, so advise.

THE RADAR SERVICE DESCRIBED HEREIN IS NOT INTENDED TO RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. IT IS PROVIDED TO AID HIM IN HIS VISUAL SURVEILLANCE BY CALLING TO HIS ATTENTION PERTINENT TRAFFIC. PILOTS ARE REMINDED THAT THE SURVEILLANCE RADAR UTILIZED BY THE CONTROLLER DOES NOT PROVIDE ALTITUDE INFORMATION.

The following procedures should be adhered to by pilots of VFR flights desiring this service and having proper radio equipment when arriving at and departing from Washington National Airport.

ARRIVAL PROCEDURES: Arriving VFR flights desiring traffic information should contact Washington Traffic Information Service on 119.3 mcs/338.2 mcs UHF when approaching from Laurel, Shadyside RBN, and Hughesville; or on 120.1 mcs/306.3 mcs UHF when approaching from Indian Head, Centreville, Herndon, and Rockville. When practicable, pilots should follow the appropriate VFR arrival route as indicated (See Chart) and maintain listening watch on traffic information frequency until further advised. Landing information will be furnished to aircraft destined for Washington, and rad traffic information will be provided until the pilot is visesd to contact the tower.

DEPARTURE PROCEDURES: VFR flights departing fr Washington Airport desiring traffic information sho request the service on initial contact to Ground Cont The pilot should also advise his proposed direction flight; e.g., "VFR Information Service, Laurel." F lowing take-off, the tower will advise the pilot when contact Washington Information Service and the f quency to be used. Flights proceeding to Laurel, Sha side RBN, and Hughesville will use 119.3 mcs/338.2 m UHF. Flights proceeding to Indian Head, Centrevi Herndon, and Rockville will use 120.1 mcs/306.3 mcs U Pilots should depart the Washington Terminal area via designated VFR departure route most nearly aligned w their destination. They should also maintain listen watch on the appropriate information service freque until cleared to leave the frequency or beyond the per eter fix.

Washington National Airport

Arrival Routes

Northeast—Report Laurel. Proceed well right of Wa ington-Baltimore Parkway to Beltsville, then north Washington to Chain Bridge.

East—Report Shadyside RBN. Proceed via Bran wine to Fort Washington. Caution—Military conv tional and jet traffic vicinity of Andrews AFB Cont Zone.

Southeast—Report Hughesville. Proceed via Wald to Fort Washington. Caution—Andrews jet penetrat inbound on Andrews VOR 187 degree radial descend to cross Andrews LFR at 1500 feet MSL.

Southwest—Report Indian Head. Proceed on right s of Potomac River until past Mount Vernon.

West—Report Centreville. Proceed well right of U Route 29 highway to Falls Church.

Northwest—Report Herndon. Proceed well right of tomac River to Falls Church.

North—Report Rockville. Proceed well left of Potor River to Chain Bridge.

Departure Routes

Northeast—Proceed via west bank of Anacostia Ri to Riverdale and well right of Washington-Baltim Parkway until past Beltsville Airport.

East—Proceed via Fort Washington and Brandyw to Shadyside RBN.

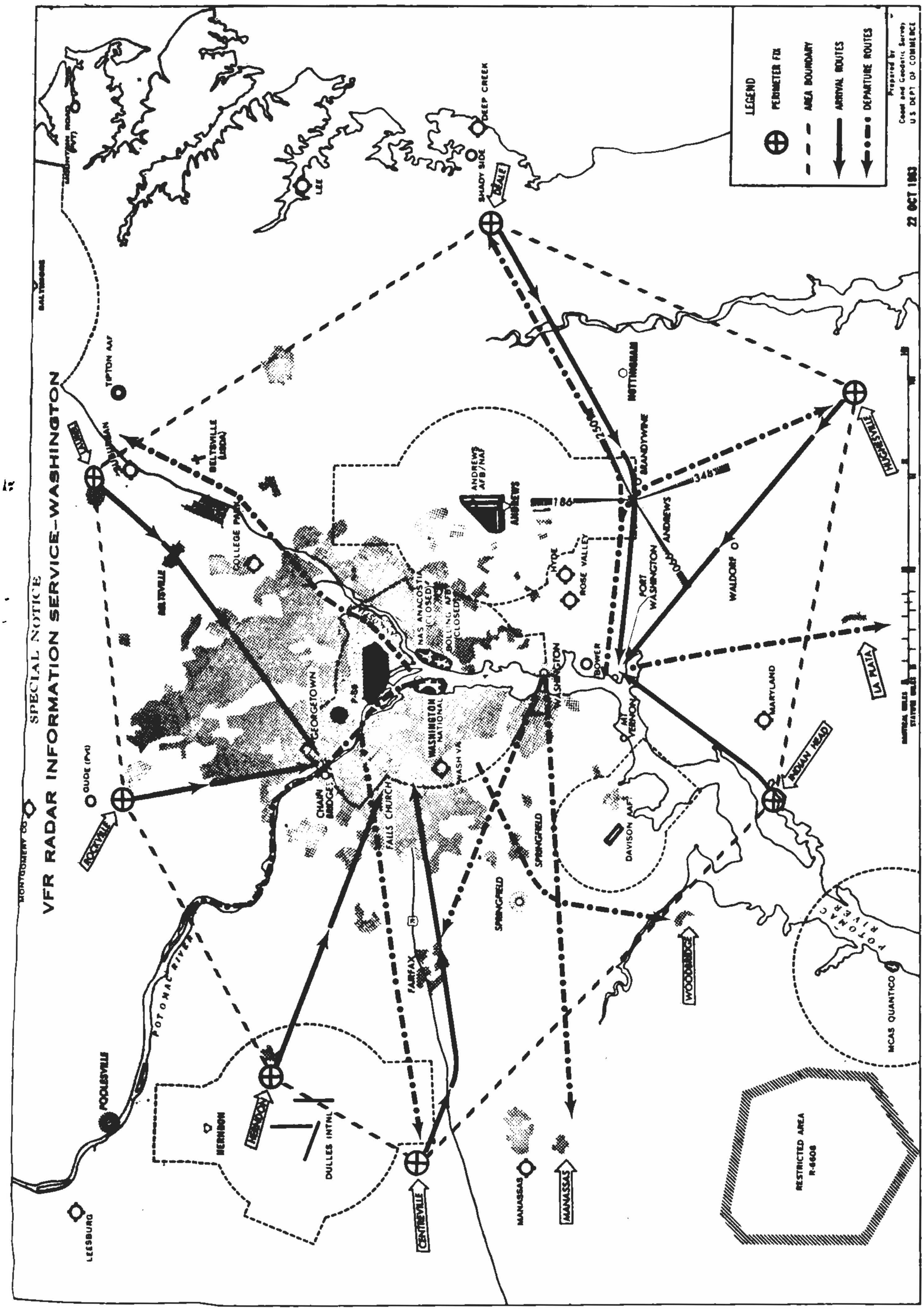
Southeast—Proceed via Fort Washington and LaPlata

Southwest—Proceed well right of Potomac River u past Woodbridge.

West—North departures proceed well right of U Route 29 highway until past Centreville. South dep tures proceed via Washington LFR to Manassas.

Northwest—North departures proceed via Potomac Ri until leaving the area. South departures proceed Washington LFR to Fairfax.

DISTRICT OF COLUMBIA



Atlanta GEORGIA

TERMINAL RADAR SERVICE AREA

(An Evaluation of Terminal Area Positive Separation)

The Air Traffic Service, FAA, has developed a program to evaluate a concept of providing a positive separation service to aircraft operating within a terminal area. The airspace area where this evaluation will be conducted will be known as a Terminal Radar Service Area (TRSA). During the evaluation period, a true positive separation environment will not be guaranteed.

This program is in consonance with the report of the Task Force on air traffic control (Project Beacon) and the subsequent Air Traffic Service analysis of the report.

A program for positive separation of aircraft operating in terminal airspace, regardless of weather conditions, must be able to satisfy the many varied requirements of both the VFR and IFR users without imposing excessive restrictions to their operations, yet it must be within the capabilities of the air traffic control system.

In consideration of these two major stipulations, the program will initially be implemented on a voluntary basis, whereby pilot participation will be encouraged rather than required. In this respect, it is obvious that considerable cooperation and effort must be expended jointly by the Federal Aviation Agency (FAA) and the airspace users, if a realistic evaluation is to be made.

Generally, the objective of this evaluation is to determine the following:

1. Airborne equipment and pilotage requirements.
2. Operating personnel, equipment, procedural and airspace requirements.
3. Impact on the over-all terminal operation.
4. Capability of the air traffic control system to provide positive separation to all aircraft operating within a terminal area.
5. Need for regulatory action.

Following a thorough and complete analysis of this evaluation, FAA in cooperation with the users, will determine the necessary requirements for implementation of a positive separation system in high activity terminal areas, wherein all aircraft would be provided separation by the ATC system, irrespective of weather conditions.

The size and shape of the TRSA will vary depending upon operational requirements. This area may be shown as a circular radius or other configuration and should be no larger than absolutely necessary to adequately perform the control functions.

Implementation

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia, as the first of selected locations to thoroughly evaluate the program.

In addition to the following details and procedures, information has been provided on appropriate charts, other aeronautical flight information publications a through representative user organizations.

The Atlanta Terminal Radar Service Area is that airspace extending upward from the surface to and including 6,000 feet MSL within the Atlanta Airport Control Zone; and, in addition, that airspace extending from 2,000 feet MSL to and including 6,000 feet MSL within a 15 statute mile radius of the Atlanta Airport, excluding Dobbins AFB Control Zone and the airspace within a 1½ mile radius of the Edwards Skyport and the Gunn Airport; EXCEPT that the base of the airspace area within the Fulton County Airport control zone is 2,500 feet MSL.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atla TRSA shall be operated in accordance with curr IFR procedures.
2. **VFR Flights**

   a. Airports within the Atlanta TRSA:

      (1) Arriving aircraft will be expected to cont Atlanta Terminal Control on specified f quencies and in relation to geographical fi listed in d. below.

      (2) Departing aircraft will be advised by the tov when to contact departure or terminal c trol and the frequency to be used.

   b. Airports underlying the Atlanta TRSA:

      (1) Unless flight will be conducted below the fl of the TRSA, arriving aircraft will be pected to contact Atlanta Terminal Cont on specified frequencies and in relation geographical fixes listed in d. below.

      (2) Departing aircraft will be expected to cont Atlanta Terminal Control on the freque specified in d. below as soon as possible af becoming airborne if it is desired that fli be conducted within the TRSA.

   c. Transiting Aircraft—Aircraft desiring to trai the TRSA will be expected to contact Atla Terminal Control on specified frequencies and relation to geographical fixes listed in d. below

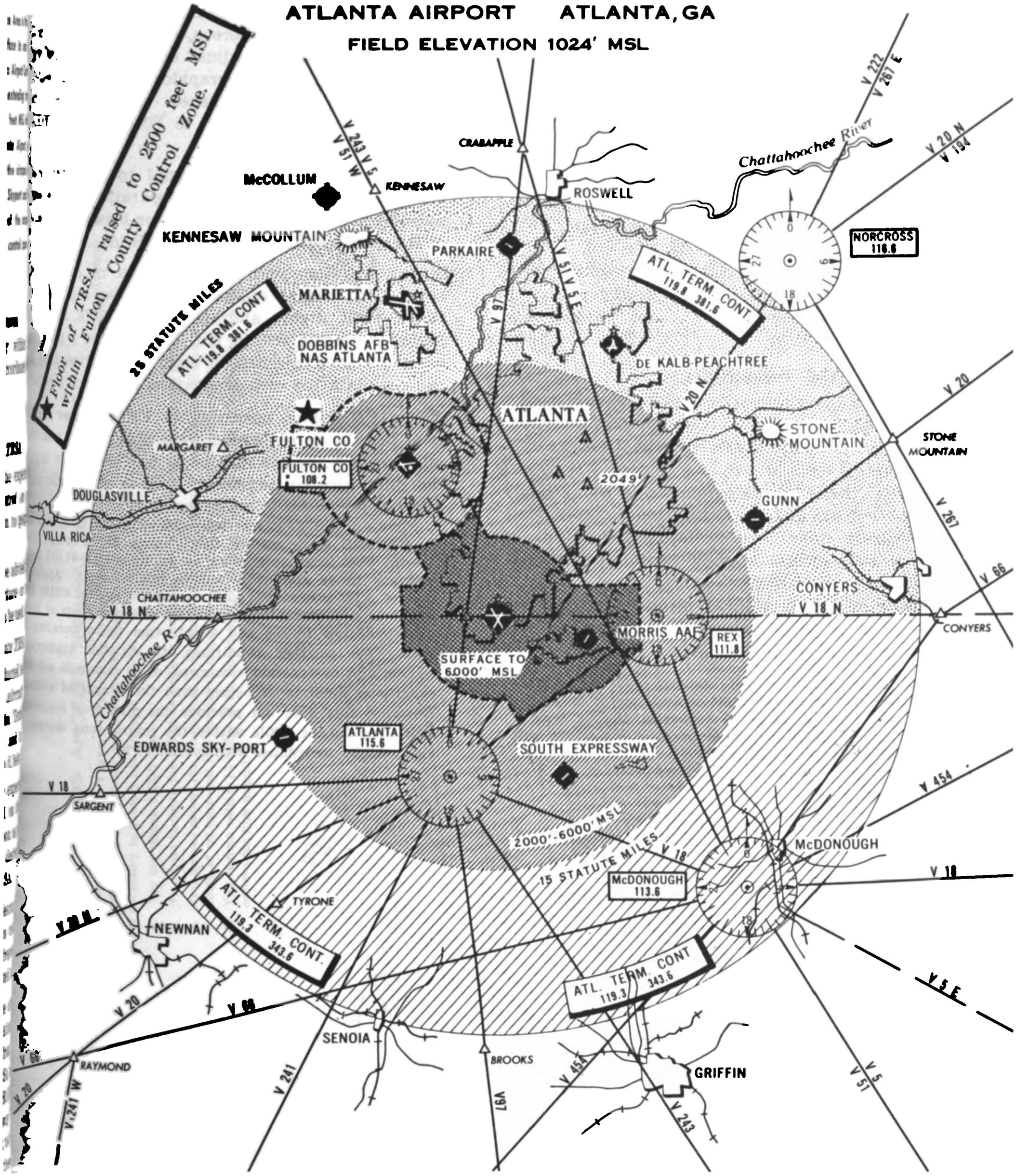
   d. Frequencies and Fixes—En route aircraft sho establish communications with Atlanta Termi Control approximately 25 miles from Atlanta A port. Aircraft entering the TRSA north of A way V-18N should use 119.8 or 381.6 MC; Aircr entering the TRSA south of Airway V-18N sho use 119.3 or 343.6 MC. Aircraft not equipped two-way communications on these frequenc should transmit on 122.7 MC and listen on appropriate frequency specified above.

      In addition to published radio fixes and ot prominent geographical fixes, the following f

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024' MSL



LEGEND

TERMINAL RADAR SERVICE AREA — 2000'-6000' — SURFACE TO 6000'

CONTACT OR CALL-UP AREAS — North of V 18 N; South of V 18 N

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

GEORGIA

graphical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	"	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conveyors	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

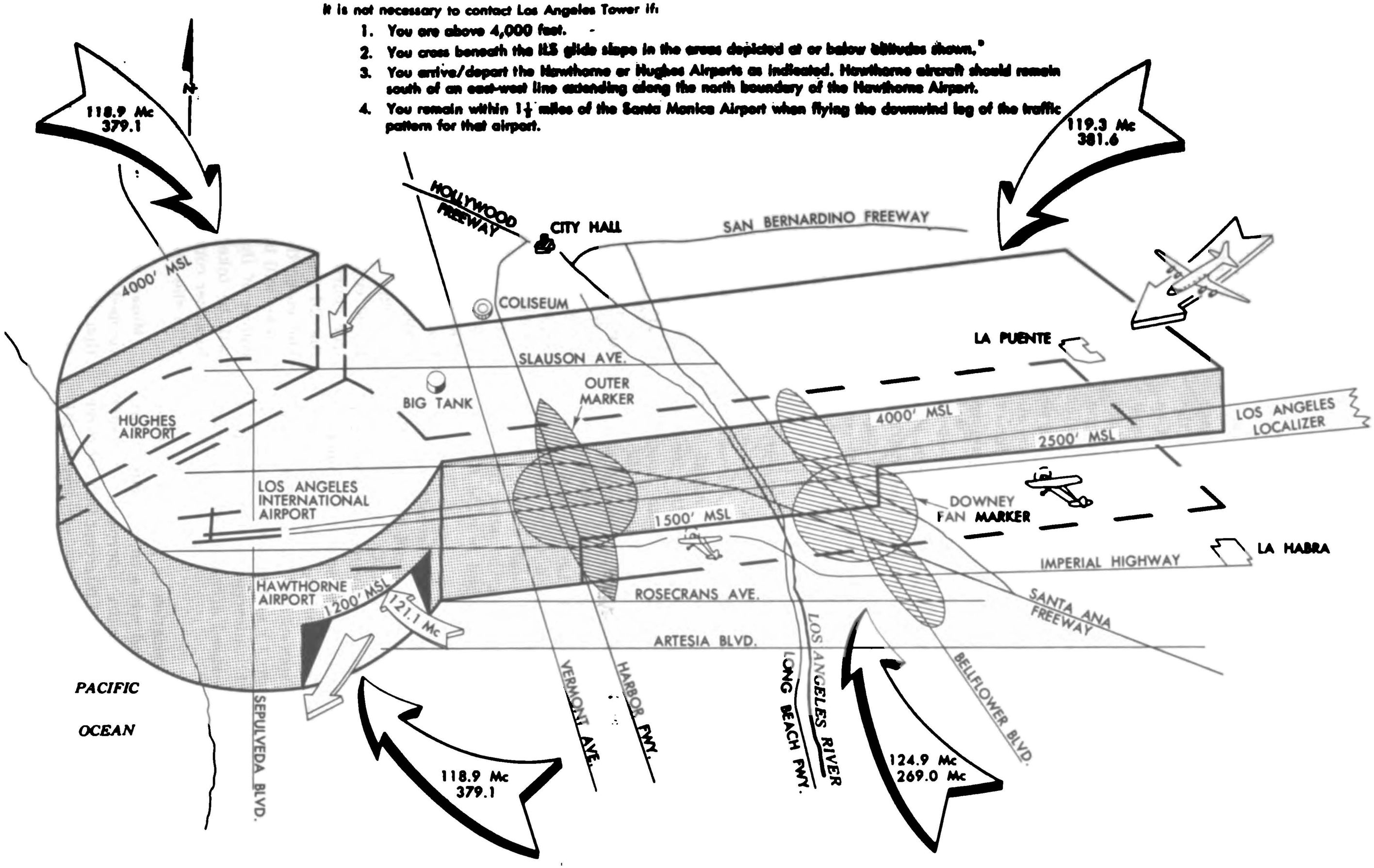
NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. **You are above 4,000 feet.**
2. **You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.***
3. **You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.**
4. **You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.**



*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Chicago ILLINOIS

PARALLEL ILS APPROACHES—CHICAGO O'HARE INTERNATIONAL AIRPORT

Effective April 11, 1964 a revised Parallel ILS 14R&L approach procedure Amendment 1 was effective for Chicago O'Hare International Airport. ILS, radar, communications, ATC procedures and flight procedures are employed as integral parts of a total system. Under the system, Chicago Approach Control may clear aircraft to conduct Parallel ILS Approaches to Runways 14L and 14R when wind conditions permit straight-in landings and when all components of the system—except airborne or ground glide slope equipment—are operating normally. Aircraft are radar vectored to the final approach course (localizer) of either runway and the pilot executes an ILS approach. The separation between localizer courses (6,510 feet) imposes certain requirements and techniques peculiar to parallel approaches.

Requirements: To conduct a Parallel ILS Approach, aircraft must be equipped with a functioning 75 mc marker (or ADF) and localizer receivers, and have the capability to simultaneously monitor both the assigned control frequency and the appropriate localizer voice frequency when advised by ATC.

ATC Concept and Procedures: Arriving IFR aircraft en route to O'Hare Airport will be cleared by Chicago Center to one of four outer fixes (Northbrook, Niles, Lakewood, or Warren) established in the O'Hare Terminal Area and changed over to Chicago Approach Control for further clearance. On initial contact, Chicago Approach Control will advise the pilot that PARALLEL ILS APPROACHES ARE IN PROGRESS. Upon receipt of this information, **pilots who do not have required equipment** or do not wish to conduct a Parallel ILS approach, or require a specific runway, or require a radar fix in lieu of Meadow Intersection for 14L, must advise Chicago Approach Control prior to departing the outer fix. This will enable the controller to plan and provide for individual handling.

Chicago Approach Control will clear aircraft to depart the outer fix on a specified heading and at a specified altitude FOR RADAR VECTOR TO RUNWAY 14 (RIGHT/LEFT) ILS FINAL APPROACH COURSE and will specify the appropriate localizer frequency (109.7 or 110.1). After departing the outer fix, aircraft will be descended to the appropriate ILS Intercept Altitude (2,200 or 3,200 feet m.s.l.) and provided a period of level flight prior to the ILS intercept in which the pilot may dissipate any excess speed accumulated during the descent.

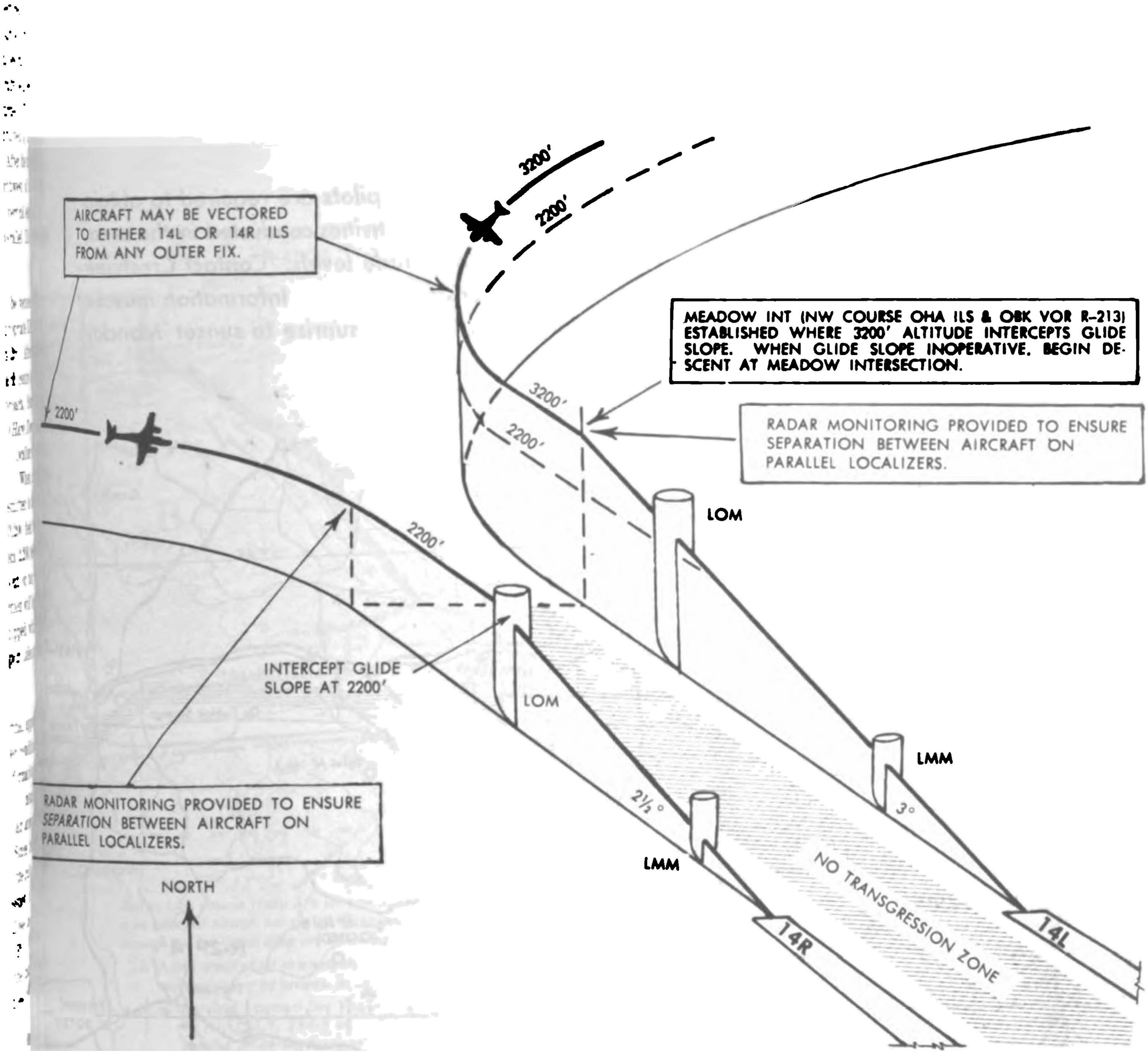
ATC Separation: Radar separation is provided between aircraft being vectored to, and while on, the same localizer course throughout the entire approach. Aircraft being vectored to Runway 14R will intercept that localizer course at 2,200 feet m.s.l. Aircraft being vectored to 14L will intercept that localizer course at 3,200 feet m.s.l., or higher. Since aircraft may be vectored to either ILS localizer course from any of the four outer fixes, a minimum of 1,000 feet vertical or 3 miles radar separation will be provided between the aircraft being vectored to opposite ILS courses during the turn-on. The appropriate ILS Intercept Altitude is maintained by the aircraft until intercepting the glide slope. After the turn-on and until aircraft are 2.3 miles northwest of the outer markers, a minimum of 1,000 feet vertical separation is provided between aircraft on parallel ILS localizer courses.

Localizer Interception: Aircraft will be vectored so as to permit the pilot to intercept the appropriate ILS localizer course at an angle not greater than 20°. After assigning this final intercept heading, approach control will clear the aircraft for a parallel ILS approach. Subsequently the pilot will be changed over to O'Hare Tower and instructed to monitor the appropriate localizer voice frequency (either 109.7 or 110.1 mc). When glide slope receiver or ground glide slope transmitter is inoperative the pilot will begin descent from 3,200 feet for 14L at Meadow Intersection or descend from 2,200 feet for 14R at the LOM. When glide slope is out or not received radar fix in lieu of Meadow Intersection will be provided upon pilots request or aircraft equipped with ILS and VOR will start descent on 14L upon identification of Meadow Intersection.

Radar Monitoring: All turn-ons and final approaches are radar monitored regardless of weather conditions. Monitor controllers will issue advisory information and control instructions as may be necessary to insure that aircraft on final approach remain within an area 1,500 feet either side of the localizer course. Since the primary responsibility for navigation rests with the pilot, advisory information and control instructions issued on the localizer voice frequency are limited to those necessary to insure separation between aircraft. Pilots need not acknowledge transmissions made by the monitor controller on localizer voice frequency unless specifically requested to do so.

A "no transgression zone" 3,510 feet wide is established equidistant between the centerlines of each localizer course and displayed on the monitor radar scope. Should an aircraft on final approach deviate from course and enter the "no transgression zone," the monitor controller will issue instructions as are necessary to alter the course of that aircraft. Concurrently, immediate action will be taken by the controller monitoring the adjacent localizer course to cause any aircraft in potential conflict with the intruding aircraft to alter its flight path.

Missed Approach: The missed approach procedure developed for either runway is designed to provide separation from the adjacent runway. The pilot may be instructed to execute the missed approach procedure at any time during the approach.


AIRCRAFT MAY BE VECTORED TO EITHER 14L OR 14R ILS FROM ANY OUTER FIX.
3200'
2200'
MEADOW INT (NW COURSE OHA ILS & OBK VOR R-213) ESTABLISHED WHERE 3200' ALTITUDE INTERCEPTS GLIDE SLOPE. WHEN GLIDE SLOPE INOPERATIVE, BEGIN DESCENT AT MEADOW INTERSECTION.
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
LOM
INTERCEPT GLIDE SLOPE AT 2200'
LMM
2½°
3°
NO TRANSGRESSION ZONE
14L
14R
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
NORTH

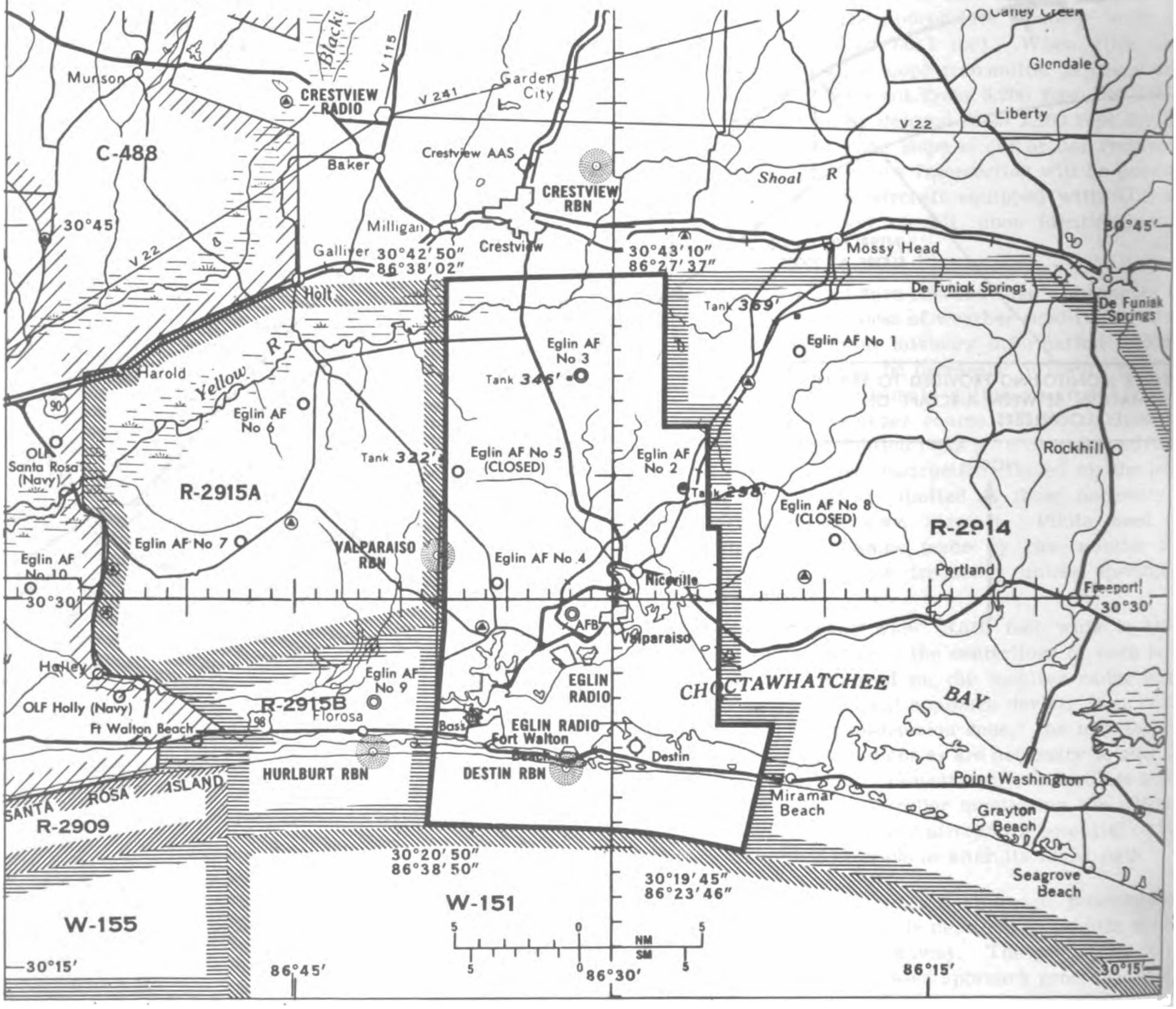
86°45′ 86°15′

VALPARAISO, FLORIDA, TERMINAL AREA

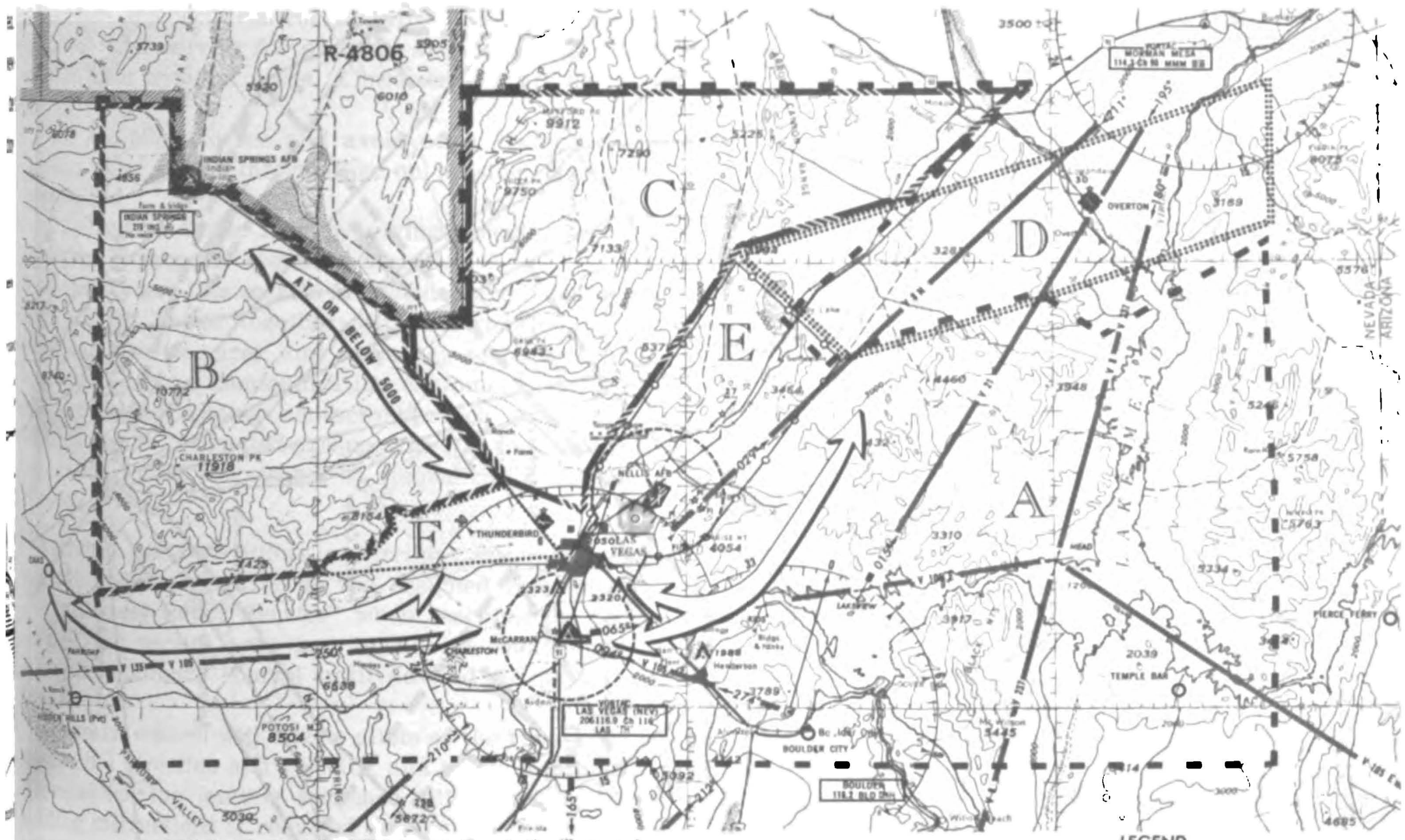
SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

EFFECTIVE DECEMBER 10, 1964

Prior to conducting flight operations in the area shown, pilots are required to obtain information about operating altitudes of high speed special activities conducted in the area. Normally, special activities will use not more than two altitude levels. Contact Crestview Radio, Eglin AFB RAPCON, Tallahassee Radio, or Pensacola Radio. Information may be obtained by radio or telephone. This special rule is in effect sunrise to sunset Monday through Saturday.



LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA



Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. a. *Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*

   b. *Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Thunderbird Airport.*

Refer to ANRA Section Of Airguide
For Latest Frequency Information

LEGEND

Nellis AFB based jet aircraft
VFR departure and arrival areas.
Altitudes are Mean Sea Level

A — — — 23,000
B ▰▰▰▰ 5,500-23,000
C ▬▬▬ Surface to 23,000
D ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ 8,000 & 9,000 incl.
E o——o——o Surface to 9,000
F ..... 10,000 to 23,000

Recommended itinerant VFR routes ⇄

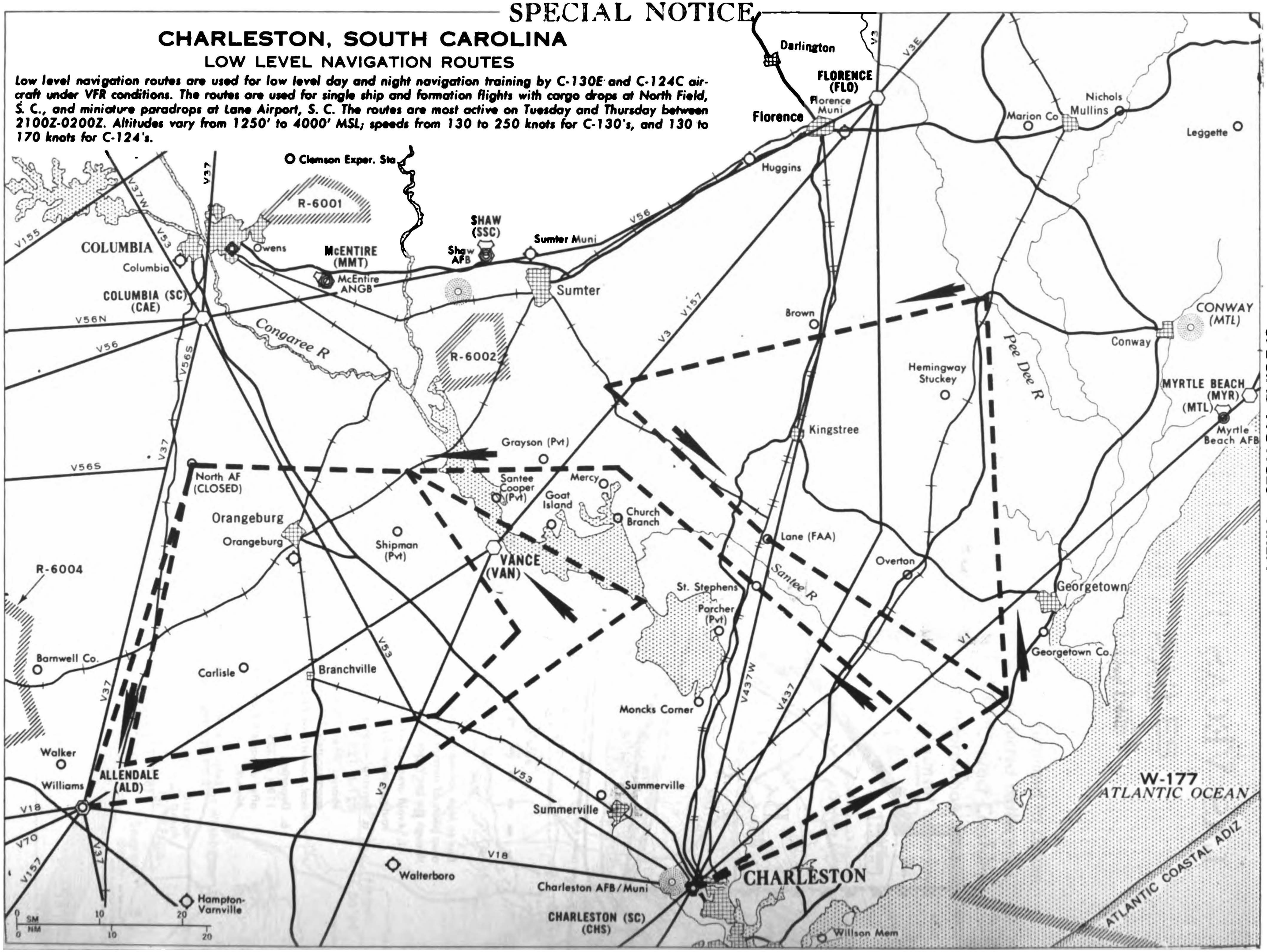
Base And Airspace Compiled From 51st Edition Of Mt Whitney And 56th Edition Of Los Angeles Sectional Aeronautical Charts

Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE

CHARLESTON, SOUTH CAROLINA

LOW LEVEL NAVIGATION ROUTES

Low level navigation routes are used for low level day and night navigation training by C-130E and C-124C aircraft under VFR conditions. The routes are used for single ship and formation flights with cargo drops at North Field, S. C., and miniature paradrops at Lane Airport, S. C. The routes are most active on Tuesday and Thursday between 2100Z-0200Z. Altitudes vary from 1250' to 4000' MSL; speeds from 130 to 250 knots for C-130's, and 130 to 170 knots for C-124's.



EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing expanded radar service for arriving and departing flights within their terminal areas. These services are designed to:

1. Aid pilots to see and avoid other traffic by providing radar traffic information on possible conflicting traffic, and

2. Improve traffic flow by giving specific routes or headings to properly sequence arrivals.

Locations where this service is provided are listed at the end of this Notice together with information on the designated service area and frequency to be used. Aircraft with limited communication equipment who desire the service but cannot contact approach or departure control on the designated frequencies will be given service to the extent practicable on frequencies available to the pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should contact approach control on the assigned frequency/ies and "Request Radar Service" when reaching the perimeter of the service area and remain in communication with the approach control until advised to contact the tower.

Approach control will advise pilots of the runway to be used, wind direction and velocity, and traffic information. To establish the landing sequence, pilots will be given holding instructions if required and/or specific routes or headings to fly. When a pilot reports he has the aircraft he is to follow in sight, he will be directed to follow it. When a pilot of an IFR flight, operating in basic VFR weather conditions, is instructed to follow a preceding aircraft he will be cleared for a "visual approach." This clearance may be issued whether or not the IFR flight is operating within the control zone. With a "visual approach" clearance, the pilot operating on an IFR flight plan in VFR conditions may deviate from the prescribed instrument approach procedure and proceed to the airport with visual reference to the surface. Radar service will be terminated when aircraft are told to contact the tower and the tower will assign a landing sequence number.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring traffic information should "Request Radar Service" on initial contact with ground control and advise proposed direction of flight. Following takeoff, the tower will advise when to contact departure control and the frequency to be used.

When radar contact is established, departure control will provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 120.8 mc. Aircraft not equipped for two-way communication on 120.8 mc should transmit 122.7 mc and listen on 120.8 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Houston International Airport, Tex.

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 118.3 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 123.7 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Castle AFB Terminal Area Merced, Calif.

EFFECTIVE DATE: 1 JUNE 1963

AREA WITHIN WHICH SERVICE IS PROVIDED: 20 mi radius of Castle AFB, 4000 feet and below. Aircraft entering this area or, departing from airports within this area should contact Castle approach on 118.9 mcs, 137.65 mcs or 294.5 mcs. Aircraft not equipped for two-way communications an 118.9 mcs should transmit on 122.5 mcs and receive on 118.9 mcs or 114.2 mcs.

Metropolitan-Oakland International Airport, Calif.

EFFECTIVE DATE: 15 OCTOBER 1964

Area Within Which Service is Provided: 15 smi radius of the Metropolitan Oakland International Airport from the surface to and including 5,000′ MSL. Aircraft flying toward the airport on headings of 090° thru 270° should use the frequencies 118.1 or 354.1 mc. Aircraft flying toward the airport on headings of 271° thru 089° should use the frequencies 124.7 or 323.2 mc. Aircraft not equipped for two-way communications on these frequencies should transmit on 122.6 mc and listen on the appropriate frequency.

Los Angeles International Airport, California

EFFECTIVE DATE: 22 SEPTEMBER 1964

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 119.3 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control on 125.2 or 385.4 mc when outbound 225–045 degrees, 124.3 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

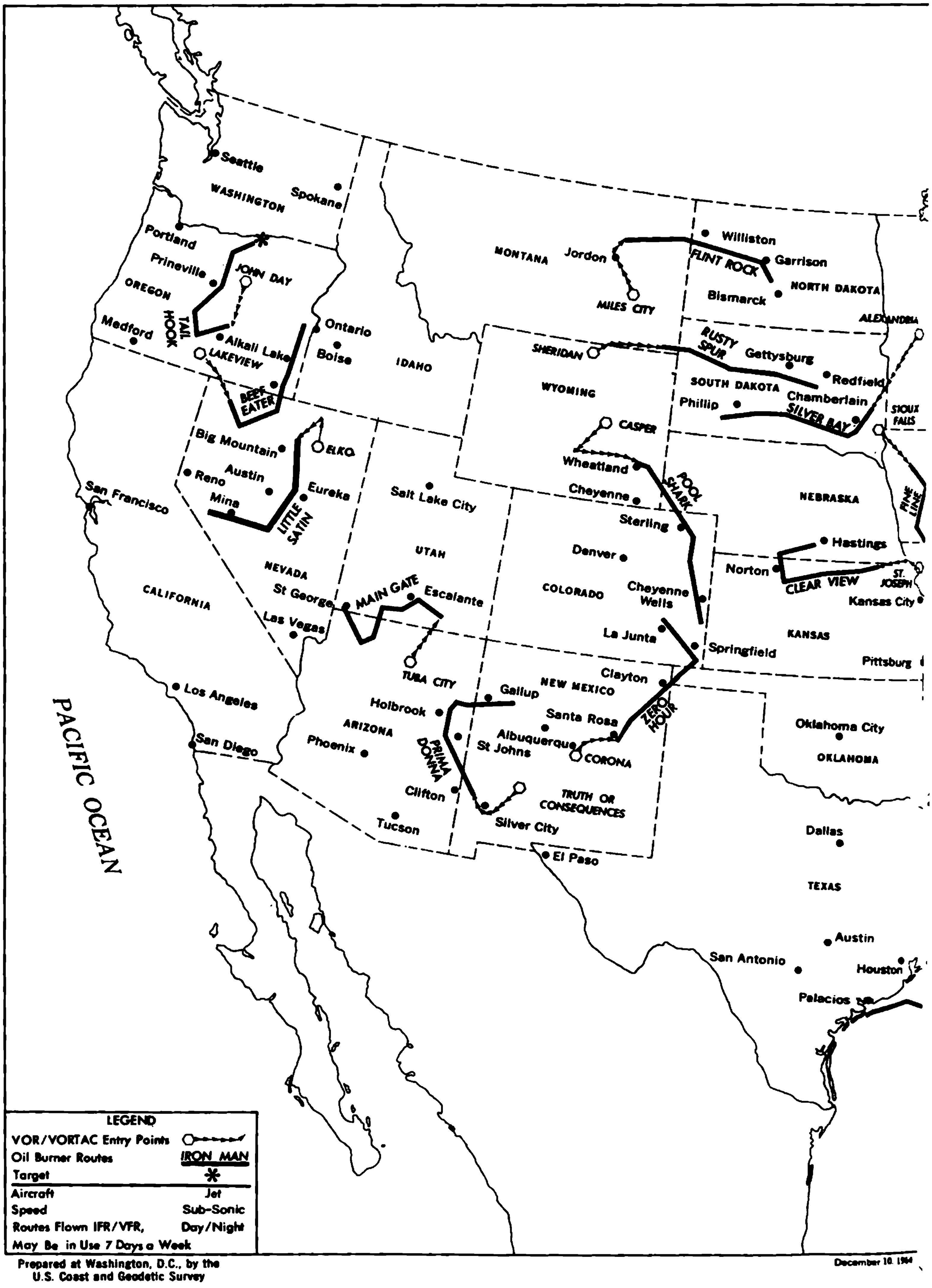
EFFECTIVE DATE: 14 SEPTEMBER 1964

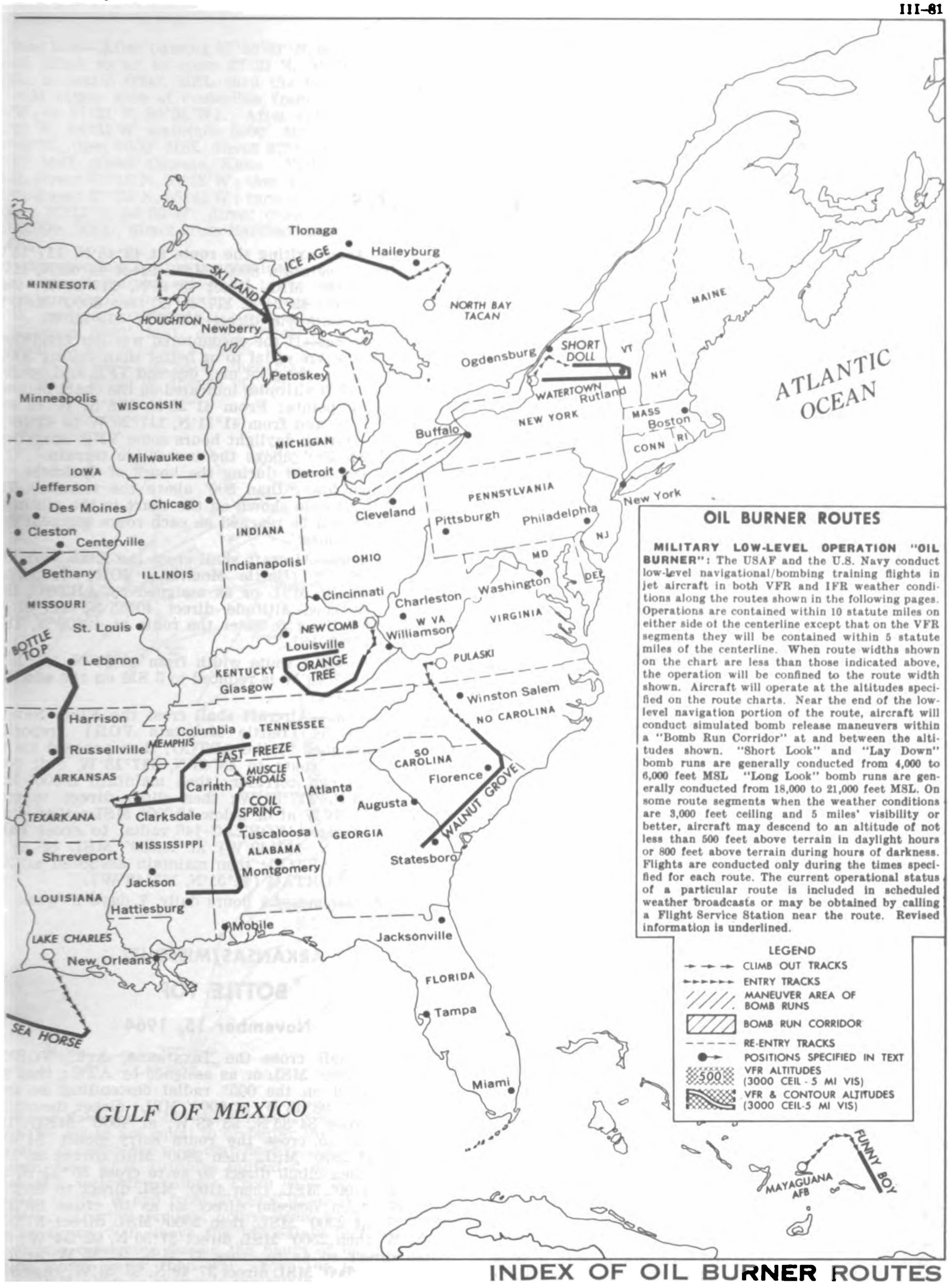
Area within which service is provided: 20 nmi, 4000′ and below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground control, 121.9 mc then Indianapolis Departure Radar Service, 121.3 mc. Enroute aircraft contact Indianapolis Terminal Radar Service, 118.5 mc.

MILITARY AERIAL REFUELING TRACKS

Military aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Name	Location	Ingress			Egress		
		Navaid	Bearing Degrees	Distance Miles	Navaid	Bearing Degrees	Distance Miles
lack Warrior	Washington, Idaho	GEG VORTAC	224	54	MLP VOR	164	103
order Town	North Carolina, South Carolina, Virginia, Georgia.	SPA VORTAC LYH VORTAC	233 340	47 17	LYH VORTAC SPA VORTAC	340 233	17 47
oss Over Alpha	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 263	99 133	CZI VOR BOI VORTAC	263 354	133 99
oss Over Bravo	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 255	79 137	CZI VOR BOI VORTAC	255 354	137 79
ass Jar	Minnesota, Wisconsin	RWY VOR RWF VOR	260 140	26 30	RWF VOR ALO VORTAC	140 034	30 38
olden Heart	Kansas-Nebraska	ICT VOR LBF VORTAC	262 005	65 42	LBF VORTAC ICT VOR	005 262	42 65
nstock Alpha	New York, Pennsylvania	BUF VORTAC ALB VORTAC	230 259	41 36	ALB VORTAC BUF VORTAC	259 230	36 41
nstock Bravo	New York, Pennsylvania	ERI VORTAC ALB VORTAC	081 244	16 55	ALB VORTAC ERI VORTAC	244 081	55 16
ak Proof	Oregon	DLS VORTAC REO VOR	217 173	33 63	REO VOR DLS VORTAC	173 217	63 33
tle Bug Alfa	South Dakota-North Dakota	ABR VOR DIK VORTAC	158 333	53 78	DIK VORTAC ABR VOR	333 158	78 53
tle Bug Bravo	South Dakota-North Dakota	ABR VOR DIK VORTAC	174 320	66 69	DIK VORTAC ABR VOR	320 174	69 66
ple Tree Alpha	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	049 236	104 34	PQI VOR ALB VORTAC	236 049	34 104
ple Tree Bravo	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	060 211	102 45	PQI VOR ALB VORTAC	211 060	45 102
d Road Alfa	Wisconsin, Minnesota, South Dakota	GRB VORTAC ABR VOR	320 039	115 77	ABR VOR GRB VORTAC	039 320	77 115
d Road Bravo	Wisconsin, Minnesota, South Dakota	GRB VORTAC ABR VOR	311 052	102 65	ABR VOR GRB VORTAC	052 311	65 102
rth Wind Lima Alpha	Montana, Washington	GEG VORTAC LWT VOR	001 350	72 95	LWT VOR GEG VORTAC	350 001	95 72
rth Wind Lima Bravo	Montana, Washington	GEG VORTAC LWT VOR	008 354	52 74	LWT VOR GEG VORTAC	354 008	74 52
vate Eye	Louisiana, Mississippi, Tennessee	MSY VORTAC MEM VORTAC	222 212	79 63	MEM VORTAC MYS VORTAC	212 222	63 79


Seattle
WASHINGTON
Spokane
Portland
Prineville
JOHN DAY
OREGON
TAIL HOOK
Medford
Alkali Lake
LAKEVIEW
BEER EATER
Ontario
Boise
IDAHO
MONTANA
Jordon
MILES CITY
Williston
FLINT ROCK
Garrison
NORTH DAKOTA
Bismarck
ALEXANDRIA
SHERIDAN
RUSTY SPUR
Gettysburg
Redfield
SOUTH DAKOTA
Phillip
Chamberlain
SILVER BAY
SIOUX FALLS
WYOMING
CASPER
Wheatland
POOL SHARK
Cheyenne
Sterling
NEBRASKA
PRIME LINE
Hastings
Norton
CLEAR VIEW
ST. JOSEPH
Kansas City
Big Mountain
ELKO
Austin
Reno
Eureka
Mina
LITTLE SATIN
San Francisco
Salt Lake City
UTAH
NEVADA
Denver
COLORADO
Cheyenne Wells
CALIFORNIA
St George
MAIN GATE
Escalante
Las Vegas
La Junta
Springfield
KANSAS
Pittsburg
TUBA CITY
Clayton
NEW MEXICO
Gallup
Holbrook
Santa Rosa
ZERO HOUR
Oklahoma City
ARIZONA
Albuquerque
St Johns
CORONA
Phoenix
PRIMA DONNA
OKLAHOMA
Los Angeles
San Diego
Clifton
TRUTH OR CONSEQUENCES
Silver City
Tucson
Dallas
El Paso
TEXAS
Austin
San Antonio
Houston
Palacios
PACIFIC OCEAN
LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes
IRON MAN
Target
Aircraft Jet
Speed Sub-Sonic
Routes Flown IFR/VFR, Day/Night
May Be in Use 7 Days a Week
Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey
December 10, 1964



OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 10 statute miles on either side of the centerline except that on the VFR segments they will be contained within 5 statute miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

LEGEND

- CLIMB OUT TRACKS
- ENTRY TRACKS
- MANEUVER AREA OF BOMB RUNS
- BOMB RUN CORRIDOR
- RE-ENTRY TRACKS
- POSITIONS SPECIFIED IN TEXT
- 500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
- VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

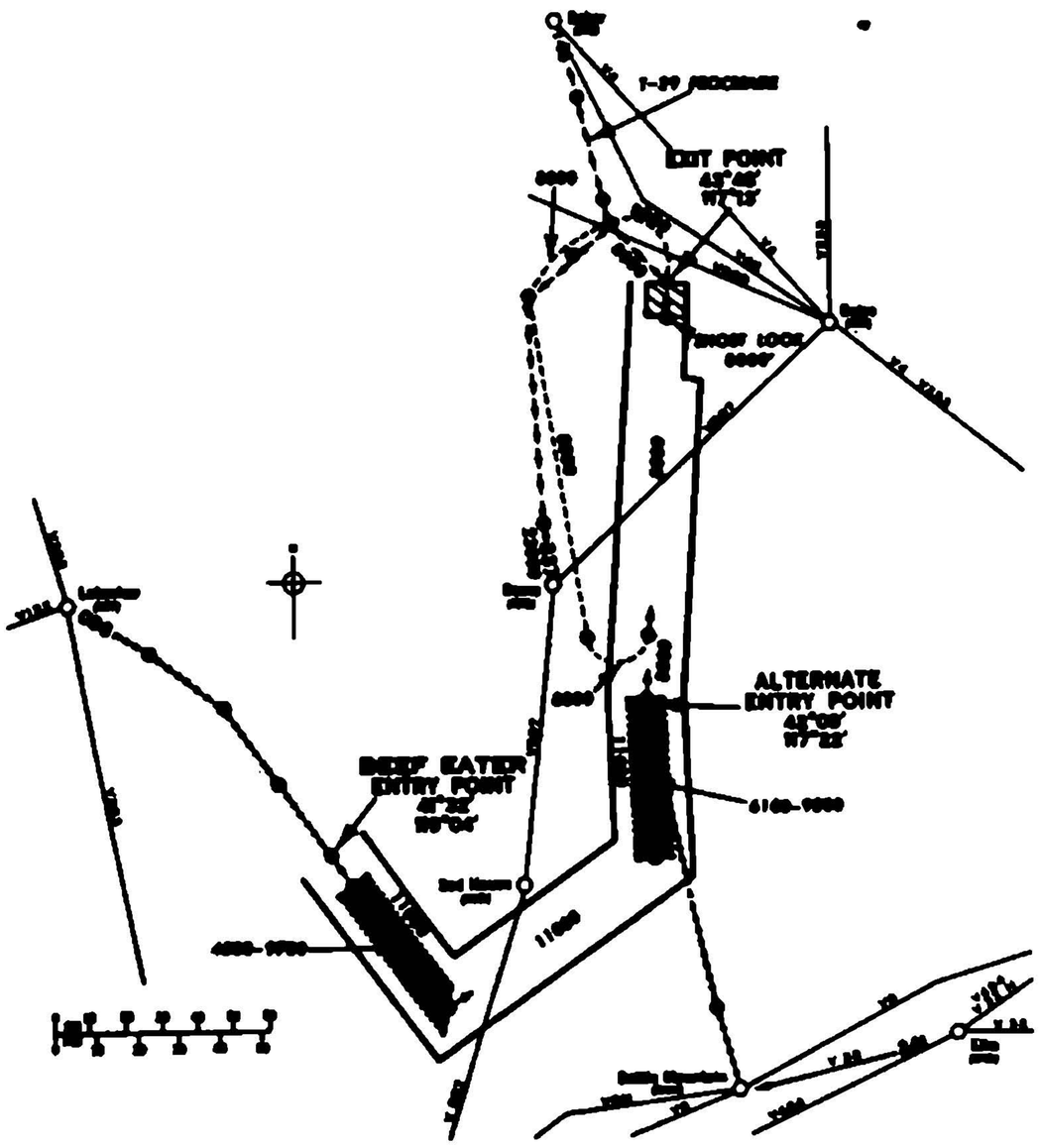
OIL BURNER ROUTES

NEVADA/OREGON

BEEF EATER

Effective May 3, 1964

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at 23,000′ MSL, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 096° radial until 22 NM east of the Lakeview VORTAC (42°-20′N, 120°04′W); then descend direct to cross 42°07′N, 119°39′W at or below 23,000′ MSL; then descend direct to cross 41°49′N, 119°21′W at or above 16,000′ MSL; then descend direct to cross the entry point of the low level route at 41°32′N, 119°04′W at 11,000′ MSL, then 11,000′ MSL direct 40°55′N, 118°27′W, then 11,000′ MSL direct 41°31′N, 117°20′W, then 11,000′. MSL direct 42°09′N, 117°22′W; then descend to cross 42°26′N, 117°20′W at 8000′ MSL, then 8000′ MSL direct 43°40′N, 117°13′30″W.



Short Look—After passing 43°40′N, 117°13′30″W aircraft shall maintain 8000′ MSL thru the bomb run corridor (5 SM either side of centerline from 43°40′N, 117°13′30″W to 43°48′N, 117°13′W). After exiting the route at 43°48′N, 117°13′W aircraft shall maintain 8000′ MSL direct 44°03′N, 117°31′W; then climb direct to cross 43°55′N, 117°44′W (reporting point—Beef Eater 1) at 10,000′ MSL; then climb direct to cross 43°45′N, 117°-59′W at or above 14,000′ MSL; then climb direct to cross 42°51′N, 117°54′W at 23,000′ MSL, then maintain 23,000′ MSL via the Rome 337° radial to the Rome, Ore. VOR

Re-Entry—After exiting the route at 43°48′N, 117°13′V aircraft shall maintain 8000′ MSL direct 44°03′N, 117° 31′W, then 8000′ MSL direct 43°45′N, 117°59′W, the 8000′ MSL direct 42°24′N, 117°41′W, then 8000′ MSL t re-enter the route via direct 42°26′N, 117°20′W.

VFR and Contour—If the encountered weather condition along the route are equal to or better than ceiling 3000 visibility 5 miles, the pilot may descend VFR and operat between the VFR altitudes indicated on the chart betwee the following points: From 41°25′N, 118°57′W to 40° 55′N, 118°27′W and from 41°31′N, 117°20′W to 42°09′N 117°22′W. During daylight hours some VFR operatior will be flown 500′ above the immediate terrain. VF operations conducted during the hours of darkness wi not be flown lower than 800′ above the terrain. Th lower VFR altitude shown on the chart is the minimu altitude that will be reached on each route segment du ing daylight hours.

Alternate Entry—Aircraft shall cross the Elko VORTA 241/54 DME fix (Battle Mountain VOR) (reportin point) at 23,000′ MSL or as assigned by ARTCC, the maintain assigned altitude direct 40°55′N, 117°01′W then descend direct to enter the route at 42°09′N, 117 22′W at 11,000′ MSL.

Route Width—The route width from 43°25′N, 117°15′V to 43°48′N, 117°13′W is reduced to 5 SM on the east sid of the centerline.

T–29 Procedure—Aircraft shall cross the Elko, Nevad VORTAC 241/54 (Battle Mountain VOR) (reportin point) as assigned by the ARTCC; then proceed via th alternate entry route to 43°48′N, 117°13′W exit poin of the bomb run corridor; then maintain 8,000′ MS direct 44°03′N, 117°31′W; then climb direct to cro 44°08′N, 117°33′W at or below 10,000′ MSL; then dire via Baker, Oregon, VORTAC 146 radial to cross Bak 146/19 (44°32′N, 117°42′W) at 14,000′ MSL or as a signed by the ARTCC; then maintain assigned altitud direct Baker VORTAC (44°51′N, 117°48′W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

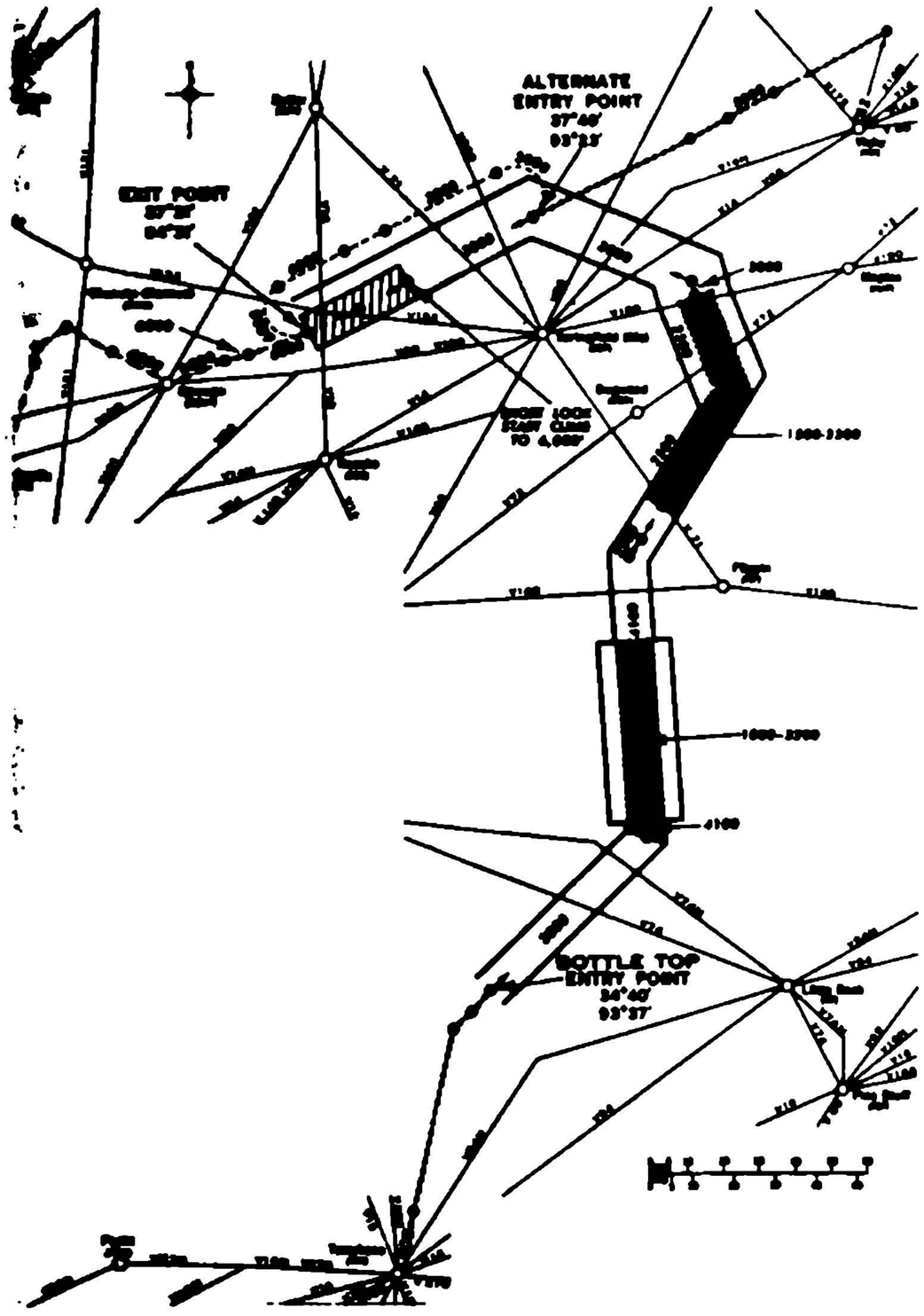
BOTTLE TOP

November 15, 1964

Aircraft shall cross the Texarkana, Ark. VORTA 005/15 at 19,000′ MSL or as assigned by ATC; then pr ceed outbound on the 005° radial descending so as cross 34°31′N, 93°48′W, at 6000′ MSL; direct descendi so as to cross 34°35′N, 93°43′W, at 4000′ MSL; th direct so as to cross the route entry point 34°40′ 93°37′W at 2800′ MSL, then 2800′ MSL direct 35°17′ 92°51′W; then climb direct so as to cross 35°21′N, 92 51′W, at 4100′ MSL, then 4100′ MSL direct to 36°26′ 92°55′W; then descend direct so as to cross 36°30′ 92°52′W, at 2500′ MSL, then 2500′ MSL direct 37°06′ 92°23′W, then 2500′ MSL direct 37°30′N, 92°34′W; th climb direct so as to cross 37°33′N, 92°35′W at 30 MSL, then 3000′ MSL direct 37°49′N, 93°23′W, then 30 MSL turn lef direct 37°33′30″N, 94°01′W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor (5 SM either side of centerline from 37°33'30''N, 94°-01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to 23,000' MSL direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 16,000' MSL; direct cross Bartlesville, Okla. at 23,000' MSL.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°-31'W, maintain 6000' MSL, turn right to 37°32'N, 94°-41'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°00'N, 93°34'W, then 3000' MSL turn right to 37°49'N, 93°23'W, thence via the published route.



VFR and Contour—If the encountered weather conditions ong the route are equal to or better than ceiling 3000', sibility 5 miles, the pilot may descend VFR and operate tween the VFR altitudes indicated on the chart be-een the following points: From 35°17'N, 92°51'W to °05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, °34'W. During daylight hours, some VFR operations ill be flown 500' above the immediate terrain. VFR erations conducted during the hours of darkness will t be flown lower than 800' above the terrain. The wer VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VOR-TAC 012/25 at 15,000' MSL or as assigned by ATC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°-06'N, 92°23'W is reduced to 5 SM either side of centerline and 5 SM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W.

Hours of Operation—0100Z to 1400Z, 7 days per week.

KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW

Effective September 6, 1964

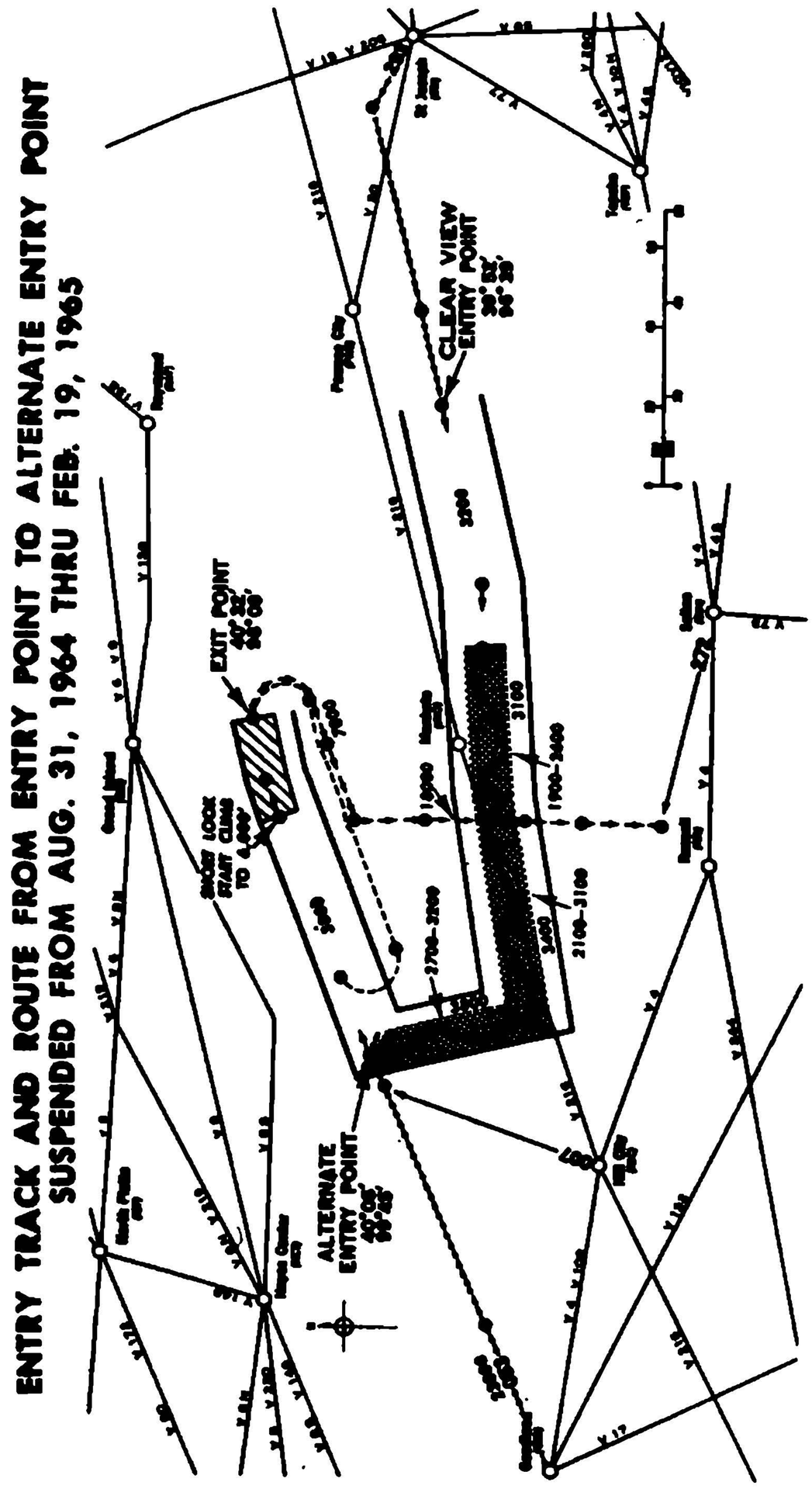
Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 293° radial, maintain FL 240 or above until 17 NM northwest of St. Joseph VOR; turn left direct 39°56'N, 96°12'W crossing this point at 9000' MSL, descend to 3200' MSL direct to the route entry point at 39°52'N, 96°39'W, maintain 3200' MSL direct 39°43'N, 97°30'W, descend to 3100' MSL direct 39°40'N, 98°30'W, climb to 3400' MSL direct 39°31'N, 99°34'W, climb to 3800' MSL direct 40°05'N, 99°45'W; maintain 3800' MSL direct 40°26'N, 98°37'W.

Short Look—After passing 40°26'N, 98°37'W, proceed direct to 40°29'N, 98°27'W climbing so as to cross this point at 6000' MSL; maintain 6000' MSL through the bomb run corridor (5 SM either side centerline from 40°26'N, 98°37'W to 40°32'N, 98°09'W); after exiting the route at 40°32'N, 98°09'W, turn right climbing to cross 40°20'N, 98°03'W at 7000' MSL; then at 7000' MSL direct 40°16'N, 98°16'W; then start climb so as to cross 40°10'N, 98°37'W at or below 14,000' MSL; then turn left climbing so as to cross 39°54'N, 98°37'W at 18,000' MSL; then at 18,000' MSL direct 39°33'N, 98°-37'W; then climb so as to cross 39°21'N, 98°37'W at or below 23,000' MSL, then start climb so as to cross the Salina VORTAC 272/48 at FL 250.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32'N, 98°-09'W, turn right climbing to 7000' MSL to 40°20'N, 98°03'W, maintain 7000' MSL direct 40°00'N, 99°14'W; turn right descending to 3800' MSL to 40°12'N, 99°22'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 39°42'N, 97°48'W to 40°05'N, 99°45'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Goodland, Kansas VOR at 23,000' MSL; and proceed northeast on the Goodland VOR 053° radial maintaining 23,000' MSL until 35 NM nrtheast of Goodland VOR, then descend so as to reach 5500' MSL by the Hill City, Kansas VOR 007/49 NM fix; then descend to 3800' MSL direct 40°05'N, 99°45'W, thence via the published route.



Route Width—The route width from 39°31′N, 99°34′W to the route exit point is 5 SM on the west and north side of the route centerline and 10 SM on the east and south side of the route centerline.

Hours of Operation—0000Z to 2359Z Monday through Saturday.

ALABAMA/MISSISSIPPI

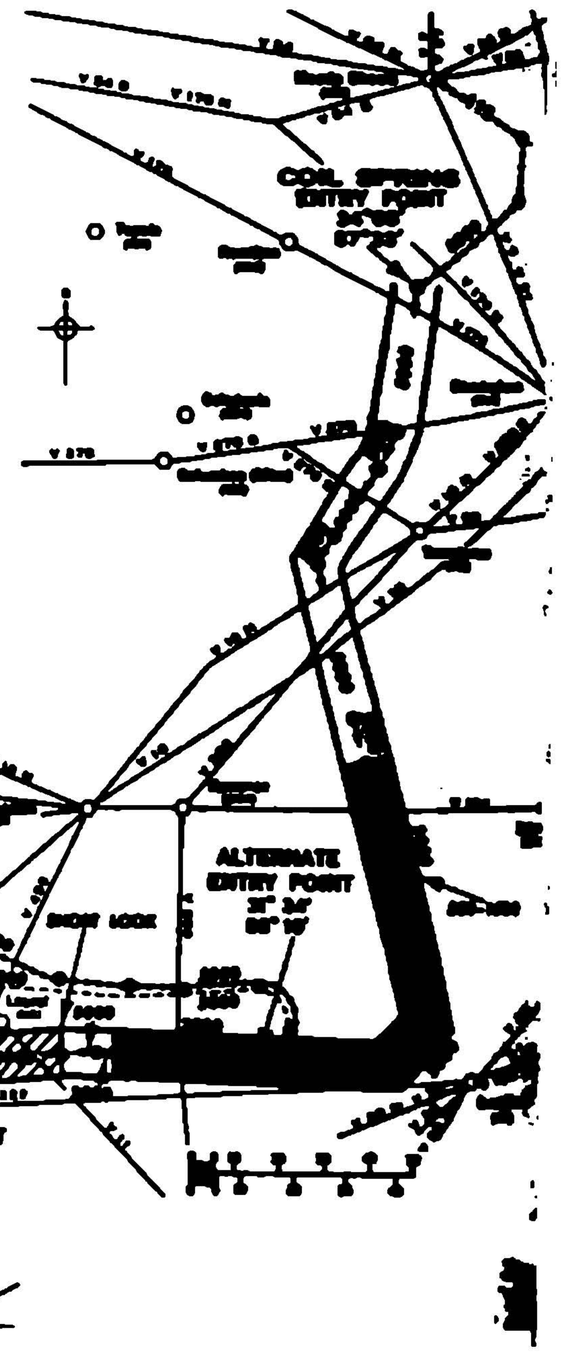
COIL SPRING

Effective October 18, 1964

Aircraft shall cross Muscle Shoals, Alabama VOR at 20,000′ MSL, or as assigned. Descend via Muscle Shoals VOR 115° radial, cross Muscle Shoals VOR 115°/24 NM at 12,000′ MSL; turn right, descend to cross 34°19′N, 87°06′W at 8000′ MSL, maintain 8000′ MSL direct to the route entry point at 34°03′N, 87°33′W, direct 33°-35′N, 87°38′W, direct 33°28′N, 87°42′W; descend direct to cross 33°15′N, 87°52′W at 5000′ MSL, maintain 500 MSL direct 33°10′N, 87°56′W, direct 32°40′N, 87°48′W descend to cross 32°31′N, 87°45′W at 2000′ MSL, main tain 2000′ MSL direct 31°41′N, 87°31′W, turn right t 31°33′N, 87°40′W, maintain 2000′ MSL direct 31°36′N 88°42′W; climb direct to cross 31°36′N, 88°46′W at 300 MSL, direct to cross 31°36′N, 88°55′W at 5000′ MSI In addition to the above, aircraft may climb to 300 MSL after 31°33′N, 87°40′W and maintain 3000′ MS to 31°36′N, 88°55′W during the hours 0600Z–1200Z.

Short Look—After passing 31°36′N, 88°55′W aircraf shall operate through the bomb run corridor at 500 MSL. In addition, aircraft may operate through th bomb run corridor at 3000′ MSL during the hours 0600Z 1200Z. (The bomb run corridor is 5 SM either sid centerline from 31°36′N, 88°55′W to 31°35′N, 89°14′W. After exiting the route at 31°35′N, 89°14′W, aircraf shall cross 31°36′N, 89°30′W at 5000′ MSL; start clim direct to cross 31°37′N, 89°56′W at 14,000′ MSL (r porting point), maintain 14,000′ MSL direct 31°33′ 90°25′W; start climb direct 31°32′N, 90°36′W, turn rigt to intercept Jackson, Miss. VORTAC 205° radial 56 N fix (31°42′N, 90°44′W) at or below 23,000′ MSL, thenc via 205° radial to cross 36 NM fix at FL 250, maintai FL 250 or as assigned to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an addition bomb run shall, after exiting the route at 31°35′ 89°14′W, turn right, cross 31°42′N, 89°22′W at 500 MSL, maintain 5000′ MSL, turn right to 31°49′N, 89 14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W turn right, cross 31°40′N, 88°03′W at 3000′ MSL; co tinue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thenc via published route.



VFR and Contour—If the encountered weather condition along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and op

ate VFR between the VFR altitudes indicated on the chart between the following points: From 32°31'N, 87°-45'W to 31°36'N, 88°42'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15''N, 90°15'29''W) at 23,000' MSL, or as assigned; maintain 23,000' MSL or as assigned via the McComb VOR 028° radial to 13 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°03'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

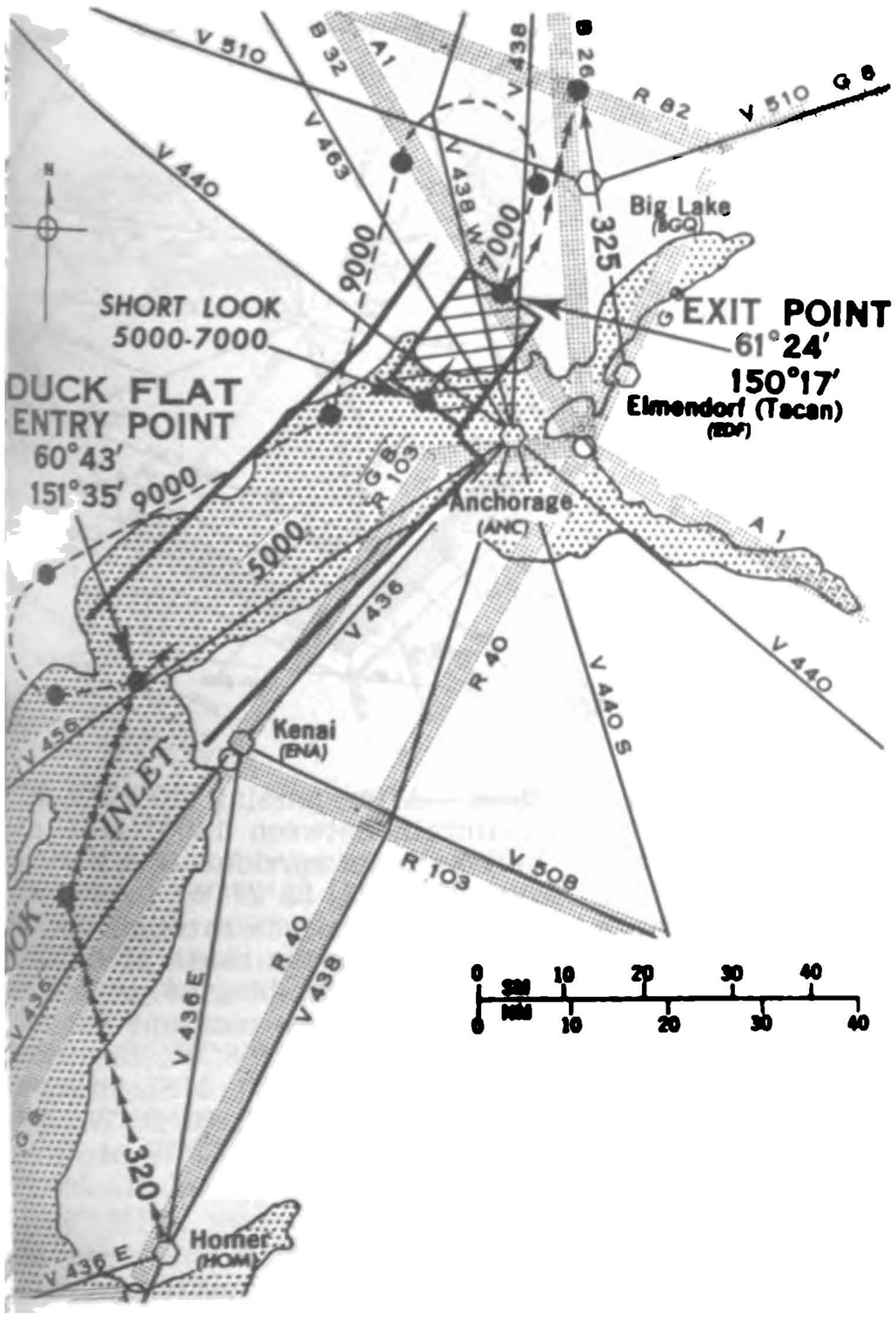
Route Width—The entire route is reduced to 5 SM either side of route centerline.

Hours of Operation—24 hours per day, 7 days a week.

DUCK FLAT

ALASKA

Effective June 16, 1963



Aircraft shall cross the Homer, Alaska VOR (reporting point) at FL 250 or as assigned by ARTCC, descend via the 320° radial of the Homer VOR to 60°20'N, 151°50'W, continue descent to cross the route entry point at 60°-43'N, 151°35'W at 5000' MSL, maintain 5000' MSL to 61°13', 150°34'W.

Short Look—After passing 61°13'N, 150°34'W aircraft shall maintain between 5000' MSL and 7000' MSL through the bomb run corridor (5 smi either side centerline from 61°13'N, 150°34'W to 61°24'N, 150°17'W). After passing 61°24'N, 150°17'W (reporting point), the route exit point, aircraft shall climb to or maintain 7000' MSL direct to the Elmendorf TACAN 325° radial 30 NM fix (Willow Intersection).

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 61°24'N, 150°17'W, maintain 7000' MSL to 61°35'N, 150°08'W, then turn left climbing to 9000' MSL direct to 61°38'N, 150°38'W, then 9000' MSL to 61°13'N, 150°54'W, then 9000' MSL direct 60°53'N, 151°57'W, then a left descending turn to cross 60°41'N, 151°54'W at 7000' MSL or above, direct to reentry the Duck Flat route at 60°43'N, 151°35'W at 5000' MSL.

Route Width—The route width is reduced to 5 smi southeast of centerline from 61°13'N, 150°34'W to 61°24'N, 150°17'W.

Hours of Operation—2000Z to 2400Z Monday through Friday.

ALABAMA/MISSISSIPPI/TENNESSEE

FAST FREEZE

Effective January 4, 1965 through March 27, 1965

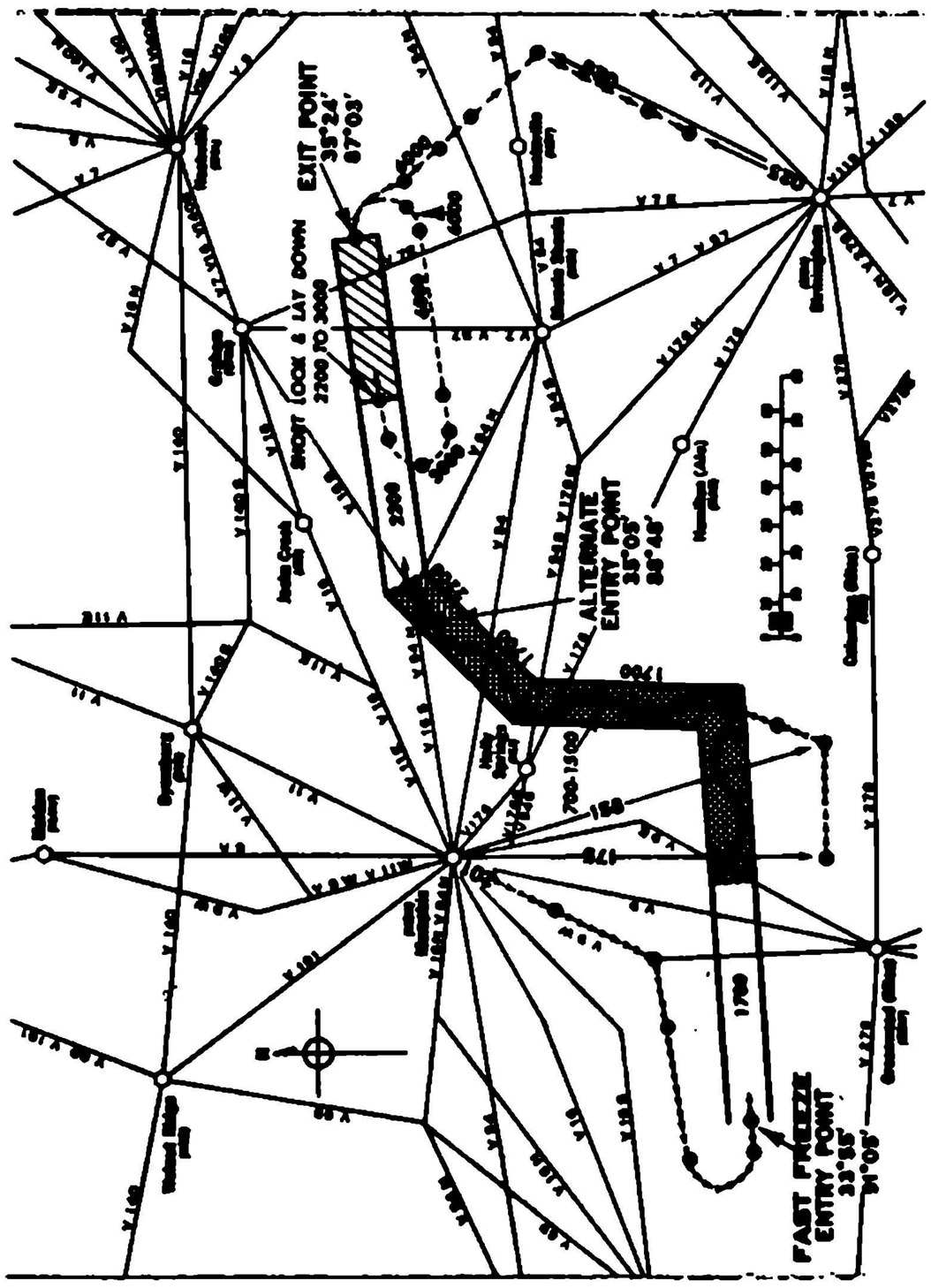
Aircraft shall cross the Memphis, Tennessee, VORTAC at FL 250 or as assigned by ARTC; then maintain FL 250 or assigned altitude via the 201° radial of the Memphis VORTAC to the 26 NM DME fix (34°39'N, 90°-08'W); then descend direct so as to cross 34°17'N, 90°21'W (201/50 NM DME fix of Memphis VORTAC) at FL 200; then descend direct so as to cross 34°14'N, 90°40'W at 16,000' MSL; then descend direct to 34°08'N, 91°16'W; then turn left descending to 33°54'N, 91°13'W; then continue descend direct so as to cross 33°55'N, 91°-05'W at 1700' MSL (low level entry point); then at 1700' MSL direct to 34°03'N, 89°12'W; then at 1700' MSL direct to 34°47'N, 89°11'W; then at 1700' MSL direct to 35°05'N, 88°48'W; then at 2200' MSL direct to 35°13'N, 88°39'W; then at 2200' MSL direct to 35°19'N, 87°47'W.

Short Look and Lay Down—After passing 35°19'N, 87°-47'W aircraft shall maintain between 2200' MSL and 3000' MSL through the bomb run corridor (5 statute miles either side of centerline from 35°19'N, 87°47'W to 35°24'N, 87°03'W). After exiting the route at 35°-24'N, 87°03'W, aircraft shall turn right climbing so as to cross 35°14'N, 86°47'W at 6000' MSL; then at 6000' MSL to 35°05'N, 86°38'W; then climb direct so as to cross 34°58'N, 86°30'W at 10,000' MSL or above; then climb direct so as to cross 34°43'N, 86°13'W at (026/71 NM DME fix of Birmingham, Alabama, VORTAC) at 15,000' MSL; then climb direct so as to cross 34°18'N, 86°30'W (025/43 NM DME fix of Birmingham, Alabama, VORTAC) at FL 220 or above; then climb direct so as to cross 34°09'N, 86°36'W (025/33 NM DME fix of Birmingham, Alabama, VORTAC) at FL 240.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 35°24'N, 87°03'W, turn right

and climb so as to cross 35°13′N, 86°55′W at 6000′ MSL; then continue turn at 6000′ MSL to 35°10′N, 87°01′W; then at 6000′ MSL direct to 35°05′N, 87°46′W; then descend direct so as to cross 35°04′N, 87°56′W at 3000′ MSL; then at 3000′ MSL turn right to 35°10′N, 88°-06′W; then turn right descending so as to cross 35°17′-30′′N, 87°59′W at 2200′ MSL; then at 2200′ MSL direct to 35°19′N, 87°47′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 34°00′N, 90°00′W to 35°13′N, 88°39′W. During daylight hours, some VFR operations will be flown 500 feet above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800 feet above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.



Alternate Entry—Aircraft shall cross the 175/88 NM DME fix of the Memphis, Tennessee, VORTAC (33°39′N, 89°53′W) at FL 200 or as assiged by ARTC; then descend direct to 33°39′N, 89°22′W (158/86 NM DME fix of the Memphis VORTAC); then continue descent direct so as to cross 33°50′N, 89°18′W at 10,000′ MSL or below; then descend direct so as to cross 34°03′N, 89°12′W at 6000′ MSL; then descend direct so as to cross 34°19′N, 89°12′W at 1700′ MSL; then at 1700′ MSL direct to 34°47′N, 89°11′W; then at 1700′ MSL direct 35°05′N, 88°48′W; thence via the published route.

Route Width—The route width is reduced to 5 statu miles on either side of centerline from 33°55′N, 91°05′ to 35°24′N, 87°03′W.

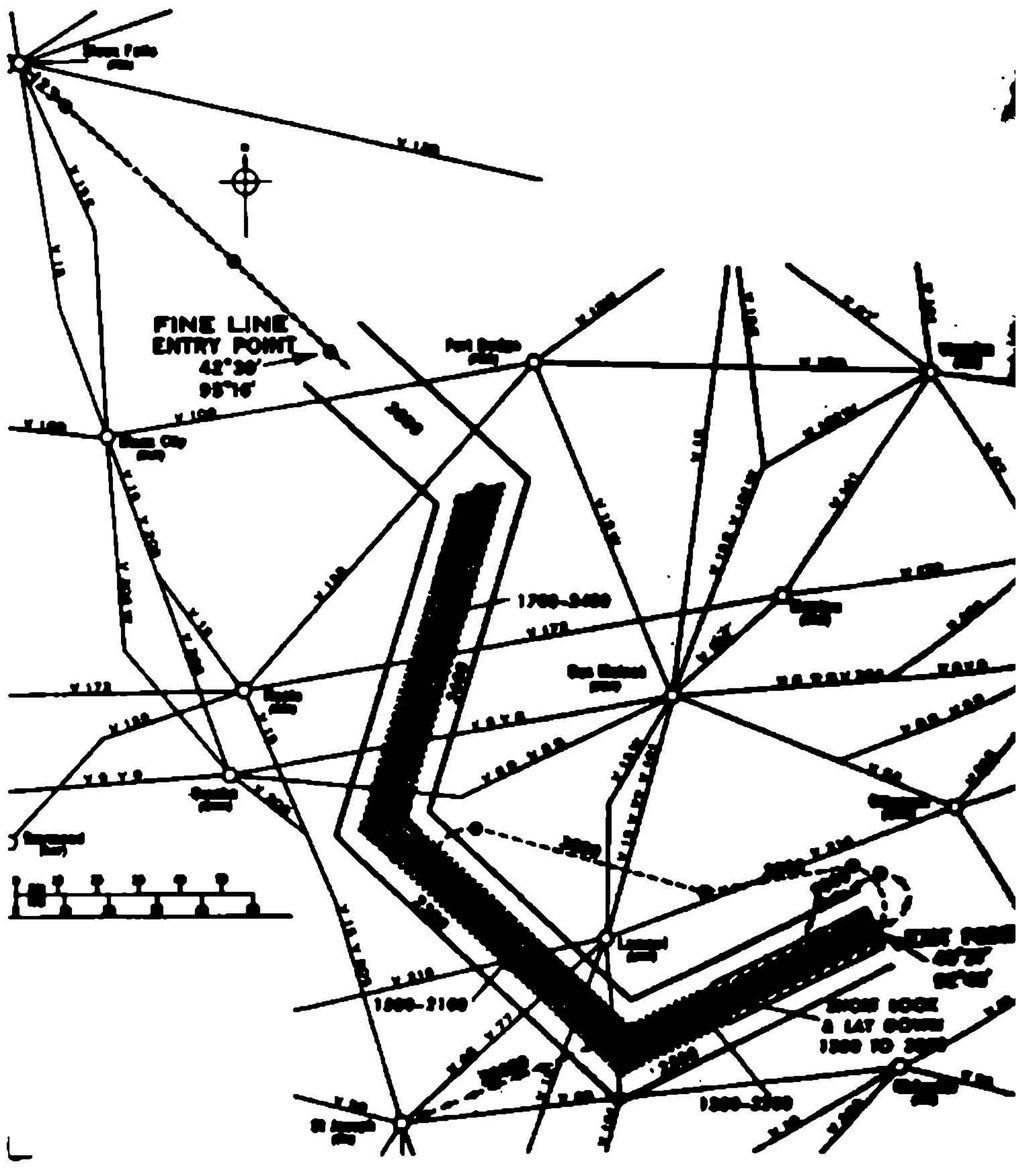
Hours of Operation—24 hours daily, 7 days per week.

IOWA/MISSOURI

FINE LINE

Effective August 31 thru February 19, 1965

Aircraft shall cross the Sioux Falls, South Dako VORTAC at 23,000′ MSL or as assigned by ARTCC a proceed via the 123° radial maintaining 23,000′ MSL assigned altitude until 13 NM southeast; then descer via the 123° radial of the Sioux Falls VORTAC so to cross 42°58′N, 95°44′W at 11,000′ MSL or below; th descend direct so as to cross the route entry point 42 39′N, 95°16′W at 2800′ MSL; then at 2800′ MSL dire to 42°10′N, 94°33′W; then at 2600′ MSL direct to 41 00′N, 95°01′W; then at 2500′ MSL direct to 40°12′ 93°53′W; then at 2500′ MSL direct to 40°22′N, 93°27′W



Short Look and Lay Down—After passing 40°22′N, 93° 27′W, aircraft shall maintain between 1300′ MSL an 3000′ MSL through the bomb run corridor (5 SM eithe side of centerline from 40°22′N, 93°27′W to 40°37′N 92°43′W). The minimum IFR altitude through the co ridor is 2500′ MSL. After exiting the route at 40°37′N 92°43′W, aircraft shall turn left climbing so as to cros 40°48′N, 92°41′W at 9000′ MSL; then continue left tur maintaining 9000′ MSL to 40°42′N, 92°58′W; then climb so as to cross 40°30′N, 93°08′W at 14,000′ MSL or below then continue climb direct to 40°28′N, 93°09′W; the climb direct so as to cross 40°19′N, 93°42′W at 23,00 MSL; then at 23,000′ MSL direct to the St. Joseph Missouri VORTAC.

Re-Entry—After completing the initial bomb run, air craft that are scheduled to execute an additional bom

run shall, after passing 40°37′N, 92°43′W, turn left and climb to or maintain 3000′ MSL to 40°50′N, 92°49′W; then at 3000′ MSL direct to 40°45′N, 93°30′W; then at 3000′ MSL direct to 40°59′N, 94°35′W; then turn left descending to intercept the Oil Burner Route at 40°48′N, 94°44′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°10′N, 94°33′W to 40°37′N, 92°43′W. During daylight hours, some VFR operations will be flown 500 feet above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800 feet above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

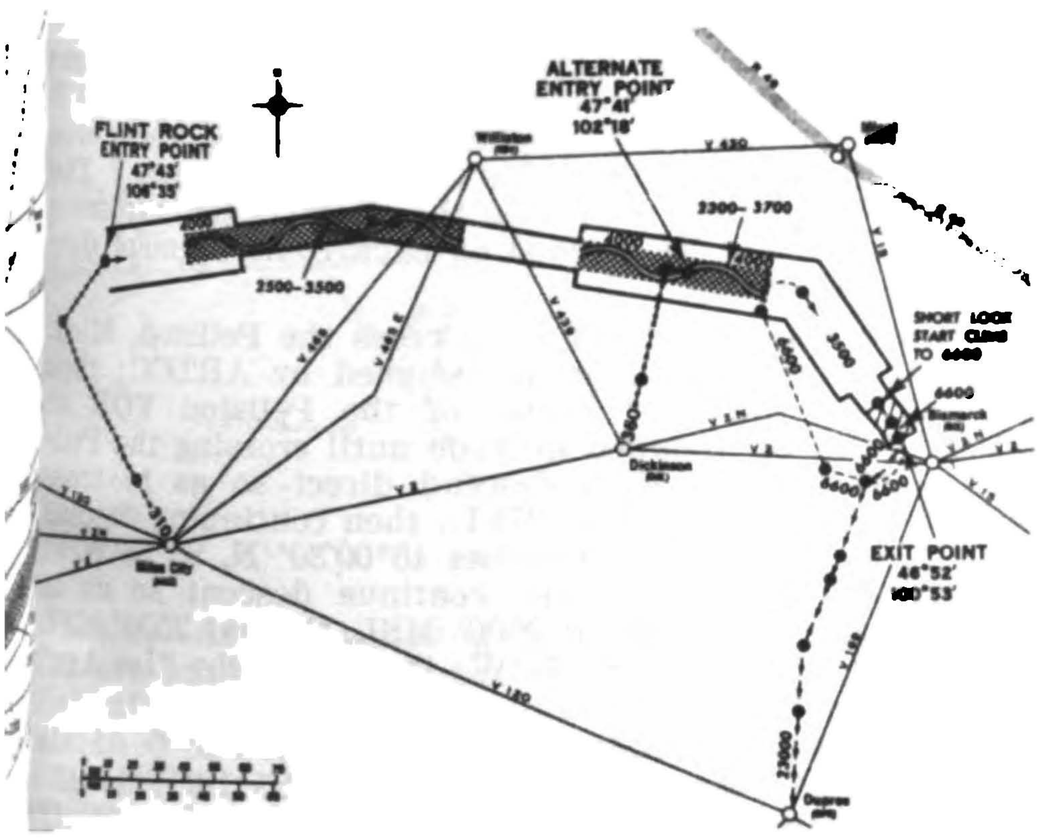
Hours of Operation—24 hours daily 7 days per week.

FLINT ROCK

MONTANA/NORTH DAKOTA

Effective June 14, 1964

Aircraft shall cross the Miles City, Mont. VORTAC (reporting point) at 23,000′ MSL, or as assigned by ARTCC, and proceed via the 310° radial, maintaining 23,000′ or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.



Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 5 SM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to 23,000′ MSL direct to 45°53′N, 101°35′W; direct to Dupree VORTAC, climbing so as to cross 46°19′N, 101°19′W at or above 11,000′ MSL, crossing 46°13′N, 101°23′W at or below 19,000′ MSL; crossing 45°53′N, 101°35′W at 21,000′ MSL, and to reach 23,000′ MSL at a point 30 nautical miles northeast of the Dupree VORTAC.

No-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52′N, 100°53′W maintain 6600′ MSL direct 46°39′N, 101°07′W; then at 6600′ MSL make a right turn direct to 46°43′N, 101°24′W; then at 6600′ MSL direct 47°30′N, 101°49′W; then a right decending turn so as to reenter the route at 47°-35′N, 101°31′W at 3500′ MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 105°53′W to 47°53′N, 103°53′W and from 47°47′N, 103°03′W to 47°37′N, 101°45′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

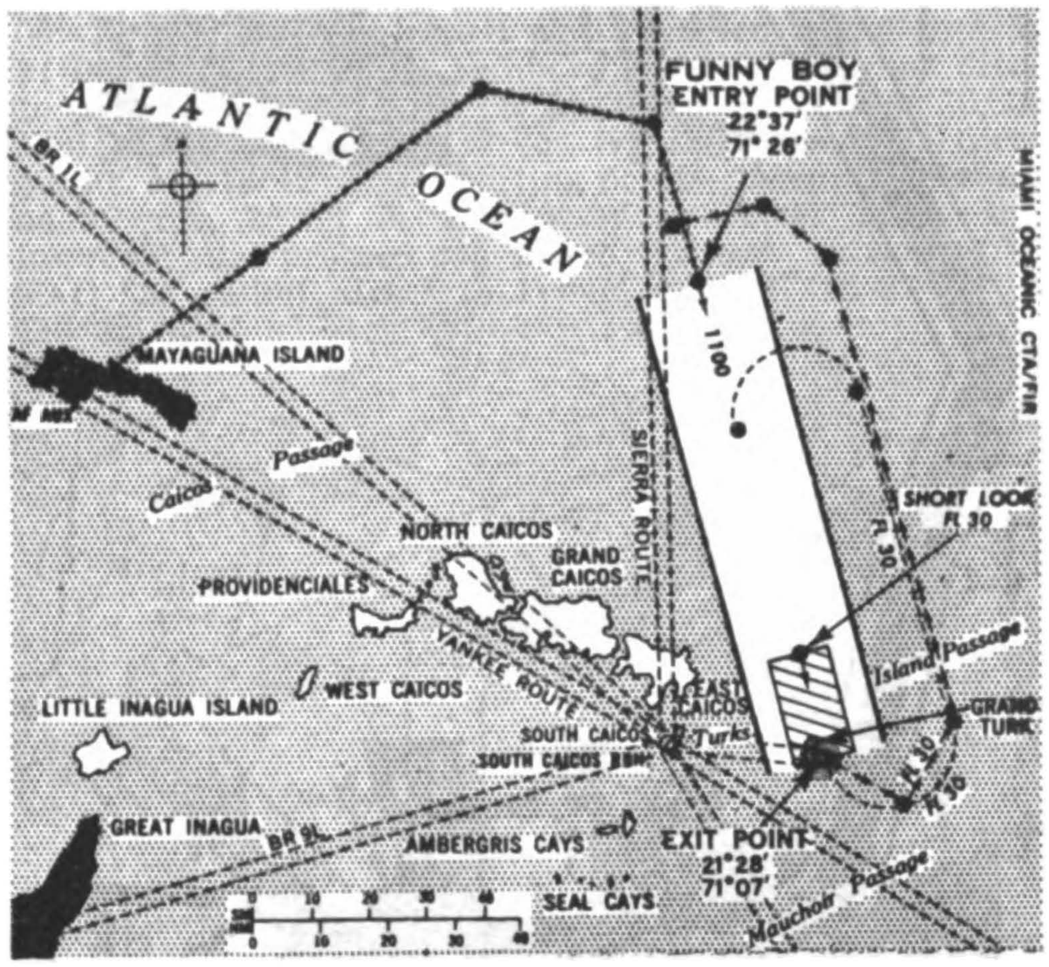
Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000′ MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000′ MSL, or assigned flight level/altitude, direct to a point 20 NM north of the Dickinson VORTAC; then descend so as to cross 47°42′-30′′N, 102°27′W at 6000′ MSL; then a descending right turn so as to cross 47°41′N, 102°18′W at 4000′ MSL, thence via the published route.

Route Width—The route width is reduced to 5 SM on either side of centerline from 47°50′N, 105°30′W to 47°-47′N, 103°03′W and from 47°07′N, 101°06′W to 46°52′N, 100°53′W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY

Effective December 1, 1963



Aircraft shall cross 22°23′N, 73°02′W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned 22°41′N, 72°35′W (reporting point); start descent, cross 23°05′N, 72°00′W at FL 150; right turn, cross 23°00′N, 71°33′W at FL 90 or below; cross 22°37′N, 71°26′W at 1100′ MSL; the route entry point, maintain 1100′ MSL direct 21°43′N, 71°11′W.

Short Look—After passing 21°43′N, 71°11′W aircraft shall climb to FL 30 and maintain FL 30 through the bomb run corridor (5 SM either side of centerline from 21°43′N, 71°11′W to 21°28′N, 71°07′W). After exiting the low level route at 21°28′N, 71°07′W, maintain FL 30, direct 21°21′N, 70°54′W; direct 21°33′N, 70°47′W; start climb cross 22°40′N, 71°06′W at FL 250 or above; left turn to 22°48′N, 71°16′W; cross 22°45′N, 71°30′W at FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, aircraft scheduled to execute an additional bomb run shall, after exiting the low level route at 21°28′N, 71°07′W; maintain FL 30; direct 21°21′N, 70°54′W; direct 21°33′N, 70°47′W; direct 22°21′N, 71°01′W; left turn descend to cross 22°16′N, 71°20′W at 1100′ MSL; thence via "Funny Boy" route.

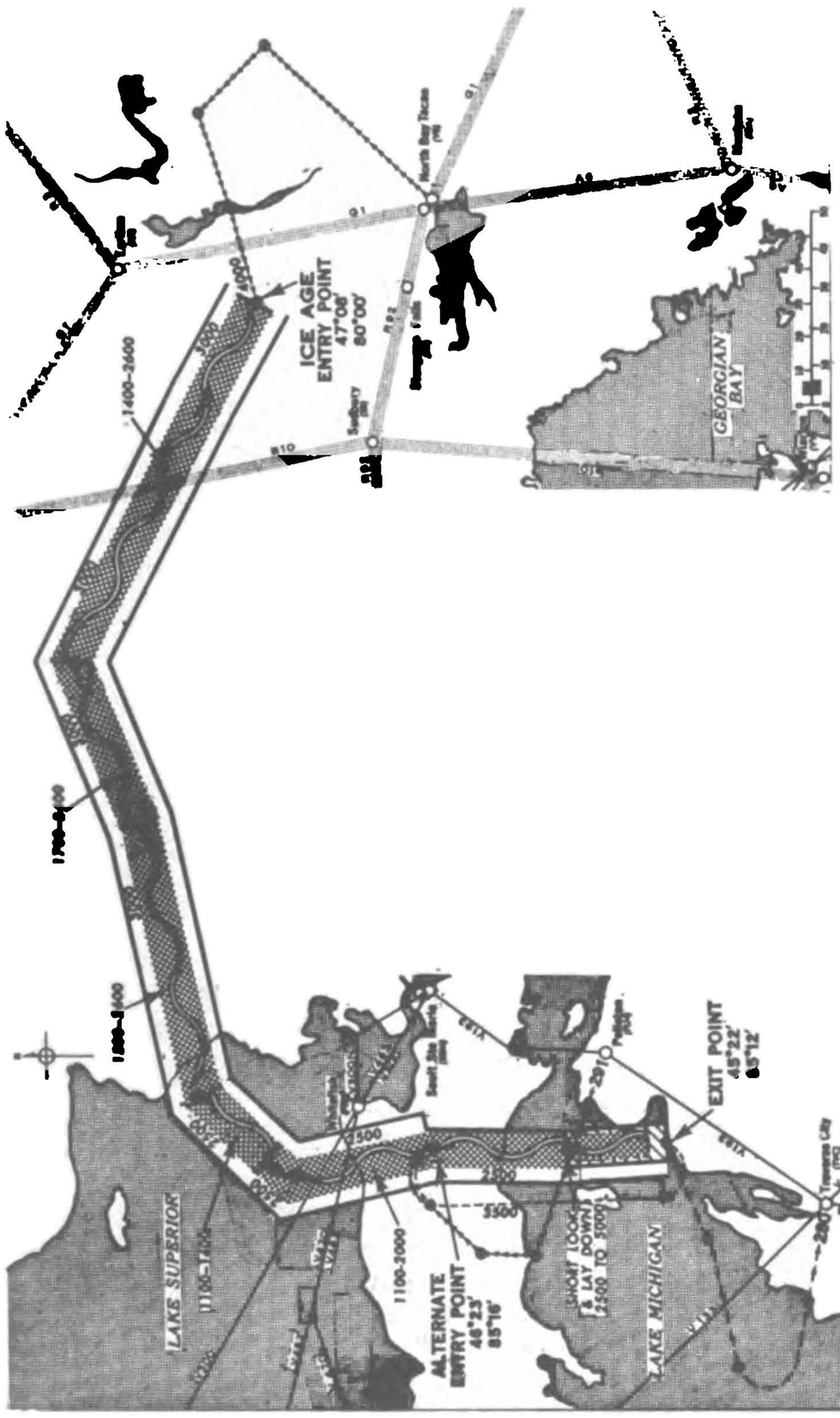
Hours of Operation—0000Z to 2359Z Monday through Saturday.

MICHIGAN/ONTARIO, CAN.

ICE AGE

Effective September 6, 1964

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°-04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°-25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°-15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°-12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at 21,000′ MSL. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°-37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°08′N, 80°00′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000′ MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000′ MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 5 statute miles east of centerline from 46°23′N, 85°16′W to 45°-22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

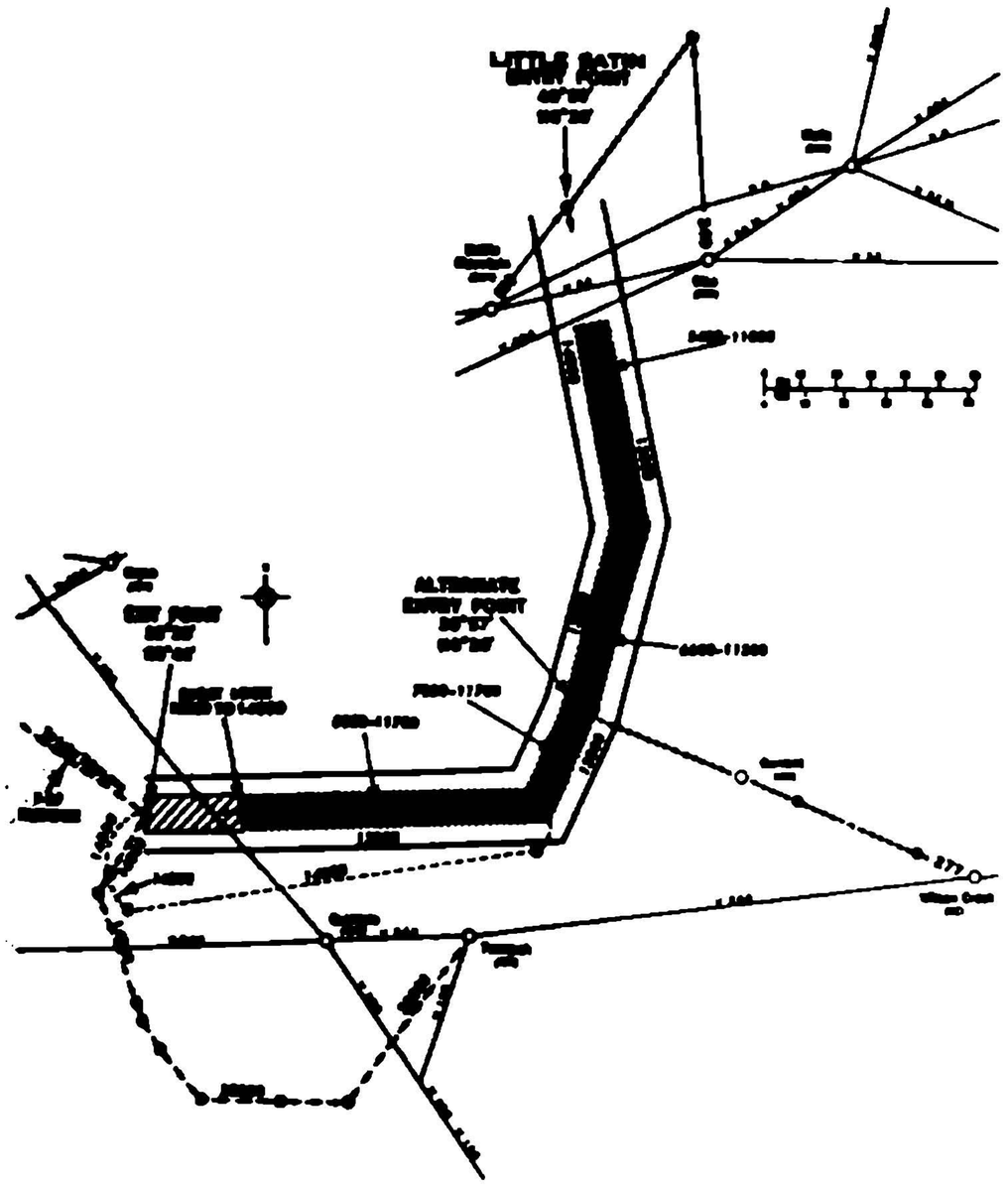
LITTLE SATIN

Effective May 3, 1964

Aircraft shall cross 41°40′N, 115°49′W (Elko VOR-TAC 340°/55 NM DME fix) (reporting point) at 23,000′ MSL or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 019°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct

38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (5 SM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall maintain 14,000' MSL direct 38°10'N, 119°00'W, then 14,000' MSL direct 37°43'N, 118°46'W (reporting point "Little Satin 2"); then climb direct to cross 37°40'N, 118°43'W at or above 14,300' MSL and 37°33'N, 118°37'W at or above 15,000' MSL; then climb to 20,000' MSL direct 37°21'N, 118°25'W, then 20,000' MSL direct to 37°21'N, 118°-0'W (reporting point "Little Satin 3"); then climb direct to cross 37°21'N, 117°40'W at 23,000' MSL, then 23,000' MSL direct to Tonopah, Nev. VOR.



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W (reporting point "Little Satin 1"), then 14,000' MSL direct 38°23'N, 116°40'W; then descend to 13,000' MSL direct to re-enter the route at 38°34'N, 116°40'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 40°30'N, 116°22'W to 38°31'N, 118°12'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nev. VOR (reporting point) at 23,000' MSL or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21'N, 114°41'W); then descend direct to cross 38°34'N, 115°18'W at or below 15,000' MSL; then descend direct via the Currant, Nev. VOR to cross 38°57'N, 116°26'W at 13,000' MSL, thence via the published route.

I-29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15'N, 114°23'W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30'N, 118°44'W exit point of the bomb run corridor; then climb to 14,000' MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11' N, 120°16'W).

Hours of Operation—24 hours daily, 7 days a week.

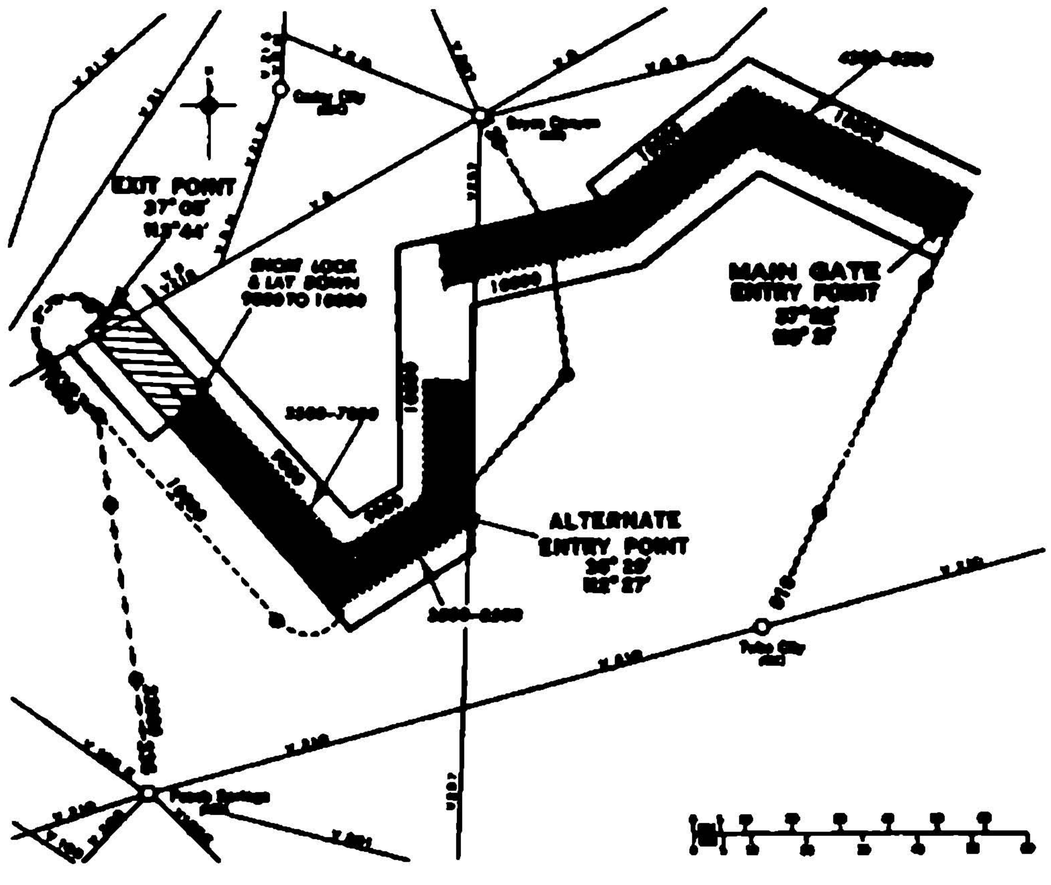
ARIZONA/UTAH

MAIN GATE

Effective May 17, 1964

Aircraft shall cross the Tuba City, Arizona VOR (36°-07'30" N, 111°16' W) (reporting point) at 23,000' MSL or as assigned by ARTCC; then maintain assigned altitude via Tuba City 010 radial until 23 nautical miles north (36°28' N, 111°04' W); then descend direct to cross 37°10' N, 110°39' W at or above 12,000' MSL, then direct to cross 37°22' N, 110°31' W at 10,000' MSL (entry point of the low level route) then 10,000' MSL direct 37°41'N, 111°17'; then 10,000' MSL direct 37°-22' N, 111°48' W; then 10,000' MSL direct 37°15' N, 112°27' W; then 10,000' MSL direct 36°29' N, 112°27' W; then descend direct to cross 36°17' N, 112°51' W at 9,000' MSL; then 9,000' MSL direct 36°48' N, 113°25' 9000' MSL; then 9000' MSL direct 36°48'N, 113°25'W.

Short Look and Lay Down—After passing 36°48' N, 113°-25'W, aircraft shall operate between 9,000' MSL and 10,000' MSL through the bomb run corridor (5 SM either side of centerline from 36°48' N, 113°25' W to 37°05' N, 113°44' W). After exiting the route at 37° 05' N, 113°44' W, aircraft shall proceed direct to cross 37°06' N, 113°47' W at or above 9,200' MSL; then direct to cross 36°57' N, 113°57' W at 10,000' MSL; then 10,000' MSL direct 36°46' N, 113°45' W; then climb via direct 36°30' N, 113°42' W (reporting point—"Main Gate 1") so as to cross 35°58' N, 113°36' W at 23,000' MSL; then intercept and proceed via Peach Springs, Arizona VOR-TAC 336 radial direct to Peach Springs (35°37'30" N, 113°32' W).



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 37°05′N, 113°44′W proceed direct to cross 37°06′N, 113°47′W at or above 9200′ MSL; then direct to cross 36°57′N, 113°57′W at 10,000′ MSL; then 10,000′ MSL direct 36°09′N, 113°05′W; then descend direct to cross 36°17′N, 112°51′W at 9000′ MSL; then via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visbility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 37°22′N, 110°31′W to 37°15′N, 112°27′W and from 36°52′N, 112°27′W to 36°48′N, 113°25′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft cross the Bryce Canyon, Utah VOR (37°41′30″N, 112°18′W) (reporting point) at 23,000′ MSL or as assigned by ARTCC; then proceed direct via Bryce Canyon 135 radial until 25 NM southeast (37°19′N, 112°02′W); then descend direct to cross 36°54′N, 112°-00′W at 14,000′ MSL; then direct to cross 36°29′N, 112°-27′W at 10,000′ MSL; thence via published route.

Hours of Operation—Twenty-four hours per day, seven days a week.

Route Width—The route width is reduced to 5 statute miles on the north side of course from 37°22′N, 111°48′W to 37°15′N, 112°27′W; 5 statute miles east side of course from 37°15′N, 112°27′W to 36°29′N, 112°27′W and 5 statute miles southwest of course from 36°17′N, 112°51′W to 36°48′N, 113°25′W.

KENTUCKY/TENNESSEE

ORANGE TREE

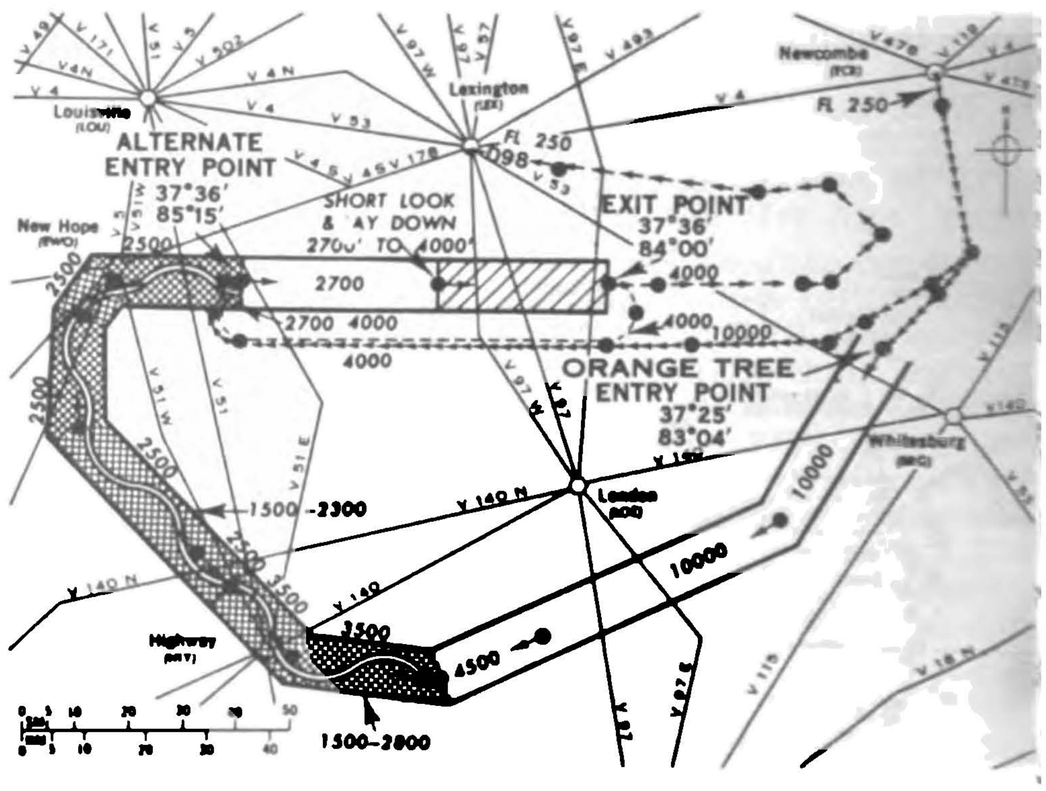
Effective November 1, 1964

Aircraft shall cross the Newcomb, Kentucky VOR at FL 250; maintain FL 250 direct 38°05′N, 82°53′W; then start descend so as to cross 37°41′N, 82°48′W at 17,000′ MSL; cross 37°34′N, 82°55′W at 14,000′ MSL; then continue descent so as to cross the route entry point at 37°25′N, 83°04′W at 10,000′ MSL, then at 10,000′ MSL direct 36°57′N, 83°25′W, then at 10,000′ MSL direct 36°38′N, 84°13′W; then start descent so as to cross 36°-31′N, 84°33′W at 4500′ MSL; then descend so as to cross 36°31′N, 84°36′W at 3500′ MSL, then at 3500′ MSL direct 36°34′N, 85°03′W, then at 3500′ MSL direct 36°46′N, 85°16′W; then descend so as to cross 36°51′N, 85°22′W at 2500′ MSL, then at 2500′ MSL direct 37°11′N, 85°-47′W, then at 2500′ MSL direct 37°30′N, 85°46′W, then at 2500′ MSL turn right to 37°35′N, 85°42′W, then at 2500′ MSL direct 37°36′N, 85°17′W; then climb so as to cross 37°36′N, 85°15′W at 2700′ MSL, then at 2700′ MSL direct to 37°36′N, 84°35′W.

Short Look and Lay Down—After passing 37°36′N, 84°-35′W aircraft shall maintain between 2700′ MSL and 4000′ MSL through the bomb run corridor (5 SM either side of centerline from 37°36′N, 84°35′W to 37°36′N, 84°00′W; the minimum IFR altitude thru the bomb run corridor is 2700′ MSL). After exiting the route at 37°-36′N, 84°00′W aircraft shall cross 37°36′N, 83°50′W at 4000′ MSL; then at 4000′ MSL direct 37°36′N, 83°20′W; then start climb direct 37°36′N, 83°15′W; cross 37°44′N, 83°05′W at or below 9000′ MSL; continue climb direct 37°52′N, 83°15′W; then climbing direct so as to cross 37°51′N, 83°30′W at or below 17,000′ MSL; then via the Lexington VORTAC 098° radial climbing so as to cross 37°56′N, 84°11′W (Lexington VORTAC 098/14) at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36′N, 84°00′W, turn right so as to cross 37°31′N, 83°55′W at 4000′ MSL, then at 4000′ MSL continue right turn to 37°26′N, 84°-00′W, then at 4000′ MSL direct 37°26′N, 85°15′W; then turn right descending so as to cross 37°31′N, 85°20′W at 2700′ MSL, then at 2700′ MSL continue right turn to 37°36′N, 85°15′W, thence via the "ORANGE TREE" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 36°31′N, 84°33′W to 37°36′N, 85°15′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.



Alternate Entry—Aircraft shall cross the Newcomb, Ky VOR at FL 250, then at FL 250 direct 38°05′N, 82°53′W; then start descent so as to cross 37°41′N, 82°48′W at 17,000′ MSL; cross 37°35′N, 82°56′W at 14,000′ MSL; cross 37°29′N, 83°08′W at 10,000′ MSL; then at 10,000′ MSL direct 37°26′N, 83°15′W; direct 37°26′N, 83°42′W; then start descent so as to cross 37°26′N, 84°00′W at 4000′ MSL; then at 4000′ MSL direct to 37°26′N, 85°-15′W; then turn right descending so as to cross 37°31′N 85°20′W at 2700′ MSL; then at 2700′ MSL direct to 37°36′N, 85°15′W; thence via the established route.

Route Width—The route width is reduced to 5 statute miles on either side of centerline throughout the entire route.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

COLORADO/NEBRASKA/WYOMING

POOL SHARK

Effective January 4, 1965 through June 26, 1965

Aircraft shall cross 42°14′N, 107°07′W (Casper, Wyoming, VORTAC 201/63) at FL 220; then direct

42°14'N, 106°35'W; then descend direct to cross 42°14'N, 106°26'W at FL 200; then maintain FL 200 direct 42°-14'N, 105°59'W; then descend direct to cross 42°14'N, 105°46'W at 17,000' MSL; then maintain 17,000' MSL direct 42°13'N, 105°20'W, then maintain 17,000' MSL direct to the route entry point at 42°09'N, 104°53'W, then descend direct to cross 42°07'N, 104°42'W at 16,000' MSL; then descend direct to cross 41°47'N, 104°22'W at 8000' MSL; then descend direct to cross 41°33'N, 104°-08'W at 7300' MSL; then direct 41°07'N, 103°39'W; then descend direct to cross 41°03'N, 103°35'W at 6100' MSL; then 6100' MSL direct to 40°27'N, 102°57'W then descend direct so as to cross 40°25'N, 102°55'W at 5800' MSL then at 5800' MSL direct to 40°20'N, 102°49'W; then 5800' MSL direct 39°47'N, 102°49'W; then 5800' MSL direct 39°05'N, 102°33'W.

Short Look and Lay Down—After passing 39°05'N, 102°-33'W, aircraft shall maintain between 5800' MSL and 7000' MSL through the bomb run corridor (5 SM either side of centerline from 39°05'N, 102°33'W to 38°32'N, 102°21'W). After exiting the route at 38°32'N, 102°-21'W; aircraft shall climb direct to cross 38°24'N, 102°-20'W at 9000' MSL; then maintain 9000' MSL direct 37°59'N, 102°18'W; then 9000' MSL direct 37°45'N, 102°27'W; then climb direct to cross 37°40'N, 102°31'W at 12,000' MSL; then 12,000' MSL direct 37°20'N, 102°-39'W; then climb direct to cross 37°09'N, 102°44'W at or above 16,000' MSL; then climb direct to cross 36°-49'N, 102°40'W at FL 210; then maintain FL 210 direct to Dalhart, Texas, VORTAC.

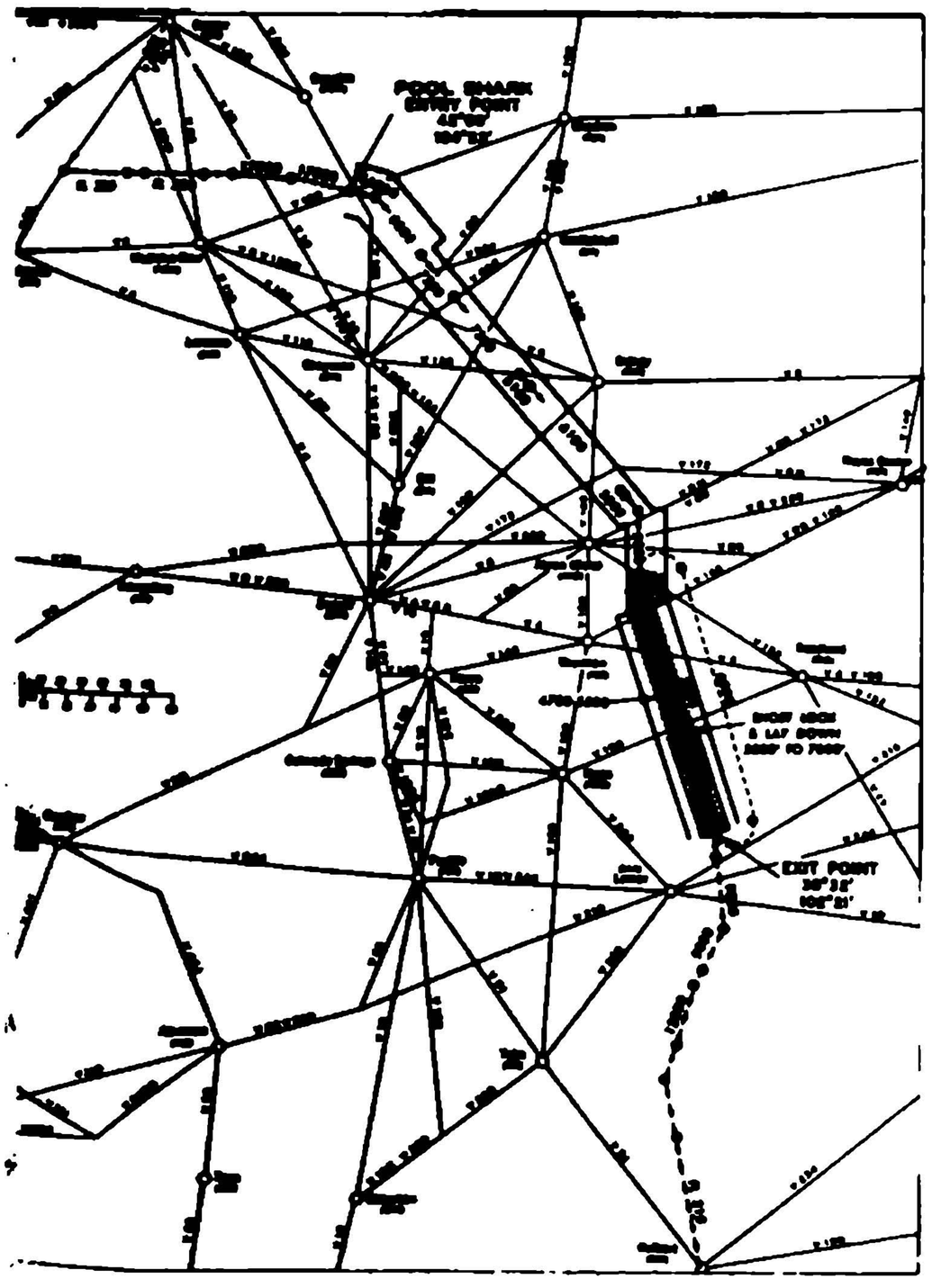
Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°32'N, 102°21'W, turn left to cross 38°35'N, 102°04'W at 6000' MSL; then 6000' MSL direct to 40°00'N, 102°31'W; then turn left to cross 40°00'N, 102°49'W at 5800' MSL, thence via the published route.

Alternate Entry—None.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart bewteen the following points 40°00'N, 102°49'W to 38°-32'N, 102°21'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Route Width—The route width is reduced to 5 SM on the NE side of the centerline from 41°47'N, 104°22'W to 40°20'N, 102°49'W, and to 5 SM on the west side of centerline from 40°20'N, 102°49'W to 39°47'N, 102°49'W.

Hours of Operation—24 hours daily, 7 days per week.



ARIZONA/NEW MEXICO

PRIMA DONNA

Effective October 5 thru December 23, 1964

Aircraft shall cross the Truth or Co[illegible]equences, N. Mex. VORTAC 201° radial, 38 NM fix (32°[illegible]107°42'W) at FL 250 or as assigned by Albuque[illegible]TC Center; descend southwestbound via the T[illegible]onsequences, N. Mex. 201° radial to 32°35'N, 1[illegible] turn right to 32°31'N, 107°57'W direct to cros[illegible], 108°16'W at 14,000' MSL; maintain 14,000'[illegible]ct to 32°54'N, 108°35'W, (Route entry point)[illegible]n 14,000' MSL direct to 34°22'N, 109°49'W;[illegible]ent to cross 34°-26'N, 109°49'W at or above 1[illegible]L; direct to cross 34°38'N, 109°50'30''W at 9[illegible]; maintain 9000' MSL direct to 35°02'30''N,[illegible] turn right at 9000' MSL to 35°09'30''N, 109°37'[illegible] direct to cross 35°-10'N, 109°18'W at 9800' M[illegible]ain 9800' MSL direct to 35°17'N, 108°38'W.

Short Look and Lay Dow[illegible] passing 35°17'N, 108°-38'W, aircraft shall m[illegible]etween 9800' MSL and 10,000' MSL through th[illegible]un corridor (5 SM either side of centerline fro[illegible]N, 108°38'W to 35°25'N, 107°52'W). After ex[illegible]route at 35°25'N, 107°52'W aircraft shall climb[illegible]o cross 35°28'N, 107°37'W at 11,000' MSL;[illegible]climbing to intercept the Crownpoint, N. M[illegible]101° radial, then climb via the Crownpoint V[illegible]radial so as to cross 35°39'N, 107°40'W at 15,0[illegible]then climb direct so as to cross 35°42'N, 107°46'[illegible]000' MSL; then at 17,000' MSL direct to the C[illegible]. VOR.

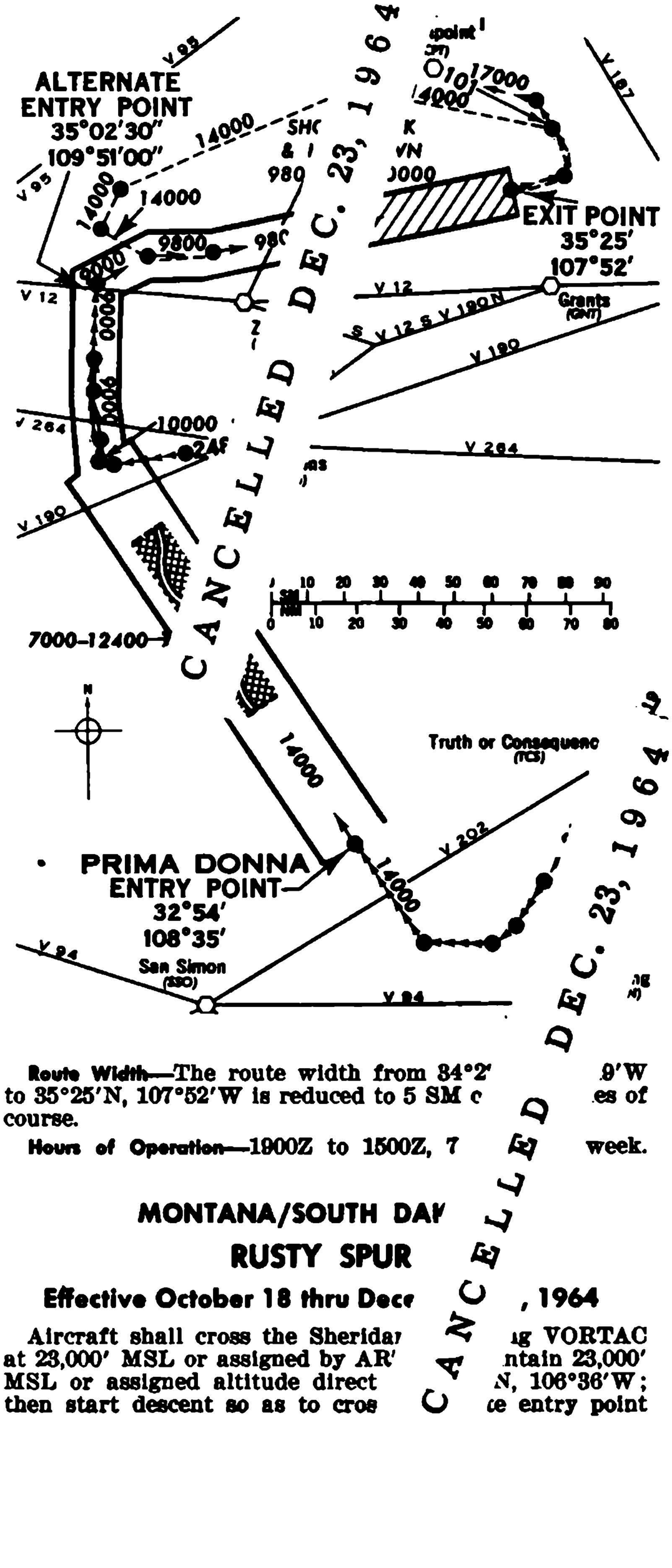
Re-Entry—Af[illegible]eting the initial short look bomb run aircraft[illegible]scheduled to execute an additional bomb run sh[illegible]exiting the route at 35°25'N, 107°-52'W, climb[illegible]0' MSL direct to 35°28'N, 107°37'W, turn left[illegible]cross 35°39'N, 107°40'W, at 14,000' MSL, ma[illegible]000' MSL direct to 35°48'N, 108°38'W, 14,000'[illegible]ct to 35°24'N, 109°45'W, turn left at 14,000' MS[illegible]35°15'N, 109°50'W, turn left at 14,000' MSL to 35°0[illegible]0'N, 109°37'W; descend direct to cross 35°10'N, 109°18'W at 9800' MSL thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 33°26'N, 109°01'W to 34°05'N, 109°34'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the

CANCELLED DEC. 23, 1964

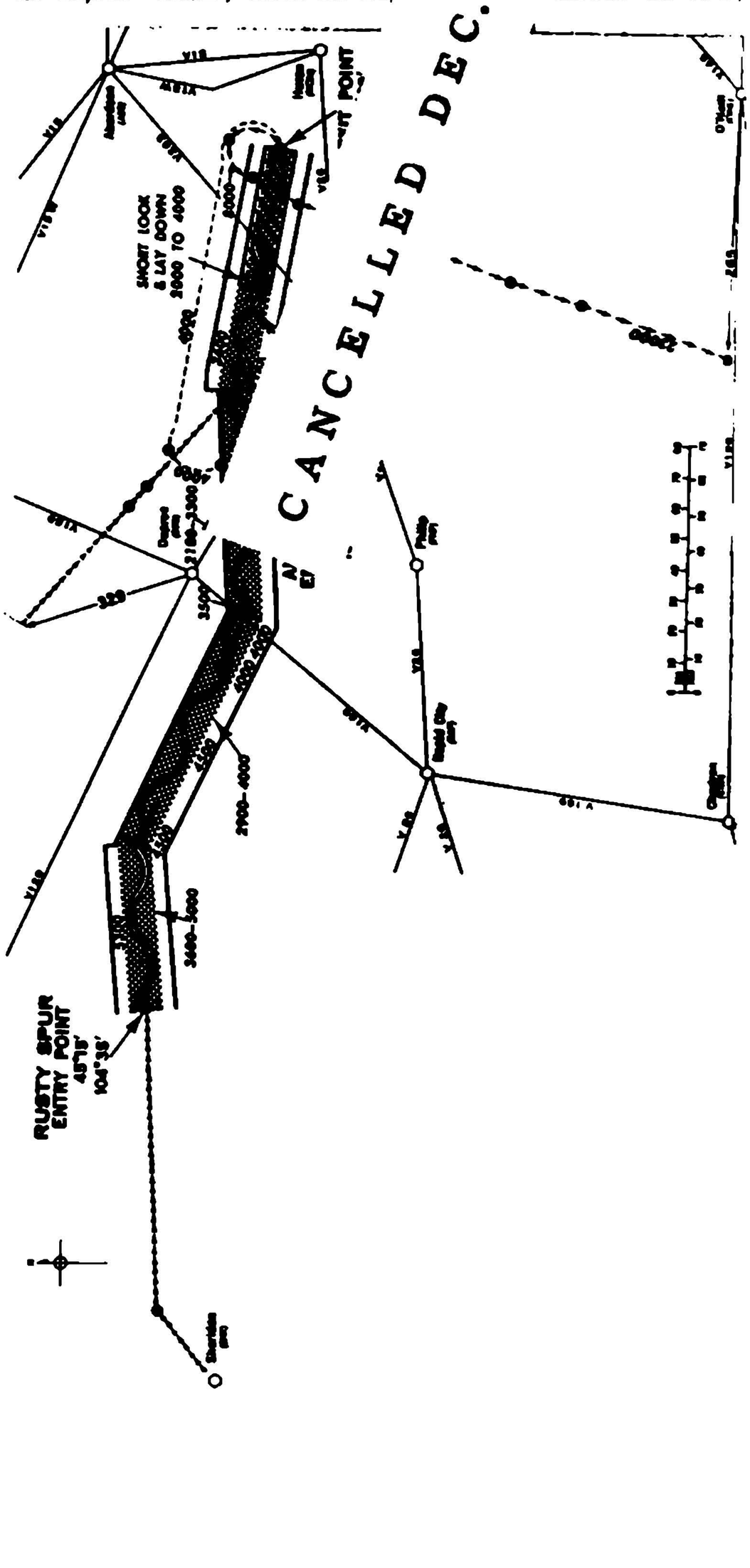
terrain. The lower VFR altitude sho ~n on the chart is the minimum that will be reached on egment during daylight hours.

Alternate Entry—Aircraft shall cross :. Johns, Arizona VORTAC at 15,000′ MSL or ;ned by Albuquerque ARTC Center, maintain l altitude via the St. Johns VORTAC 248° radia e 13 NM DME fix; then descend via the St. John radial to cross 34°21′30″N, 109°44′30″W at 10,00 ; then at 10,000′ MSL turn right to 34°38′N, 109° N; then descend direct so as to cross 34°44′N, 1 at 9000′ MSL; then at 9000′ MSL direct to 30″N, 109°51′W; thence via the published route.



at 45°15′N, 104°35′W at 5300′ MSL; then at 5300′ MSL direct to 45°20′N, 103°30′W; then descend so as to cross 45°18′N, 103°23′W at 4500′ MSL; then at 4500′ MSL direct 44°57′N, 102°20′W; then descend direct so as to cross 44°55′N, 102°14′W at 4000′ MSL; then at 4000′ MSL direct to 44°50′N, 102°00′W; then descend direct so as to cross 44°50′N, 101°55′W at 3500′ MSL; then at 3500′ MSL direct to 44°53′N, 100°30′W; then climb so as to cross 44°53′N, 100°23′W at 3600′ MSL; then at 3600′ MSL direct to the entry point of the bomb run corridor at 44°47′N, 99°49′W.

Short Look and Lay Down—After p ing 44°47′N, 99°-49′W, aircraft shall maintain betv ′ MSL and 4000′ MSL through the bomb run SM either side of centerline from 44°47′N, o 44°39′N, 98°55′W), the minimum IFR alti h the bomb run corridor is 3600′ MSL. Af the route at 44°39′N, 98°55′W, aircraft sha climbing so as to cross 44°52′N, 98°51′W SL; then at 8000′ MSL continue left turn 7′N, 99°06′W; then start climb direct so as '35′N, 99°17′W at 14,000′ MSL; then at 14, direct 44°05′N,



Route Width—The route width from 34°2′ 9′W to 35°25′N, 107°52′W is reduced to 5 SM c es of course.

Hours of Operation—1900Z to 1500Z, 7 week.

MONTANA/SOUTH DAK

RUSTY SPUR

Effective October 18 thru Dece , 1964

Aircraft shall cross the Sheridan ig VORTAC at 23,000′ MSL or assigned by ART ntain 23,000′ MSL or assigned altitude direct N, 106°36′W; then start descent so as to cros e entry point

99°33'W then start climb direct O'Neil. ska VOR-TAC 265/74 (42°35'N, 100°21'W); 43°36'N, 99°49'W at or above 20,000' MSL; 43°16'N, 100°00'W at 23,000' MSL; then ma ,000' MSL to O'Neil 265/74.

Re-Entry—After completing the nb run, aircraft that are scheduled to exec ditional bomb run shall after passing 44°39'N turn left and climb to or maintain 4000' MS 52'N, 98°51'W; then at 4000' MSL direct to 4' 0°55'W; then at 4000' MSL turn left to 44°57' 'W; then at 4000' MSL direct 44°53'N, 100°30'' e via the published route.

VFR and Contour—If the d weather conditions along the route are equa' ter than ceiling 3000', visibility 5 miles, the pil scend VFR and operate between the VFR alti' icated on the chart between the following p om 45°15'N, 104°35'W to 44°39'N, 98°55'W. aylight hours, some VFR operations will be flo above the immediate terrain. VFR operations co during the hours of darkness will not be flowr han 800' above the terrain. The lower VFR nown on the chart is the minimum altitude th e reached during daylight hours.

Alternate Entr ft shall cross the Dupree, South Dakota VOR 53 (45°55'N, 102°06'W) at 20,000' MSL or bel ssigned by ARTCC; then descend direct so ar 45°23'N, 101°16'W at 16,000' MSL; then desce o cross 45°18'N, 101°08'W at or above 14,000' M descend direct so as to cross 44°53'N, 100°30'W ' MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM on the north side of centerline from 45°20'N, 103°30'W to 44°53'N, 100°30'W.

Hours of Operation—24 hours daily, 7 days per week.

CANCELLED DEC. 23, 1964

TEXAS

SEA HORSE

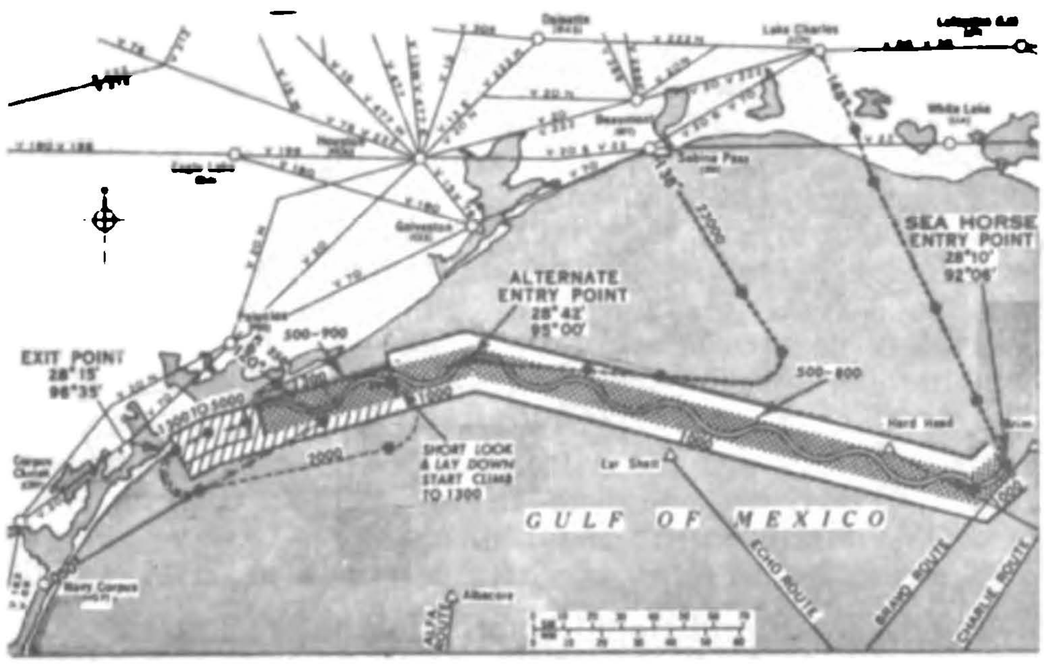
Effective July 12, 1964

Aircraft shall cross the Lake Charles, La., VOR at 23,000' MSL, or as assigned; maintain 23,000' MSL or as assigned via the Lake Charles VOR 148° radial to to 25 NM fix; start descent, cross 29°31'N, 92°47'W at 19,000' MSL, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1000' MSL (Low level entry point). Maintain 1000' MSL, turn right to 28°03'N, 92°16'W, direct to 28°42'N, 95°00'W, direct to 28°35'N, 95°25'W.

Short Look and Lay Down—After passing 28°35'N, 95°-25'W climb to 1300' MSL direct 28°23'N, 96°12'W. After passing 28°23'N, 96°12'W aircraft shall maintain between 1300' and 5000' MSL through the bomb run corridor (5 SM either side of centerline from 28°23'N, 96°12'W direct 28°20'N, 96°25'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35'W, the route exit point, turn left to intercept the Navy Corpus VOR 050 radial (reporting point); then climb via the Navy Corpus VOR 050 radial to intercept the Palacios, Texas VOR 120 radial at 18,000' MSL or above. Climb via the Palacois VOR 120 radial so as to reach FL 250 at a point 18 NM southeast of the Palacios VOR, cross the Palacios VOR at FL 250.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°-35'W turn left to intercept the Navy Corpus VOR 050° radial at 2000' MSL, maintain 2000' MSL direct 28°-22'N, 95°26'W; turn left descending so as to cross 28°-35'N, 95°25'W at 1300' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 28°10'N, 92°06'W to 28°24'N, 96°09'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached during daylight hours.



Alternate Entry—Aircraft shall cross the Sabine Pass VOR at 23,000' MSL or as assigned, then via Sabine Pass VOR 138° radial maintaining 23,000' MSL until the 47 NM fix (29°02'N, 93°33'W). Start descent direct to cross 28°44'N, 93°19'W at 16,000' MSL turn right, descend to cross 28°37'N, 93°58'W at 4000' MSL; descend direct to cross 28°39'N, 94°21'W at 1000' MSL direct 28°42'N, 95°00'W thence via published route.

Route Width—The route width is reduced to 5 SM north of the centerline from 28°35'N, 95°25'W to 28°15'N, 96°35'W.

Hours of Operation—24 hours daily, seven days per week.

NEW YORK/VERMONT

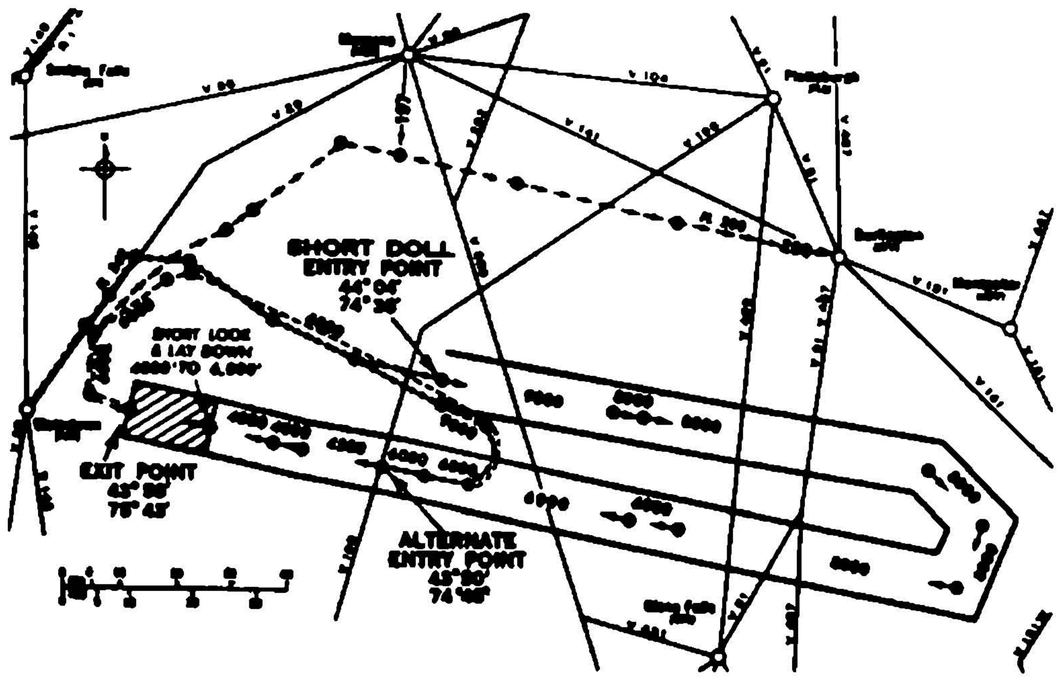
SHORT DOLL

Effective September 6, 1964

Aircraft shall cross 43°57'N, 76°04'W (Watertown, New York VOR) at FL 290; descend, cross 44°11'N, 75°52'W at FL 250 or above ; cross 44°16'N, 75°47'W at FL 240; direct 44°22'N, 75°42'W; cross 44°22'N, 75°-30'W at 19,000'; cross 44°13'N, 75°12'W at 14,000'; cross 44°07'N, 74°54'W below 12,000'; cross 44°04'N, 74°35'W, the entry point to the low level route, at 9000'; maintain 9000' direct 43°59'N, 73°58'W; descend, cross 43°58'N, 73°52'W at 8000'; maintain 8000' direct 43°-50'N, 72°52'W; direct 43°41'N, 72°40'W; direct 43°31'N, 72°46'W; direct 43°40'N, 73°45'W; descend, cross 43°-42'N, 73°56'W at 6000' MSL; direct 43°50'N, 74°48'W; descend, cross 43°52'N, 75°05'W at 4500' MSL; descend, cross 43°53'N, 75°11'W at 4000' MSL, maintain 4000' MSL direct to the entry point of the bomb run corridor at 43°55'N, 75°25'W.

Short Look and Lay Down—After passing 43°55'N, 75°-25'W aircraft shall operate through the bomb run corridor between 4000' and 6000' MSL (the bomb run corridor is 5 SM either side of centerline from 43°55'N,

75°25′W to 43°58′N, 75°43′W). After exiting the low level route at 43°58′N, 75°43′W aircraft shall cross 44°-00′N, 75°51′W at 6000′ MSL, maintain 6000′ MSL direct 44°10′N, 75°51′W; direct 44°27′N, 75°22′W; climb, cross 44°30′N, 75°17′W at 13,000′ or below; cross 44°41′N, 74°58′W at 15.000′ or above (Burlington, Vt. VOR 298 radial); direct (via Burlington VOR 298 radial) cross 44°39′N, 74°45′W at 19,000′ (Massena, N.Y. VOR 197 radial); continue climb, cross 44°35′N, 74°19′W at 23,000′; cross 44°29′N, 73°45′W at FL 280, maintain FL 280, direct 44°24′N, 73°11′W (Burlington, Vt. VOR).



Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°58′N, 75°43′W; cross 44°00′N, 75°51′W at 6000′; maintain 6000′ direct 44°10′N, 75°51′W; direct 44°19′N, 75°35′W; direct 44°20′N, 75°30′W; direct 43°-57′N, 74°26′W; right turn to 43°47′N, 74°30′W; thence via the "Short Doll" route.

Alternate Entry—Aircraft shall cross 43°57′N, 76°04′W (Watertown, N.Y. VOR) at FL 290; descend, cross 44°-11′N, 75°52′W at FL 250 or above; cross 44°16′N, 75°-47′W at FL 240, direct 44°22′N, 75°42′W; cross 44°22′N, 75°30′W at 19,000′; cross 44°13′N, 75°12′W at 14,000′; cross 44°07′N, 74°54′W below 12,000′; cross 44°00N, 74°35′W at 9000′; maintain 9000°, direct 43°57′N, 74°-26′W; right turn to 43°47′N, 74°30′W; descend, cross 43°48′N, 74°39′W at 7000′ or below; cross 43°50′N, 74°-48′W at 6000′; thence via the "Short Doll" route.

Route Width—The entire low level route is reduced to 5 SM either side of centerline.

Hours of Operation—0000Z to 2359Z, Monday thru Sunday.

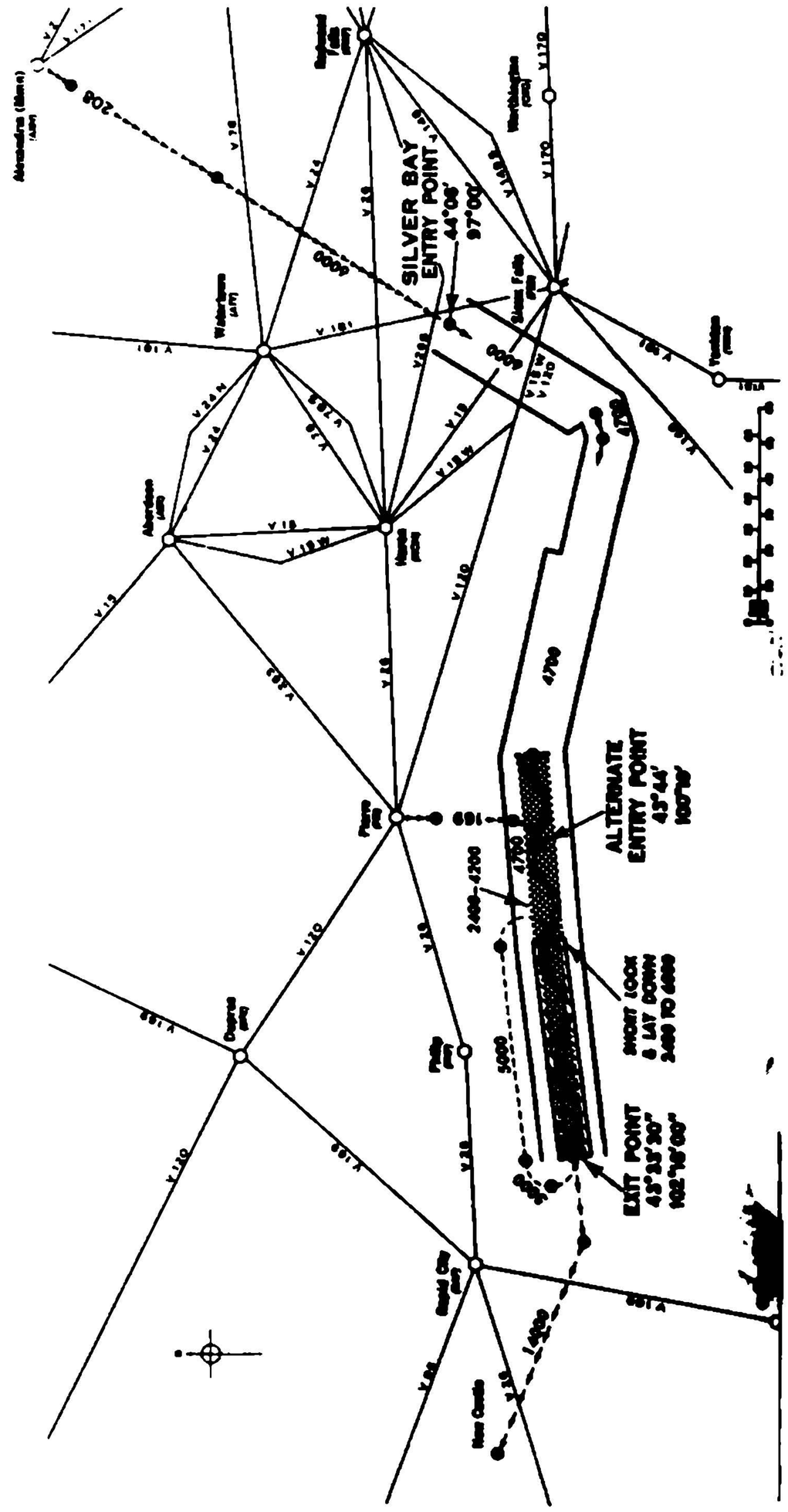
SOUTH DAKOTA

SILVER BAY

Effective October 18, 1964

Aircraft shall cross the Alexandria, Minn. VOR at 20,000′ MSL or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining 20,000′ MSL or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10′N, 96°00′W at 6000′ MSL; then at 6000′ MSL direct 44°08′N, 97°00′W (low level entry point); then at 6000′ MSL direct 43°29′N, 97°35′W; then turn right descending so as to cross 43°27′N, 97°45′W at 4700′ MSL; then at 4700′ MSL direct 43°47′N, 99°45′W; then at 4700′ MSL direct to 43°42′N, 100°56′W.

Short Look and Lay Down—After passing 43°42′N, 100°-56′W, aircraft shall maintain between 2400′ MSL and 6000′ MSL through the bomb run corridor (5 SM either side of centerline from 43°42′N, 100°56′W to 43°33′-30″N, 102°18′W). The minimum IFR altitude through the corridor is 4700′ MSL. After exiting the route at 43°33′30″N, 102°18′W aircraft shall climb so as to cross 43°30′N, 102°50′W at 14,000′ MSL; then at 14,000′ MSL direct to 43°51′N, 104°13′W. (New Castle, Wyoming)



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33′30″N, 102°18′W turn right and climb or descend so as to cross 43°40′N, 102°29′W, at 5000′ MSL; then at 5000′ MSL continue turn to 43°47′N, 102°20′W; then at 5000′ MSL direct 43°55′N, 100°58′W; then turn right descending so as to intercept the Silver Bay route at 43°42′N, 100°56′W at 4700′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 43°47′N, 99°45′W to 43°33′30″N, 102°18′W. During daylight hours some VFR

operations will be flown 500' above the immediate terrain. VFR operation conducted during the hours of darkness will not be flonw lower than 800' above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000' MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 169° radial maintaining 15,000' MSL or assigned altitude until 10 NM south (44°13'N, 100°10'W); then descend direct to 43°52'N, 100°10'W; then turn right descending so as to cross 43°44'N, 100°19'W at 4700' MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM north of centerline between 43°29'N, 97°35'W to 43°35'N, 98°-30'W.

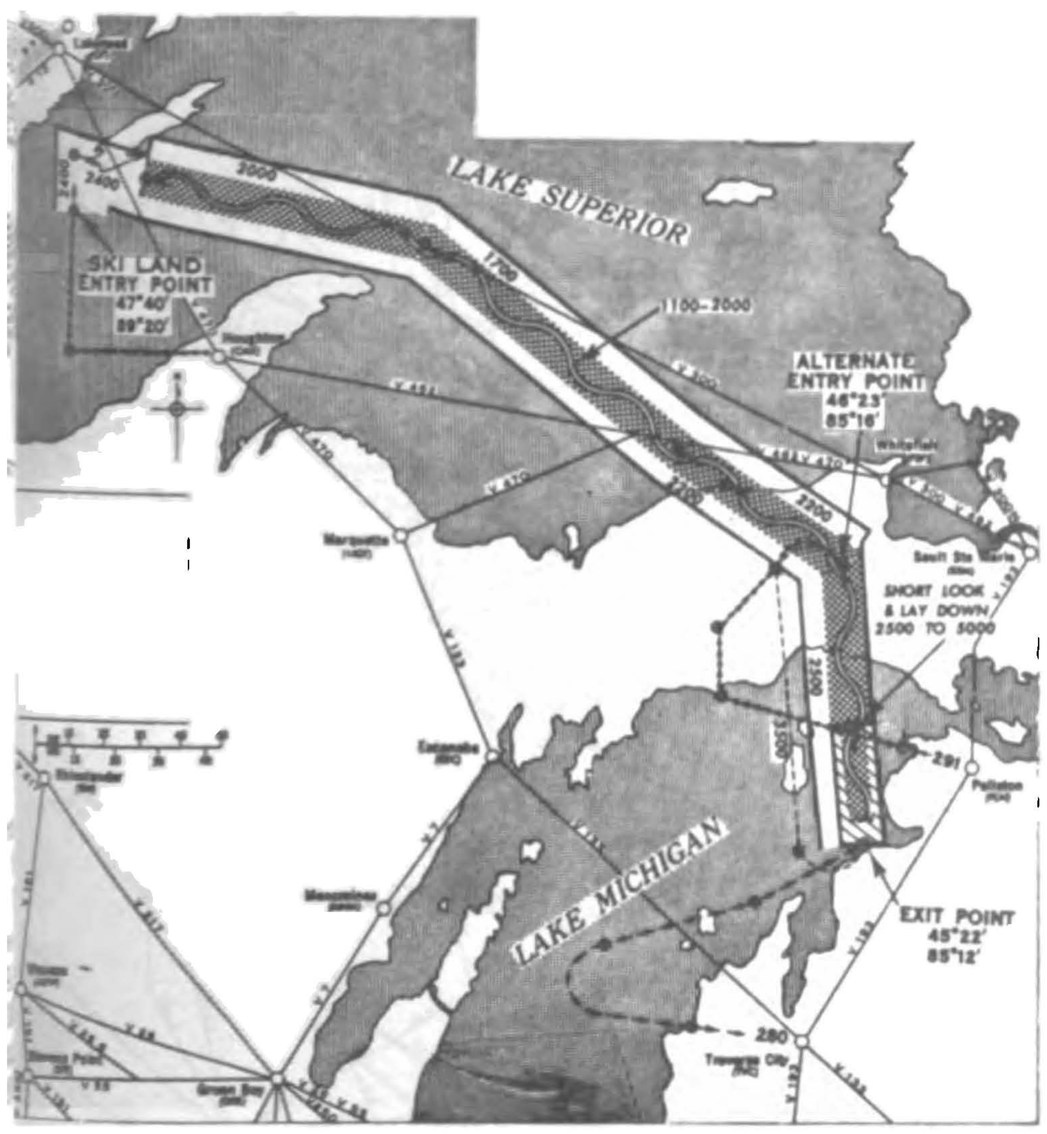
Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND

Effective September 6, 1964

Aircraft shall cross the Houghton, Michigan VOR at 20,000' MSL or as assigned by ARTCC; then descend direct so as to cross 47°10'N, 89°20'W at 11,000' MSL; then turn right continuing descent so as to cross the route entry point at 47°40'N, 89°20'W at 2400' MSL, then at 2400' MSL direct 47°52''N, 89°20'W, then at 2400' MSL direct 47°48'N, 88°55'W; then descend to 2000' MSL direct 47°35'N, 87°25'W; then descend to 1700' MSL direct 46°49'N, 86°06'W; then climb so as to cross 46°42'N, 85°52'W at 2200'MSL, then at 2200' MSL direct 46°23'N, 85°16'W; then climb to 2500' MSL direct 45°-18'N, 85°15'W.



Short Look and Lay Down—After passing 45°48'N, 85°15'W aircraft shall maintain between 2500' MSL and 5000' MSL through the bomb run corridor (5 SM either side of centerline from 45°48'N, 85°15'W to 45°22'N, 85°-12'W. The minimum IFR altitude through the bomb run corridor is 2500' MSL); after passing 45°22'N, 85°12'W then turn right climbing so as to cross 45°10'N, 85°47'W at 10,000' MSL; then climb direct so as to cross 45°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at 21,000' MSL. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W, turn right climbing so as to cross 45°21'N, 85°32'W at 3500' MSL, then at 3500' MSL direct to 46°23'N, 85°37'W; then turn right descending so as to cross 46°23'N, 85°-16'W at 2500' MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48'N, 88°55'W to 45°27'N, 85°13'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000' MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000' MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°09'30''N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 5 statute miles west and north of centerline from 47°40'N, 89°-20'W to 47°48'N, 88°55'W, and east of centerline from 46°23'N, 85°16'W to 45°22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

OREGON

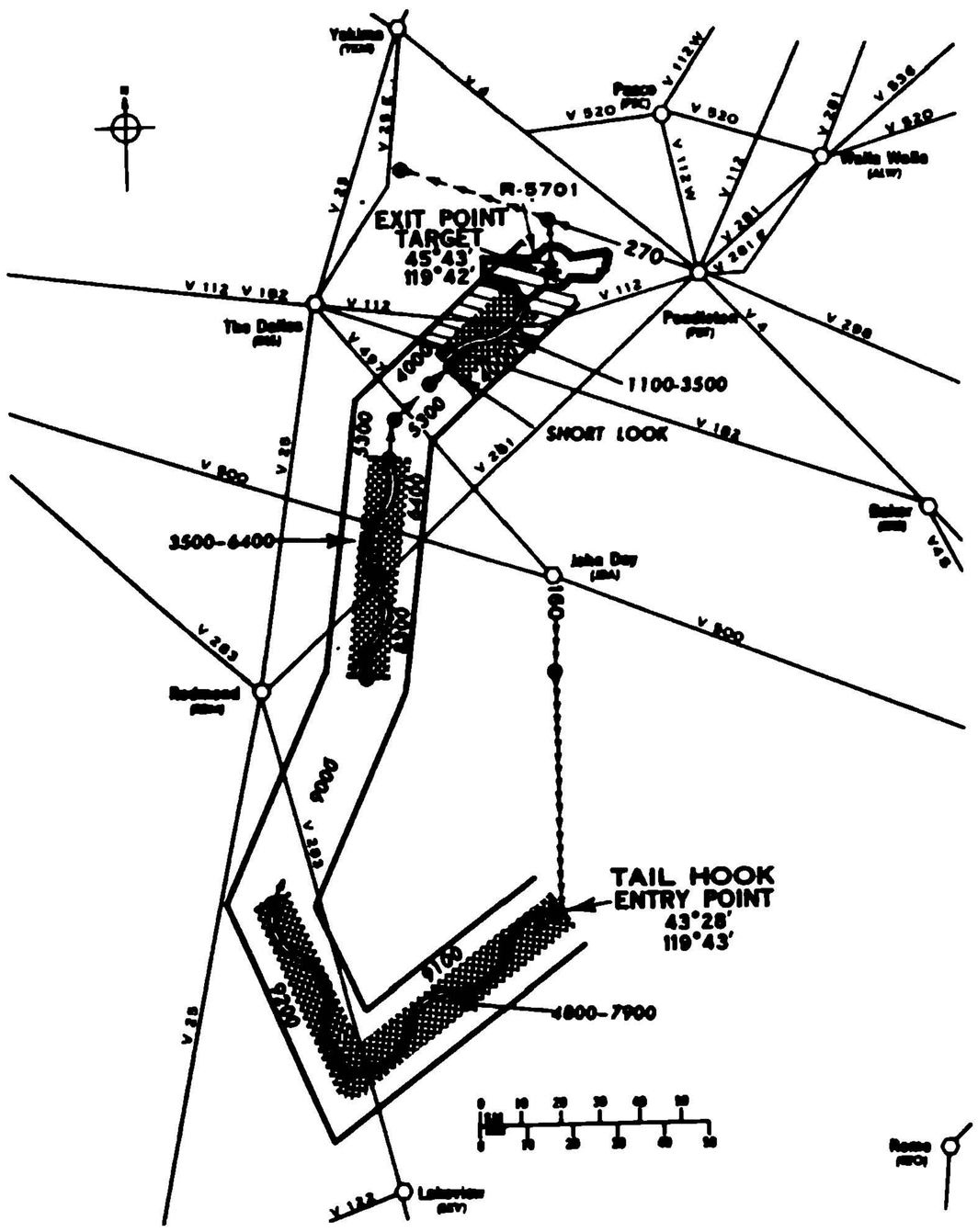
TAIL HOOK

Effective February 12, 1963

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000' MSL, or as assigned by Seattle ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19'N, 119°43'W); then descend to 9100' MSL to the entry point of the low level route at 43°28'N, 119°43'W; then 9100' MSL direct to 42°54'N, 120°45'W; then climb to 9200' MSL direct to 43°31'N, 121°08'W; then descend to 9000' MSL direct to 44°18'N, 120°39'W; then descend to 8300' MSL direct to 44°40'N, 120°36'W; then descend to 6400' MSL direct to 45°05'N, 120°31'W; then descend to 5300' MSL direct to 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 120°19'W; then descend so as to cross 45°23'N, 120°13'W at 4000' MSL.

Short Look—After passing 45°23'N, 120°13'W, aircraft shall maintain 4000' MSL until within Restricted Area R-5701; after crossing RBS target located at 45°43'N, 119°42'W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000' MSL; then climb westbound

on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000′ MSL.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28′N, 119°43′W to 43°31′N, 121°08′W, from 44°18′N, 120°39′W to 45°05′N, 120°31′W, and from 45°23′N, 120°13′W to restricted area R–5701. During daylight hours, VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800′ above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE

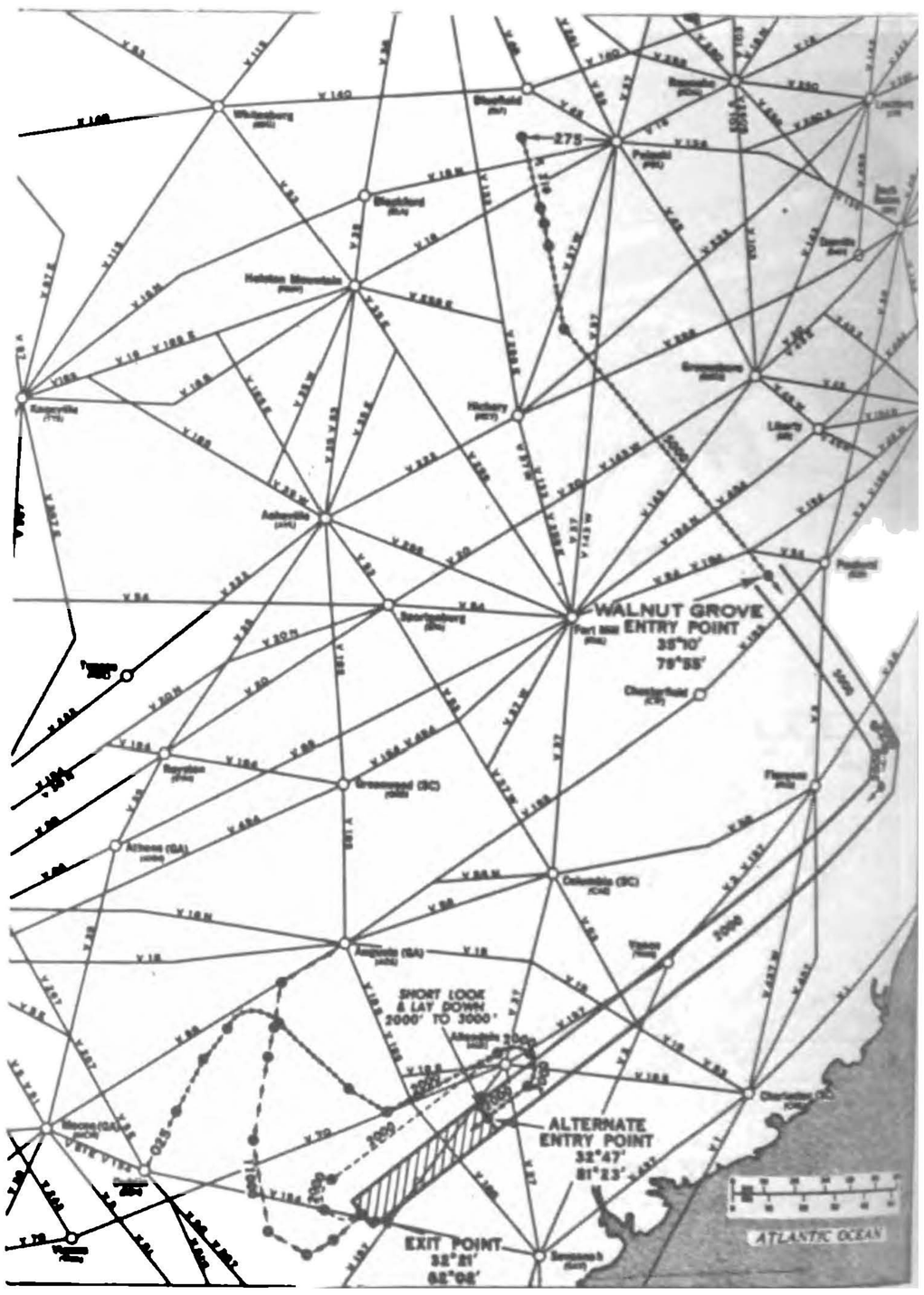
Effective January 4, 1965

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06′N, 81°14′W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47′N, 81°08′W at FL 210; then descend direct so as to cross 36°43′N, 81°07′W at FL 180 or above; then descend direct so as to cross 36°37′N, 81°06′W at or below 14,000′ MSL; then descend direct so as to cross 36°15′N, 81°00′W at 5000′ MSL; then at 5000′ MSL direct to 35°10′N, 79°55′W (low level entry point); then at 5000′ MSL direct to 34°29′N, 79°16′W; then descend direct so as to cross 34°23′N, 79°11′W at 2000′ MSL; then at 2000′ MSL turn right to 34°13′N, 79°13′W; then at 2000′ MSL direct to 32°47′N, 81°23′W.

Short Look and Lay Down—After passing 32°47′N, 81°23′W aircraft shall maintain between 2000′ MSL and 3000′ MSL through the bomb run corridor (5 SM either side of center line from 32°47′N, 81°23′W to 32°21′N, 82°02′W). After exiting the route at 32°21′N, 82°02′W, aircraft shall climb to or maintain 3000′ MSL to 32°14′N, 82°10′W; then climb direct so as to cross 32°10′N, 82°18′W at 6000′ MSL; then climb direct so as to cross 32°16′N, 82°30′W at 11,000′ MSL; maintain 11,000′ direct 32°40′N, 82°35′W; then climb direct so as to cross 33°02′N, 82°31′W at FL 180; cross 33°10′N, 82°29′W at FL 200; cross 33°22′N, 82°27′W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Georgia VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21′N, 82°02′W, turn right and descend or maintain 2000′ MSL to 32°22′N, 82°13′W; then at 2000′ MSL continue turn to 32°30′N, 82°11′W; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′N, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to 32°47′N 81°23′W; thence via the published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31′N, 83°08′W) at FL 260 or as assigned then descend direct via the Dublin VOR 025° radial so as to cross 32°47′N, 82°59′W at FL 230; cross 33°01′N 82°51′W at 17,000′ MSL; cross 33°09′N, 82°44′W at 15,000′ MSL; turn right to cross 33°11′N, 82°28′W at 13,000′ MSL; cross 32°54′N, 82°06′W at 3000′ MSL; then descend direct so as to cross 32°48′N, 81°54′W at 2000′ MSL; then at 2000′ MSL direct to 33°04′N, 81°20′W



then at 2000' MSL turn right to 33°04', 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.

Route Width—The entire route width is reduced to 5 SM either side of centerline.

Hours of Operation—Primary entry 1900Z to 2300Z and from 0100Z to 1400Z, 7 days per week; alternate entry 24 hours per day, 7 days per week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR

Effective November 1, 1964

Aircraft shall cross 34°22'N, 105°40'30"W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ATC, then descend direct to cross 34°33'N, 105°33'W at or below 23,000' MSL; then descend direct to cross 34°40'N, 105°28'W at 22,000' MSL; then descend direct to cross 34°45'N, 105°12'W at or below 18,000' MSL; then descend direct to cross 34°53'N, 104°48'W at 10,000' MSL; then descend direct to cross the route entry point at 34°47'N, 104°29'W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104°08W, then 7000' MSL direct to 36°37'N, 102°50'W; then descend direct to cross 36°49'N, 102°35'W at 6000' MSL, maintain 6000' MSL direct to 37°03'N, 102°17'W, then 6000' MSL direct to 37°52'N, 103°10'W.

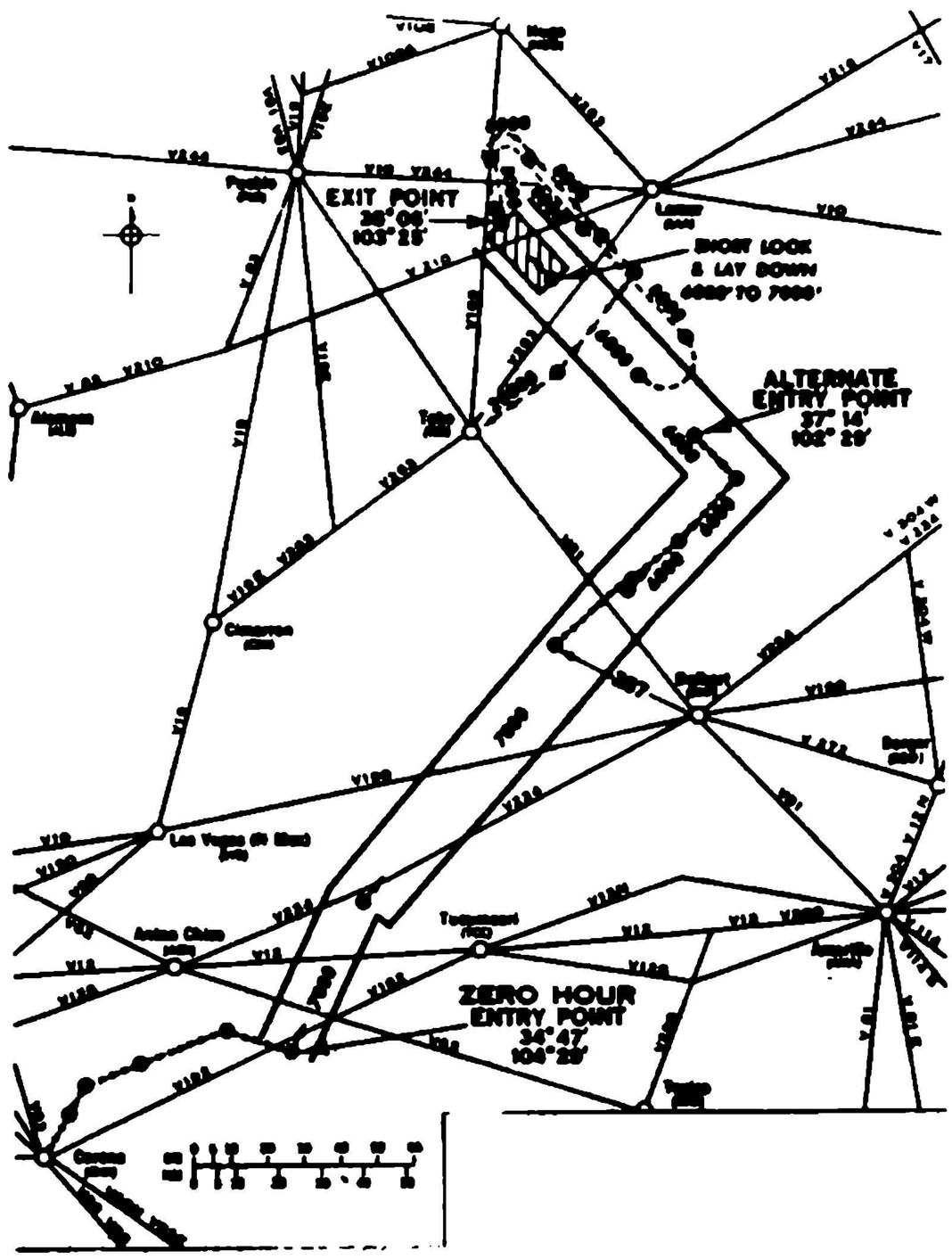
Short Look and Lay Down—After passing 37°52'N, 103°-10'W aircraft shall maintain between 6000' and 7000' MSL thru the bomb run corridor (5 SM either side of centerline from 37°52'N, 103°10'W to 38°06'N, 103°25'W). After exiting the route at 38°06'N, 103°25'W climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL direct to 38°22'N, 103°27'W, then 8000' MSL direct to 38°21'N, 103°17'W; then 8000' MSL direct 38°02'N, 102°55'W; then direct to cross 37°53'N, 102°45'W at 9000' MSL; then climb direct to cross 37°30'N, 103°08'W at FL 200; then maintain FL 200 direct to Tobe VOR-TAC.

Re-Entry—After completing the initial Short Look bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06'N, 103°-25'W, climb direct to cross 38°09'N, 103°26'W at 8000' MSL, maintain 8000' MSL direct to 38°22'N, 103°27'W, then 8000 MSL direct to 38°21'N, 103°17'W, then 8000' MSL direct to 38°04'N, 103°00'W, then 8000' MSL direct to 37°38'N, 102°31'W; then turn right descending to cross 37°29'N, 102°45'W at 6000' MSL, thence via the published route.

Alternate Entry—Aircraft shall cross 36°23'N, 103°13'W (Dalhart VORTAC 287/37) (reporting point) at 15,000' MSL, maintain 15,000' MSL direct to 36°39'N, 102°49'-30"W; then descend direct to cross 36°49'N, 102°35'W at 11,000' MSL, maintain 11,000' MSL direct to 37°03'N, 102°17'W; then descend direct to cross 37°14'N, 102°-29'W at 6000' MSL, thence via the published route.

Route Width—The route width from 34°47'N, 104°29'W to 35°24'N, 104°08'W is reduced to 5 SM on the east side of centerline.

Hours of Operation—24 hours daily, 7 days per week.



STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Jan. 9, 1965:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Albany, N.Y.—Albany Co	No. 1, Amdt. 6	Revised
Augusta, Ga.—Bush Fld	No. 2, Amdt. 1	Revised
Augusta, Ga.—Bush Fld	No. 3, Amdt. 1, efctv 23 May 64	Cancelled
Independence, Kan.—Independence Mun	No. 1, Orig.	Revised
Lawrence, Mass—Lawrence Mun	No. 1, Amdt. 6	Revised
Memphis, Tenn.—Memphis Metropolitan Mun	No. 2, Amdt. 3	Revised
Orlando, Fla.—Herndon Arpt	No. 1, Amdt. 1	Revised
Rutland, Vt.—Rutland Mun	No. 1, Amdt. 3	Revised
VHF OMNIRANGE		
Augusta, Ga.—Bush Fld	No. 1, Amdt. 6	Revised
Duncan, Okla.—Halliburton Fld	No. 1, Amdt. 3	Revised
Flippin, Ark.—Flippin Mun	No. 1, Amdt. 1	Revised
Glens Falls, N.Y.—Warren Co	No. 1, Amdt. 3	Revised
Honolulu, Hawaii (Wahiawa)—U.S. Army (Tenant Wheeler AFB	No. 1, Amdt. 1	Revised
TERMINAL VOR		
Albany, N.Y.—Albany Co	No. TerVOR-1, Amdt. 7	Revised
Albany, N.Y.—Albany Co	No. TerVOR-19, Amdt. 7	Revised
Augusta, Me.—Augusta State	TerVOR-17, Amdt. 4	Revised
Columbia, Mo.—Columbia Mun	TerVOR-17, Amdt. 3	Revised
Columbia, Mo.—Columbia Mun	No. TerVOR-35, Amdt. 1	Revised
Newport, Oregon—Newport Mun	VOR-34, Amdt. 2	Revised
Pahokee, Fla.—Palm Beach Co Glades	No. TerVOR-17, Amdt. 2	Revised
Philadelphia, Pa.—North Philadelphia Arpt	No. TerVOR-24, Amdt. 6	Revised
VOR/DME		
Albany, N.Y.—Albany Co	No. 1, Amdt. 3	Revised
Albany, N.Y.—Albany Co	No. 2, Amdt. 4	Revised
Albany, N.Y.—Albany Co	No. 3, Amdt. 3	Revised
Albany, N.Y.—Albany Co	No. 4, Amdt. 3	Revised
Ocala, Fla.—Ocala Mun (Jim Taylor Fld)	No. VOR/DME #1, Amdt. 2	Revised
INSTRUMENT LANDING SYSTEM		
Albany, N.Y.—Albany Co	ILS-1, Amdt. 6, (Back Course)	Revised
Albany, N.Y.—Albany Co	ILS-19, Amdt. 7	Revised
Duluth, Minn.—Duluth Intl	ILS-9, Amdt. 1	Revised
Memphis, Tenn.—Memphis Metropolitan Arpt	ILS-35, Amdt. 4	Revised
Minneapolis, Minn.—Minneapolis-St. Paul Int'l Arpt	ILS-4, Amdt. 7	Revised
Orlando, Fla.—Herndon Arpt	ILS-7, Amdt. 3	Revised
RADAR		
Memphis, Tenn.—Memphis Metropolitan Arpt	No. 1, Amdt. 11	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Jan. 16, 1965:

Location	Procedure	Action
LOW FREQUENCY RANGE		
ılkana, Alaska—Gulkana Arpt	No. 1, Amdt. 7	Revised
AUTOMATIC DIRECTION FINDING		
buquerque, N. Mex.—Albuquerque Sunport/Kirtland AFB	No. 2, Amdt. 2	Revised
stin, Tex.—Robert Mueller Mun Arpt	No. 1, Amdt. 20	Revised
uston, Tex.—Houston Int'l Arpt	No. 4, Amdt. 1	Revised
bile, Ala.—Bates Fld	No. 1, Amdt. 15	Revised
ux City, Iowa—Sioux City Mun Arpt	No. 1, Amdt. 9	Revised
ux City, Iowa—Sioux City Mun Arpt	No. 2, Amdt. 3	Revised
VHF OMNIRANGE		
burn, Ala.—Auburn-Opelika Arpt	No. 1, Amdt. 1	Revised
stin, Tex.—Robert Mueller Mun Arpt	No. 1, Amdt. 14	Revised
ntiac, Mich.—Pontiac Mun Arpt	No. 1, Amdt. 7	Revised
ux City, Iowa—Sioux City Mun Arpt	No. 1, Amdt. 9	Revised
mple, Tex.—Draughon-Miller Mun Arpt	No. 1, Amdt. 6	Revised
coa, Ga.—Toccoa Arpt	No. 1, Orig.	Established
scaloosa, Ala.—Van De Graaff Arpt	No. 1, Amdt. 9	Revised
TERMINAL VOR		
ston, Mass.—Gen. Edward Lawrence Logan Int'l Arpt	No. TerVOR-33, Amdt. 6	Revised
Rucker, Ala.—Cairns AAF	No. TerVOR-6, Amdt. 5	Revised
Rucker, Ala.—Cairns AAF	No. TerVOR-24, Amdt. 3	Revised
VOR/DME		
stview, Fla.—Bob Sikes Arpt	No. 1, Orig.	Established
uston, Tex.—Houston Int'l Arpt	No. 1, Amdt. 2	Revised
uston, Tex.—Houston Int'l Arpt	No. 2, Amdt. 3	Revised
uston, Tex.—Houston Int'l Arpt	No. 3, Amdt. 3	Revised
ayette, Ind.—Halsmer Arpt	No. 1, Amdt. 1	Revised
ux City, Iowa—Sioux City Mun Arpt	No. 2, Amdt. 2	Revised
INSTRUMENT LANDING SYSTEM		
Rucker, Ala.—Cairns AAF	No. ILS-6, Amdt. 2	Revised
uston, Tex.—Houston Int'l Arpt	No. ILS-21, Amdt. 10	Revised
bile, Ala.—Bates Fld	No. ILS-14, Amdt. 14	Revised
w Orleans, La.—New Orleans Int'l Arpt	ILS-10, Amdt. 15	Revised
ux City, Iowa—Sioux City Mun Arpt	No. ILS-13, Amdt. 3	Revised
ux City, Iowa—Sioux City Mun Arpt	ILS-31, Amdt. 9	Revised
RADAR		
Rucker, Ala.—Cairns AAF	No. 1, Amdt. 5	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelle effective Jan. 23, 1965:

Location	Procedure	Action
LOW FREQUENCY RANGE		
Gage, Okla.—Municipal	No. 1, Amdt. 2, efctv 31 Aug 63	Cancelled
Palmdale, Calif.—Air Force Plant #42	No. 1, Amdt. 2	Revised
Roswell, N. Mex.—Roswell Mun	No. 1, Amdt. 8, efctv 8 Feb 64	Cancelled
AUTOMATIC DIRECTION FINDING		
Cumberland, Md.—Cumberland Mun	No. 1, Orig.	Establishe
Longview, Tex.—Gregg County Mun	No. 1, Amdt. 3	Revised
Montgomery, Ala.—Dannelly Fld	No.1, Amdt. 4	Revised
Omaha, Neb.—Eppley Airfield	No. 1, Amdt. 14	Revised
Pittsburgh, Pa.—Allegheny Co Arpt	No. 1, Amdt. 12	Revised
Pittsburgh, Pa.—Allegheny Co Arpt	No. 3, Amdt. 1	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 1, Amdt. 5	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 2, Amdt. 7	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 4, Amdt. 2	Revised
Raleigh, N.C.—Raleigh-Durham Arpt	No. 1, Amdt. 9	Revised
Raleigh, N.C.—Raleigh-Durham Arpt	No. 2, Amdt. 1	Revised
VHF OMNIRANGE		
Longview, Tex.—Gregg Co. Mun Arpt	No. 1, Amdt. 7	Revised
Marshall, Tex.—Harrison Co. Arpt	No. 1, Amdt. 1, efctv 9 Nov 63	Cancelled
Montgomery, Ala.—Dannelly Fld	No. 1, Amdt. 10	Revised
Montgomery, N.Y.—Orange County Arpt	No. 1, Orig.	Establishe
Omaha, Neb.—Eppley Airfield	No. 1, Orig.	Establishe
Pittsburgh, Pa.—Allegheny Co	No. 1, Amdt. 4	Revised
TERMINAL VOR		
Palmdale, Calif.—Palmdale AF Plant #42	No. VOR–22, Amdt. 4	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. TerVOR–32, Amdt. 1	Revised
Raleigh, N.C.—Raleigh-Durham Arpt	No. TerVOR–5, Amdt. 3	Revised
Raleigh, N.C.—Raleigh-Durham Arpt	No. TerVOR–23, Amdt. 3	Revised
Shreveport, La.—Downtown Arpt	No. TerVOR–14, Amdt. 4	Revised
VOR/DME		
Omaha, Nebr.—Eppley Airfield	VOR/DME #1, Amdt. 1	Revised
Palmdale, Calif.—Palmdale AF Plant #42	No. VOR/DME #1, Amdt. 1	Revised
INSTRUMENT LANDING SYSTEM		
Longview, Tex.—Greeg Co. Mun Arpt	ILS–13, Amdt. 5	Revised
Longview, Tex.—Greeg Co. Mun Arpt	ILS–31, (Back Course), efctv 19 Dec 64	Cancelled
Los Angeles, Calif.—Los Angeles Int'l Arpt	ILS–25L, Amdt. 27	Revised
Los Angeles, Calif.—Los Angeles Int'l Arpt	ILS–25R, Amdt. 4	Revised
Miami, Fla.—Miami Int'l Arpt	ILS–27, Amdt. 2	Revised
Nashville, Tenn.—Nashville Metropolitan Arpt	ILS–20R, Amdt. 2	Revised
Omaha, Neb.—Eppley Airfield	ILS–14, Amdt. 14	Revised
Omaha, Neb.—Eppley Airfield	ILS–32, Amdt. 6, (Back Course)	Revised
Pittsburgh, Pa.—Allegheny Co Arpt	ILS–27, Amdt. 13	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–10R, (Back Course) Amdt. 5	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–28L, Amdt. 9	Revised
Raleigh, N.C.—Raleigh-Durham Arpt	ILS–23, Amdt. 9, (Back Course)	Revised

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ALABAMA			
50	Birmingham		12-18-64 (2) 12-18-64 (3)		
		ALASKA			
1194	Yakataga				12-26-64
		ARIZONA			
546	Prescott	12-12-64DME (1)*			
		CALIFORNIA			
5136	Fullerton	12-4-64 (1) 12-4-64 DME (1)			
965	Ontario (Intnl)		12-18-64 (1)	12-18-64R25	
858	Paso Robles (County)	12-4-64Rad-130			
5218	Pomona (Brackett Fld)	12-11-64Rad-235			
769	Riverside (Mun.)	12-11-64R9			
363	Salinas	12-26-64R13 12-26-64DME (1) 12-26-64DME (2)			
375	San Francisco (Intnl)	12-11-64R19L 12-11-64R28L&R 12-4-64R10L&R	12-11-64 (1)	12-11-64R28R&L 12-4-64R10L&R(BC)	
407	Stockton (Metropolitan)	12-12-64 (1)	12-12-64 (1)	12-12-64R29R	
		COLORADO			
114	Denver (Stapleton Intnl)	12-26-64 (1)			
		CONNECTICUT			
190	East Hartford (Rentschler Field)	12-18-64 (1)	12-18-64 (1)		
5049	Groton (Trumbull)	12-4-64 Rad-061 12-4-64 Rad-210 12-4-64 Rad-140			
		FLORIDA			
318	Pensacola		12-26-64 (1)	12-26-64R16	
640	Sarasota (Bradenton)	12-4-64R13			
5048	Tallahassee (Mun.)		12-12-64 (1)	12-12-64R36 12-12-64R18(BC)	
		GEORGIA			
26	Atlanta	12-18-64 (1) 12-18-64 (2)	12-18-64 (1) 12-18-64 (2) 12-18-64 (3) 12-18-64 (4)*	12-18-64R9L 12-18-64R33 12-18-64R9R*	
745 5170	Atlanta (Fulton Co.)	12-11-64Rad-275	12-11-64 (1)*		
892	Fort Stewart (Liberty AAF)		12-12-64 (1)		
	Valdosta	12-26-64 (1)			
		INDIANA			
203	Indianapolis (Weir Cook)	12-26-64 (1)		12-26-64R13(BC) 12-26-64R22(BC)	

* NEW CHART

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		KANSAS			
962	Emporia	12-4-64 (1)			
942	Salina	12-4-64 (1)			
		KENTUCKY			
5191	Hopkinsville (Christian Co)	12-11-64 (1)			
		LOUISIANA			
270	Monroe (Selman)	12-12-64 (1) 12-26-64 DME (1)* 12-26-64 DME (2)*	12-12-64 (1)	12-12-64R4	
		MICHIGAN			
118	Detroit (City)	12-19-64 (1) 12-19-64 (2)	12-19-64 (1)		12-19-64 (1)
119	Detroit (Metro. Wayne Co.)		12-4-64 (1) 12-18-64 (1)	12-4-64R3L&R 12-18-64R3L&R	
467	Detroit (Willow Run)		12-18-64 (1)	12-18-64R5R&L	
861	Jackson (Reynolds)	12-4-64R5 12-4-64R23			
5257	Manistee (Co.-Blacker)		12-10-64 (1)*		
		MINNESOTA			
5258	Grand Rapids	12-10-64R34*			
		MISSISSIPPI			
576	Gulfport	12-26-64R13			
		MONTANA			
59	Bozeman (Gallatin Fld)	12-19-64Rad-259	12-19-64 (1)		
121	Dillon	12-19-64Rad-007	12-19-64 (1)		
231	Lewistown	12-19-64 (1)			
		NEVADA			
5163	Ely (Yelland Fld)	12-11-64Rad-286			
346	Reno		12-12-64 (2)*		
		NEW JERSEY			
5060	Red Bank	12-4-64 (1)			
		NEW MEXICO			
71	Carlsbad	12-12-64 (1)			
		NEW YORK			
905	Massena (Richards Fld)	12-11-64 (1)			
382	Schenectady (County)		12-26-64 (1) 12-26-64 (2)		
955	Utica (Oneida Co.)		12-26-64 (2)*	12-26-64R15(BC)*	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		NORTH CAROLINA			
5061	Asheville (Mun.)	12-11-64 (1)	12-11-64 (1)	12-11-64R34	
			12-11-64 (2)		
690	Fayetteville (Grannis)	12-10-64R3	12-10-64 (1)		
670	New Bern (Simmons-Nott)	12-4-64 (1)	12-4-64 (1)		
689	Rocky Mount	12-12-64 (1)			
		OHIO			
5208	Athens (Ohio Univ.)		12-18-64 (1)*		
724	Middletown (Hook Fld Mun)		12-4-64 (1)		
5053	St. Clairsville (Alderman Fld.)	12-11-64 (1)			
5047	Sidney	12-4-64 (1)			
184	Toledo (Express)		12-18-64 (1)	12-18-64R7	
		OKLAHOMA			
22	Ardmore	12-11-64 (1)	12-11-64 (1)		
727	Okmulgee	12-18-64 (1)			
		OREGON			
15	Baker	12-11-64Rad-297			12-11-64
		12-11-64DME (1)			
130	Portland (Intnl)	12-18-64DME (1)	12-18-64 (1)	12-18-64R10R	12-18-64 (1)
			12-18-64 (2)	12-18-64R28R	
				12-18-64R10L(BC)	
145	Redmond (Roberts Fld)	12-12-64 (1)			12-12-64
188	Roseburg (Mun.)	12-12-64DME (1)*			
		12-26-64 (1)			
		PENNSYLVANIA			
23	Hazleton	12-4-64 (1)	12-4-64 (1)		
70	Pittsburgh (Greater)	12-26-64DME (1)	12-26-64 (4)		
57	Williamsport (Lycoming County)			12-11-64R27	12-11-64 (1)
					12-11-64 (2)
124	Greer (Greenville–Spartanburg)	SOUTH CAROLINA	12-4-64 (1)	12-4-64 R3	
				12-4-64R21 (BC)	
77	Rapid City	SOUTH DAKOTA			
		12-12-64 (1)	12-12-64 (1)		
96	Sioux Falls (Joe Foss Fld)	12-12-64 (2)			
		12-12-64DME (1)*			
44	Watertown	12-19-64 (1)		12-19-64R21 (BC)	
		12-12-64 (1)			
		12-12-64DME (1)*			
53	Memphis (Metropolitan)	TENNESSEE			
			12-11-64 (2)	12-11-64R35	

* NEW CHART

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE •• COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		TEXAS			
481	Alice (Intnl)	12-11-64Rad-261 12-11-64 R31			
106	Dallas (Love Field)	12-19-64R18	12-19-64 (2)		
742	Dallas (Redbird)		12-11-64 (1)		
5122	Johnson City		12-26-64 (1)		
		UTAH			
980	Hanksville (FAASite 54)	12-11-64 (1)			
365	Salt Lake City (Mun. No. 1)	12-11-64 (1) 12-11-64DME (1) 12-11-64DME (2) 12-11-64DME (3)	12-11-64 (1)	12-11-64R34L 12-11-64R16R(BC)	
		VIRGINIA			
499	Lynchburg (Preston Glenn)	12-4-64 (1)	12-4-64 (1)	12-4-64R3	
		WASHINGTON			
5107	Bremerton (Kitsap Co.)		12-26-64 (1)		
138	Ephrata,	12-26-64 (1)			12-26-64
142	Everett (Paine Field)	12-18-64R16	12-18-64 (1)	12-18-64R16	
465	Yakima	12-26-64 (1)		12-26-64R27	
		WEST VIRGINIA			
852	Charleston (Kanawha)	12-12-64 (1) 12-12-64DME (1)			
616	Clarksburg (Benedum)	12-12-64 (1)			
650	Wheeling (Ohio County)	12-26-64 (1)		12-26-64R3	
		WISCONSIN			
937	Eau Claire	12-19-64 (1)			
		WYOMING			
72	Casper (Air Terminal)	12-26-64 (1)	12-26-64 (1) 12-26-64 (2)	12-26-64R7 12-26-64R25(BC)	
		PACIFIC ISLANDS			
2147	Guam I., Mariana Is., (Andersen AFB)		12-11-64 (1)		
		PUERTO RICO			
5248	Ponce (Mercedita)	12-4-64 (1)			
		RADAR			
EAST RADAR SHEETS Pages 1,2,3,4,5,6,7,8			12-18-64		
WEST RADAR SHEETS Pages 1,2,3,4,5,6			12-18-64		

* NEW CHART

DATES OF LATEST EDITIONS

Aeronautical Charts
Coast and Geodetic Survey

SECTIONAL

	Current Edition Date	Next Edition Date
Aberdeen	Aug 20 64	3/4/65
*Albany	Jul 23 64	2/4/65
Albuquerque	Aug 20 64	3/4/65
Aroostook	Apr 30 64	4/29/65
Austin	Nov 12 64	4/29/65
Beaumont	Sep 17 64	4/1/65
Bellingham	Dec 10 64	5/27/65
Birmingham	Oct 15 64	4/29/65
Boise	May 28 64	5/27/65
Boston	Sep 17 64	3/4/65
Burlington	Nov 12 64	4/29/65
*Butte	Jul 23 64	2/4/65
Casper	Oct 15 64	4/1/65
Charlotte	Oct 15 64	4/29/65
Chattanooga	Aug 20 64	2/4/65
Cheyenne	Dec 10 64	6/24/65
Chicago	Dec 10 64	5/27/65
Cincinnati	Aug 20 64	2/4/65
Cleveland	Nov 12 64	5/27/65
Corpus Christi	Jul 23 64	2/4/65
Dallas	Jul 23 64	2/4/65
Del Rio	Nov 12 64	11/11/65
Denver	Dec 10 64	6/24/65
Des Moines	Nov 12 64	4/29/65
*Detroit	Jan 7 65	7/22/65
Douglas	Oct 15 64	10/14/65
Dubuque	Sep 17 64	4/1/65
Duluth	Jul 23 64	7/22/65
Elko	Dec 10 64	5/27/65
El Paso	Aug 20 64	3/4/65
Fargo	Aug 20 64	3/4/65
Glacier Park	Oct 15 64	10/14/65
Grand Canyon	Dec 10 64	5/27/65
Grand Junction	Nov 12 64	5/27/65
Green Bay	Dec 10 64	5/27/65
*Huntington	Aug 20 64	2/4/65
Jacksonville	Nov 12 64	4/29/65
*Kansas City	Aug 20 64	2/4/65
Klamath Falls	Sep 17 64	4/1/65
*Kootenai	Feb 6 64	2/4/65
*La Grande	Jul 23 64	2/4/65
Lake Huron	May 28 64	5/27/65
Lake Superior	Aug 20 64	3/4/65
Lake of Woods	Aug 20 64	8/19/65
Lewiston	Nov 12 64	4/29/65
Lincoln	Oct 15 64	4/1/65
→Little Rock	Jan 7 65	7/22/65
Los Angeles	Aug 20 64	3/4/65
Miami	Sep 17 64	4/1/65
Miles City	Oct 15 64	4/29/65
Milwaukee	Dec 10 64	5/27/65
Minot	Sep 17 64	3/4/65
*Mobile	Jul 23 64	2/4/65
Mt. Shasta	Nov 12 64	5/27/65
→Mt. Whitney	Jan 7 65	6/24/65
→Nashville	Jan 7 65	7/22/65
New Orleans	Sep 17 64	4/1/65
New York	Oct 15 64	4/1/65
Norfolk	Sep 17 64	3/4/65
Oklahoma City	Nov 12 64	4/29/65
Orlando	Nov 12 64	4/29/65
→Phoenix	Jan 7 65	7/22/65
Pocatello	Oct 15 64	4/1/65
*Portland	Jul 23 64	2/4/65
Prescott	Sep 17 64	4/1/65
Rapid City	Dec 10 64	6/24/65
→Reno	Jan 7 65	6/24/65
→Roswell	Jan 7 65	6/24/65
→Sacramento	Jan 7 65	6/24/65
Salina	Sep 17 64	4/1/65
Salt Lake City	Dec 10 64	5/27/65
→San Antonio	Jan 7 65	6/24/65
San Diego	Aug 20 64	3/4/65
→San Francisco	Jan 7 65	6/24/65
Savannah	Sep 17 64	3/4/65
Seattle	Dec 10 64	6/24/65
→Shreveport	Jan 7 65	6/24/65
Sioux City	Nov 12 64	5/27/65
Spokane	Dec 10 64	6/24/65
Trinidad	Sep 17 64	3/4/65
Tulsa	Oct 15 64	4/29/65
Twin Cities	Nov 12 64	4/29/65
Washington, D.C.	Oct 15 64	4/1/65
→Wichita	Jan 7 65	6/24/65
Williston	Jul 23 64	7/22/65
Winston-Salem	Oct 15 64	4/1/65
Yellowstone Park	Sep 17 64	3/4/65
Hawaiian Is.	Dec 10 64	12/9/65

LOCAL

	Current Edition Date	Next Edition Date
Atlanta	Oct 15 64	4/29/65
Boston	Sep 17 64	3/4/65
Brownsville	Jul 23 64	2/4/65
Chicago	Dec 10 64	5/27/65
Cleveland	Nov 12 64	5/27/65
*Dallas-Ft. Worth	Jul 23 64	2/4/65
*Dayton	Aug 20 64	2/4/65
Denver	Dec 10 64	6/24/65
*Detroit	Jan 7 65	7/22/65
→Honolulu	Jan 7 65	1/6/66
*Indianapolis	May 28 64	2/4/65
Jacksonville	Nov 12 64	4/29/65
*Kansas City	Aug 20 64	2/4/65
Los Angeles	Aug 20 64	3/4/65
Miami	Sep 17 64	4/1/65
Milwaukee	Dec 10 64	5/27/65
Montgomery	Oct 15 64	4/29/65
New York	Oct 15 64	4/1/65
Norfolk	Sep 17 64	3/4/65
Philadelphia	Oct 15 64	4/1/65
→Phoenix	Jan 7 65	7/22/65
Pittsburgh	Nov 12 64	5/27/65
*St. Louis	Aug 20 64	2/4/65
San Diego	Aug 20 64	3/4/65
→San Francisco	Jan 7 65	6/24/65
San Juan	Dec 10 64	12/9/65
Seattle	Dec 10 64	6/24/65
Washington	Oct 15 64	4/1/65

DISCONTINUED

*New Edition published. Obsoletes Earlier Edition on Jan. 7, 1965

New Edition will be published prior to Effective date Feb. 4, 1965

DATES OF LATEST EDITIONS (Continued)

WORLD AERONAUTICAL - UNITED STATES

WAC 62	June 16, 1964
WAC 63	July 7, 1964
WAC 64	Aug. 24, 1964
*WAC 76	Nov. 1, 1963
*WAC 77	Oct. 18, 1963
*WAC 78	Oct. 17, 1963
WAC 117	May 6, 1964
WAC 118	June 3, 1964
WAC 119	July 8, 1964
WAC 135	July 9, 1964
WAC 136	Aug. 3, 1964
WAC 137	Aug. 7, 1964
WAC 138	Mar. 17, 1964
WAC 139	Mar. 3, 1964
WAC 186	Mar. 17, 1964
WAC 190	July 6, 1964
WAC 191	Aug. 5, 1964
WAC 192	Aug. 19, 1964
WAC 193	Aug. 10, 1964
WAC 215	Jan. 20, 1964
WAC 216	Aug. 31, 1964
WAC 217	Aug. 28, 1964
WAC 218	Apr. 6, 1964
WAC 219	Apr. 2, 1964
WAC 262	Apr. 27, 1964
WAC 263	Apr. 21, 1964
WAC 264	Apr. 15, 1964
→WAC 265	Sept. 25, 1964
→WAC 266	Oct. 2, 1964
WAC 267	Oct. 30, 1963
WAC 268	Mar. 18, 1964
WAC 269	Aug. 26, 1964
WAC 304	Jan. 21, 1964
WAC 305	Sept. 4, 1964
*WAC 306	Sept. 18, 1963
*WAC 307	Sept. 24, 1963
*WAC 308	Nov. 4, 1963
WAC 309	Dec. 3, 1963
WAC 310	Dec. 5, 1963
WAC 357	May 8, 1964
WAC 358	May 20, 1964
*WAC 359	Oct. 29, 1963
*WAC 360	Jan. 18, 196
*WAC 361	Jan. 18, 196
WAC 362	July 28, 196
WAC 363	Aug. 3 196
WAC 364	Jan. 23, 196
WAC 404	July 29, 196
WAC 405	Feb. 14, 196
WAC 406	Aug. 12, 196
WAC 407	Mar. 6, 196
WAC 408	June 15, 196
WAC 409	June 26, 196
WAC 410	June 26, 196
WAC 466	May 27, 196
WAC 467	June 8, 196
WAC 468	Dec. 19, 196
WAC 469	Jan. 6, 196
WAC 470	Feb. 5, 196
WAC 471	Apr. 3, 196
WAC 522	Jan. 9, 196
WAC 525	June 1, 196

JET NAVIGATION

JN 29	United States Northwest	Apr. 3, 1964
JN 30	United States Northeast	Mar. 2, 1964
JN 44	United States Southwest	Feb. 3, 196
JN 45	United States Southeast	Jan. 2, 196

PLANNING

AP 9		Nov. 6, 1963
* AERONAUTICAL CATALOG		Aug. 1964

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3071	North Atlantic	Oct. 12, 196
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See: "Dates of Latest Editions - Instrument Approach Procedure Charts" for current dates of AL Charts.
"Dates of Latest Editions - Flight Information Publications of the United States" for current dates of Radio Facility Charts.

† DISCONTINUED

→ New Edition published. Obsoletes Chart of Earlier date.

* New Edition will be published in about one month.

AIRMAN'S INFORMATION MANUAL

FLIGHT DATA AND SPECIAL OPERATIONS

SECTION III

EFFECTIVE 0501Z 4 FEBRUARY 1965

To 0501Z 4 MARCH 1965

FEDERAL AVIATION AGENCY

AIRMAN'S INFORMATION MANUAL

INTRODUCTION

This Airman's Information Manual (AIM) has been developed by the Federal Aviation Agency as a pilot's operational manual replacing the Airman's Guide, Directory of Airports and Seaplane Bases, and the Flight Information Manual within the conterminous United States. The existing Alaska Airman's Guide and Chart Supplement and the Pacific Airman's Guide and Chart Supplement will continue to be published every 28 days.

The new AIM presents, in a single document, all information necessary for the planning and conduct of a flight in the National Airspace System. The content and format reflect user identified requirements and provide a "one package" approach.

The manual is divided into six sections, each composed of a specific category or family of information, fashioned into a format consistent with the operational needs of aviation. In contradistinction to previous flight information publications issued by FAA, the design concept of the AIM has provided for consolidation of similar information, segregation of air traffic control procedural information and its sequencing according to operational use, and the elimination of administrative and non-essential data.

The AIM is designed to be carried in the cockpit and may be used collectively or independently by sections. The manual is published as loose-leaf pages, and is three-hole punched to fit a standard three-ring binder.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line.

Each section of the AIM will be published at varying intervals during the year, depending on the stability or frequency or change of the information.

The various sections and the revision cycle of each are:

Section I	Basic Flight Manual	Semi-annually
Section II	ATC Operations and Procedures	Quarterly
Section III	Flight Data and Special Operations	Every 28 days
Section III–A	Notices to Airmen	Every 14 days
Section IV	Airport Directory	Semi-annually
Section IV–A	Airport/Facility Directory	Every 28 days

The above schedule provides a completely new manual every 6 months.

The revision cycle of Sections III and IV–A is every 28 days, the same as the IFR Enroute charts. Since the charts contains basically enroute information, the AIM serves as a supplementary publication, providing information for planning and terminal operations. Therefore, radio navigation aids are on the charts and unlike the Airman's Guide, are not tabulated in the AIM. Every effort has been made to minimize and eliminate duplication of information within publicatons and between publications and charts.

A brief description of the contents of each section in the AIM follows.

Section I—Basic Flight Manual

This section contains information of an instructional, educational, and training nature, assembled and presented in a systematic format, categorized by subject matter. The novice pilot, as well as the more experienced pilot will find here the basic fundamentals of knowledge for operating in the National Airspace System, information on adverse factors affecting safety of flight and health, and a list af available publications of general operational interest.

Section II—ATC Operations and Procedures

Section II is designed to serve as an official means of disseminating pertinent ATC information of interest to all pilots. The information governing flight operations, air traffic services, and procedures is presented in layman's language and avoids ambiguities which often result from individual interpretations of rules. Data is seqeunced in accordance with typical flight operations: Preflight, departure, enroute, arrival and landing procedures. In addition, supporting general procedures and information such as ADIZ, and SCATER procedures is included. Emergency procedures are combined and published at the end of the section.

Section III—Flight Data and Special Operations

Operational data most subject to change and which is not appropriate for inclusion within other sections of the AIM is carried in Section III. Because it contains critical flight data most subject to change, this section should be kept close at hand in the event of a divergence in enroute flight. Some of the most significant material contained in Section III is described below.

A glossary or explanation of aeronautical term or phrases used in the AIM, and a list of commonly used abbreviations.

Special Notices of pertinent current information of operational value for both preflight planning and enroute operations. These Special Notices are divided into three categories: General Notices—those of a general nature with universal application; Area Notices—those pertinent to a specific geographical area; and Regulatory Notices—these are condensations of changes to or new rules, parts, Advisory Circulars, Special Procedures and other regulatory matters of operational interest.

A Visual Navigation Chart Bulletin, as a means of updating the Sectional Charts, providing a cumulative tabulation of the major changes in aeronautical information occurring since the last chart publication date.

Detailed description tabulations and charts of Special Operations such as Oil Burner Routes and military refueling tracks.

Section III—A—Notices to Airmen

This section serves as a supplement, issued every fourteen days, to the AIM and provides operationally required data pertinent to the continuous NOTAMs carried in the daily teletypewriter NOTAM Summary (NOSUM), revisions to Oil Burner routes, and those airman advisories deemed essential to the safe conduct of flight.

Sections IV and IV–A—Airport Directory

Within Sections IV and IV–A there are provided an Airport Directory, a tabulation of ARTCC communications, frequencies, and a tabulation of Flight Service Stations.

Section IV contains the Airport Directory which is a listing of all known airports, heliports, and seaplane bases available for transient civil use within the conterminous United States, and indicates those airport services and facilities available at each. The seaplane tabulation and the heliport tabulation follow the airport tabulation. Military airports and privately owned and operated airports closed to civil aviation are not listed.

Section IV–A contains an Airport/Facility Directory providing an integrated tabulation of major airports, heliports and seaplane bases which have terminal navaids and communications facilities available at the airport. This tabulation combines all facilities and services available at each airport (heliport or seaplane base) or terminal area into a single listing.

In both Sections IV and IV–A, airports are listed alphabetically by geographical location (city or town) within each state. Airports tabulated in IV–A are cross-referenced in Section IV.

In Section IV–A, the Airport/Facility Directory is followed by the tabulation of all ARTC Center VHF communications frequencies. This, in turn, is followed by the tabulation of FSS's, which shows their telephone numbers, the number of the associated Weather Bureau Office, and other pertinent data.

• The Master Alphabetical Index of the entire Manual is provided in this Section. This complete and comprehensive index lists all items of information, cross referenced

under all headings to which reference might reasonably be made, giving section and page number. Within the index, any reference involving emergency actions or procedures is printed in bold-face type.

Errors, Omissions, or Suggested Changes

Errors, omissions, or suggested changes should be forwarded to the Federal Aviation Agency, Air Traffic Service, Attention AT-600, Washington, D.C. 20553. Airport managers, operators and owners are urged to review data for their airport and report any errors or omissions to FAA at the address given above.

Procurement

The Airman's Information Manual is available on annual subscription for $15.00, plus $4.00 additional for foreign mailing. Requests should be directed to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

• INTRODUCTION

Section III—FLIGHT DATA AND SPECIAL OPERATIONS

Section III is published every 28 days and contains operational flight data most subject to continuous change that is not appropriate for inclusion within other sections of the Manual. Because it contains such critical flight data, this section should be kept close at hand in the event of a divergence in en route flight.

The information in Section III is presented in various tabulations or grouping arrangements appropriate to the specific items. Typical examples are: Preferred Routes, VOR Receiver Check Points, Parachute Jumping Areas, and Substitute Route Structures.

As a means of updating the Sectional Charts produced by the Coast and Geodetic Survey, Department of Commerce, a Visual Navigation Chart Bulletin is included in Section III. This bulletin provides a cumulative tabulation of the major changes in aeronautical information that have occurred since the last publication date (normally every 6 months) of each sectional chart. Only those changes to controlled airspace and special use airspace, airports, and radio navigation facilities that present a hazardous condition or impose a restriction on the pilot are listed, thereby continually providing the VFR pilot with the essential data for keeping his sectional charts current until they are reissued.

At the end of Section III are grouped detailed tabulations and charts of special operations and areas such as Oil Burner Routes, and military low altitude refueling tracks. This arrangement provides a consolidated presentation of areas and special operations that are not designated through rule-making procedures.

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GLOSSARY OF AERONAUTICAL TERMS

E DEFENSE IDENTIFICATION ZONE (ADIZ)—The area of air- ace over land or water within which the ready identi- ation, the location, and the control of aircraft are re- ired in the interest of national security. For operat- g details see ADIZ procedures.

IRPORT ADVISORY AREA—The area within five statute iles of an uncontrolled airport on which is located a light Service Station so depicted on the appropriate rtional Aeronautical Chart.

IRPORT ADVISORY SERVICE—A service provided by a Flight rvice Station to enhance the safety of terminal oper- ions of airports where a station is operating but where ere is no control tower.

IRPORT SURFACE DETECTION EQUIPMENT (ASDE)—Radar uipment specifically designed to detect all principal atures on the surface of an airport, including vehicular affic, and to present the entire picture on a radar indi- tor console in the control tower. ASDE has a maxi- um range of four miles, though its 16 inch diameter ope usually displays an area of only one mile radius out the control tower.

IRPORT SURVEILLANCE RADAR (ASR)—Radar providing posi- on of aircraft by azimuth and range data without ele- ation data. It is designed for a range of 50 miles.

IRPORT TRAFFIC AREA—The airspace within a circular mit defined by a five statute mile horizontal radius om the geographical center of an airport at which an erative airport traffic control tower is located and ex- ending upwards from the surface to, but not including, 000 feet above the surface.

R ROUTE SURVEILLANCE RADAR (ARSR)—Long range radar hich increases the capability of ATC for handling heavy l route traffic. An ARSR site is usually located at some istance from the ARTCC it serves.

R ROUTE TRAFFIC CONTROL CENTER (ARTCC)—A facility stablished to provide traffic control service to Instru- ent Flight Rules (IFR) flights operating within con- olled airspace and principally during the en route hase of flight.

LTITUDE RESERVATION (ALTRV)—Airspace utilization under rescribed conditions, normally employed for the mass ovement of aircraft or other special user requirements hich cannot otherwise be accomplished. ALTRV's are pproved by the appropriate FAA facility.

PPROACH CONTROL SERVICE—Air traffic control service, rovided by a terminal area traffic control facility, for rriving and or departing IFR flights and, on occasion, FR flights.

●AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)—The continuous broadcast of recorded noncontrol information in selected high activity terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information.

CARDINAL ALTITUDES OR FLIGHT LEVELS—"Odd" or "even" thousand-foot altitudes or flight levels. Examples: 5000, 6000, 7000, FL 250, FL 260, FL 270.

CEILING—The height above the ground or water of the lowest layer of clouds or obscuration phenomena that is reported as "broken," "overcast," or "obscuration" and not classified as "thin" or "partial."

CENTRAL ALTITUDE RESERVATION FACILITY (CARF)—An Air Traffic Service facility established to conduct the volume of coordination, planning and approval of special user requirements under the altitude reservation concept.

CONSOLAN—A low frequency, long-distance navaid used principally for transoceanic navigation.

CONTERMINOUS U.S.—Forty-eight states and the District of Columbia.

CONTINENTAL CONTROL AREA—The area, which includes that airspace within the contermious United States at and above 14,500 feet MSL, excluding airspace less than 1,500 feet above terrain, and prohibited and restricted areas (except certain specified restricted areas).

CONTINENTAL U.S.—Forty-nine states. The original 48 states and Alaska.

CONTROL AREA—Controlled airspace extending upwards from a specified height above the surface of the earth. Unless otherwise provided in appropriate cases, control areas extend upward from 700 feet above the surface until designated from 1,200 feet above the surface or from at least 500 feet below the MEA, whichever is higher, to the base of the continental control area.

CONTROL ZONE—Controlled airspace extending upwards from the surface of the earth. Control zones may include one or more airports and are normally circular areas 5 statute miles in radius with extension where necessary to include instrument approach and departure paths.

CRUISE—The term "cruise" used instead of "maintain" in an ATC clearance indicates that descent from cruising altitude may be commenced at pilot's discretion without further clearance from ATC. "Cruise" is normally used only on relatively short flights in uncongested areas, and is authorization for the flight to proceed to, and make an approach at, destination.

DISCRETE FREQUENCY—A frequency assigned a particular function.

EXPECTED APPROACH CLEARANCE TIME (EAC)—The time at which it is expected that an arriving aircraft will be cleared to commence approach for a landing.

FINAL APPROACH—IFR—The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, commencing at the point of interception of said course and extending to the airport or the point where circling for landing or missed approach is executed.

FINAL APPROACH—VFR—A flight path of a landing aircraft in the direction of landing along the extended runway center line from the base leg to the runway.

FIX—A geographical position determined visually, by reference to one or more radio navigational aids, by celestial plotting, or by another navigational device.

FLIGHT ADVISORY SERVICE—Advice and information provided by a facility to assist pilots in the safe conduct of flight.

FLIP—Flight Information Publication.

FLIGHT LEVEL (FL)—A level of constant atmospheric pressure related to a reference datum 29.92" HG. For example: Flight Level 250 is equivalent to an altimeter indication of 25,000 feet, and Flight Level 265 to 26,500 feet.

FLIGHT SERVICE STATION (FSS)—A facility operated by the FAA to provide flight assistance service.

IFR CONDITIONS—Weather conditions below the minimum prescribed for flights under VFR.

INITIAL APPROACH—Initial approaches to a facility are normally made over specified routes to the primary navigation facility. When the approach fix is not the primary navigation facility, the transition routes are specified and shown on the particular AL chart. The minimum en route altitude for the route along which the pilot has been flying is normally used as the initial approach altitude. The high level initial approach altitude is usually termed "Initial Penetration Altitude" and is considered as the altitude at which the aircraft begins a penetration. This altitude is established for each particular procedure and is indicated on the associated AL chart.

INTERROGATOR—The ground-based surveillance radar beacon transmitter-receiver which scans in synchronism with a primary radar, transmitting discrete radio signals which repetitiously request all transponders, on the mode being used, to reply. The replies received are then mixed with the primary radar video to be displayed on the same plan position indicators.

JET ROUTES—A high altitude route system, at and above 18,000 feet MSL, predicated on a network of designated high altitude VHF/UHF facilities. (For operating procedures applicable to this system see ENROUTE).

JOINT USE RESTRICTED AREA—An area wherein an aircr may operate if prior permission has been granted either the restricted area "using agency" or the "c trolling agency." (1) The using agency organization, military command whose activity within a restric area necessitated the area being so designated; exc that, in the case of those Restricted Area/Military Cli Corridors which do not have a designated controll agency, the using agency is a military air traffic cont facility which may be contacted for transit through climb corridor. The using agency notifies the controll agency whenever permission may be granted by controlling agency for transit of, or flight within a stricted area. (2) The controlling agency is a designa FAA facility which may authorize transit of a restric area.

MAINTAIN—The altitude/flight level instructions in ATC clearance normally require that a pilot "mainta the altitude/flight level at which the flight will oper when in controlled airspace. Altitude/flight le changes while en route should be requested prior to t time the change is desired.

MAXIMUM AUTHORIZED ALTITUDE (MAA)—The highest a tude on a Federal airway, jet route, or other direct rou for which a MEA is designated in F.A.R. Part 95 which adequate reception of navigation aid signals assured.

MINIMUM CROSSING ALTITUDES (MCA)—The lowest altitud at certain radio fixes at which an aircraft must cro when proceeding in the direction of a higher minimu en route IFR altitude.

MINIMUM EN ROUTE IFR ALTITUDE (MEA)—The altitude effect between radio fixes which assures acceptable na gational signal coverage and meets obstruction clearan requirements between those fixes.

MINIMUM OBSTRUCTION CLEARANCE ALTITUDE (MOCA)—T specified altitude in effect between radio fixes on VO airways, off-airway routes on route segments, whi meets obstruction clearance requirements for the enti route segment and which assures acceptable navigation signal coverage only within 22 nautical miles of a VO

MINIMUM RECEPTION ALTITUDE (MRA)—The lowest altitu required to receive adequate signals to determine specif VOR/VORTAC/TACAN fixes.

MODE—The number or letter referring to the specif pulse spacing of the signal transmitted by an interrog tor.

RADAR BEACON (SECONDARY RADAR)—A radar system i which the object to be detected is fitted with cooperativ equipment in the form of a radio receiver/transmitte (transponder). Radio pulses transmitted from th searching transmitter/receiver (interrogator) site ar received in the cooperative equipment and used to trig ger a distinctive transmission from the transponde This latter transmission, rather than a reflected signa is then received back at the transmitter/receiver site.

ADAR ADVISORY SERVICE—The provision of advice or information based on radar observation.

ADIAL—A radial is a magnetic bearing extending from VOR, VORTAC, or TACAN.

IMARY RADAR—A radar system in which a minute portion of a radio pulse transmitted from a site is reflected from an object and then received back at that site.

OHIBITED AREA—Designated airspace within which the ght of aircraft is prohibited.

ARGET—The indication displayed on a radar scope resulting from a primary radar return or a radar beacon reply.

ANSITION AREA—An area extending upward from 1,200 et or higher above the surface when designated to mplement control zones; from 700 feet above the surce when designated in conjunction with an airport with control zone but for which an instrument approach ocedure has been prescribed; or from 1,200 feet or gher above the surface when designated in conjuncn with airway route structures or segments. Unless herwise limited, transition areas terminate at the base the overlying control area or Continental Control Area.

ANSPONDER—The airborne radar beacon receiver-transitter which automatically receives radio signals from l interrogators on the ground, and selectively replies th a specific reply pulse or pulse group only to those nterrogations" being received on the mode to which it set to respond.

CTOR—A heading issued to the pilot for the purpose of oviding navigational guidance by means of radar.

SIBILITY, PREVAILING—The horizontal distance at which rgets of known distance are visible over at least half the horizon. It is normally determined by an observer or close to the ground viewing buildings or other milar objects during the day and ordinary city lights night. Under low visibility conditions the observaons are usually made at the control tower. Visibility REPORTED IN MILES AND FRACTIONS OF ILES in the Aviation Weather Report. If a single value does not adequately describe the visibility, additional information is reported in the "Remarks" section of the report.

VISIBILITY, RUNWAY—The horizontal distance at which a stationary observer near the end of the runway can see an ordinary light (about 25 candlepower) at night or a dark object against the horizon sky in the daytime. In practice the human observer is used very little for this observation. Instead runway visibility is normally determined by a transmissometer (a photoelectric device calibrated in terms of a human observer). It is REPORTED IN MILES AND FRACTIONS OF MILES in the "Remarks" section of the Aviation Weather Report. A meter in the control tower gives the FAA traffic controller a continuous indication of the runway visibility at transmissometer locations. Runway visibility, where available, is used in place of prevailing visibility for the determination of minimums on a transmissometer runway. This program is gradually being replaced by Runway Visual Range at transmissometer locations.

VISIBILITY, RUNWAY VISUAL RANGE (RVR)—An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end; it is based on the sighting of either high intensity runway lights or on the visual contrast of other targets—whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal, AND NOT SLANT, visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is REPORTED IN HUNDREDS OF FEET. At the present time, RVR observations are automatically furnished to FAA tower controllers at approximately 25 locations from readout equipment connected to the remote transmissometer installation. RVR provides an additional operating minimum at fields equipped with specified navigational aids. For example, at the present time the RVR minimum at Newark is 2000 ft. (in combination with a minimum descent altitude of 218' MSL) for both takeoffs and landings regardless of the reported ceiling and visibility.

VOT—VHF facility transmitting a test signal to determine the operational status of VOR receivers.

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

acft..... aircraft
adjt..... adjacent
admin.... administration
AGL..... above ground level
Airgi..... Airguide
•AL..... Approach and Landing Chart
alt..... altitude
amdt..... amendment
ANRA.... air navigation radio aids
ant..... antenna
apch..... approach
apchg..... approaching
aprxly.... approximately
arpt..... airport
arr..... arrival/arrive
ARTCC... Air Route Traffic Control Center
ASDE..... airport surface detection equipment
ATC..... air traffic control
•ATIS..... Automatic Terminal Information Service
auto..... automatic
aux..... auxiliary
avbl..... available
awy..... airway

BC..... back course
bcn..... beacon
bcst..... broadcast
bldg..... building
bndry..... boundary
brg..... bearing
btn..... between

clsd..... closed
clrnc..... clearance
cntr..... center
Co..... county
comm.... communication
comsnd... commissioned
comsng... commissioning
config..... configuration
constr.... construction
constrd... constructed
cont..... continuous/continuously
crs..... course
CS/T..... combined station/tower
ctc..... contact
ctl..... control
ctld..... controlled

dalgt..... daylight
demsnd... decommissioned
demol.... demolition
DF..... direction finder
discntd... discontinued
DME..... UHF standard (TACAN compatible) distance measuring equipment
dptg..... departing
dptr..... departure

efctv..... effective
elev..... elevation
emgcy.... emergency
eng..... engine
eqpmt.... equipment
excp..... except
extsn..... extension
extsv..... extensive

facil..... facility
flashg.... flashing
fld..... field
flt..... flight
flwg..... following
FM..... fan marker
fone..... telephone
freq..... frequency
FSS..... Flight Service Station

GCA..... groundcontrolled approach
gnd..... ground
GWT..... gross weight

•H..... Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
•HH..... Non-directional radio beacon (homing), power 2000 watts or more
hi-..... high-
hr..... hour
hvy..... heavy
hwy..... highway

ident..... identification
•IFF..... Identification Friend from Foe
IFR..... Instrument Flihgt Rules
IFSS..... International Flight Service Station
ILS..... instrument landing system
imdtly.... immediately
inbnd..... inbound
indef..... indefinitely
info..... information
inop..... inoperative
inst..... instrument
int..... intersection
intl..... international
intsv..... intensive

J-bar..... jet runway barrier

kc..... kilocycles

lat..... latitude
lcl..... local
lclzr..... localizer
lctd..... located
lctn..... location
LFR..... Low/Medium frequency radio range
lgt..... light
lgtd..... lighted
lgtg..... lighting
LMM..... compass locator at middle marker ILS
lnd..... land
lndg..... landing
LOM..... compass locator at outer marker ILS
long..... longitude

M..... magnetic (after a bearing)
MAA..... maximum authorized altitude
mag..... magnetic
maj..... major
max..... maximum
mc..... megacycles
MCA..... minimum crossing altitude
MEA..... minimum enroute IFR altitude
memi..... memorial
•MH..... Non-directional radio beacon (homing), power less than 50 watts
mi..... mile
min..... minimum or minute
MM..... middle marker ILS
MOCA.... minimum obstruction clearance altitude
mod..... modernization/modification
MRA..... minimum reception altitude
mrkd..... marked
mrkg..... marking
MSL..... mean sea level
mun..... municipal
natl..... national
navaid.... navigational aid
ngt..... night
nmi..... nautical mile/s
No..... number

obstn..... obstruction
oct..... octane
OM..... outer marker ILS
operg..... operating
opern..... operation
outbnd.... outbound

patn..... pattern
permly.... permanently
p-line..... pole line
pwr..... power

quad..... quadrant

rad..... radial
RAE..... Royal Aircraft Establishme visual glide slope indica
RAPCON.. radar approach control
RATCC... radar air traffi control cent
rbn..... radio beacon
rcv..... receive
rcvg..... receiving
rcvr..... receiver
rdo..... radio
reconstr... reconstruction
REIL..... runway end ide tification ligi
relctd..... relocated
rgt..... right
rng..... range
rnwy..... runway
ruf..... rough
RVR..... runway visual range
RVV..... runway visibili values

•SIF..... Selective Identification Feature (of th basic Mark radar beacc system)
sked..... schedule
smi..... statute mile s
SR..... sunrise
SS..... sunset
stn..... station
sys..... system

'..... true (after a bearing)
ACAN... UHF navigational facility—omni-directional course and distance information
t..... tetrahedron
c..... traffic
of..... take-off
nprly.... temporarily
tmpry.... temporary
trans..... transcribed
trml..... terminal
trng..... training
tsmt..... transmit
tsmtg..... transmitting
tsmtr..... transmitter
TV..... television
twr..... tower
txwy..... taxiway
UFN..... until further notice
unavbl.... unavailable
uncltd.... uncontrolled
unlgtd.... unlighted
unmrkd... unmarked
VASI..... visual approach slope indicator
vcnty..... vicinity
VFR..... visual flight rules
VOR..... VHF navigational facility—omni-directional, course only
VOR-DME.. collocated VOR navigational facility and UHF standard navigational facility and UHF standard distance measuring equipment
VORTAC.. collocated VOR and TACAN navigational facilities
VOT..... a VOR Receiver Testing Facility
vsby..... visibility
wea..... weather
WIP..... work in progress
wt..... weight

THE NOTAM CODE

INTRODUCTION

The NOTAM Code provides for coding NOTAM information to reduce telecommunications transmission time and reduce translation difficulties in the International Service.

A NOTAM Code group contains 5 letters. The first letter is always the letter Q to indicate a code abbreviation for use in the composition of NOTAMs. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

NOTAM code significations shall be amplified or completed where necessary by adding appropriate words, contractions, frequencies, location identifiers, place names, or figures. Approved abbreviations shall be used in preference to plain language whenever possible. The information necessary to complete a NOTAM code group, as indicated by a blank space, shall be given except when (1) the blank spaces are enclosed within parentheses or brackets to indicate their completion is optional; e.g., LHX QIEIK 15 MIN. Meaning: the LaJunta Colorado airport beacon is available on request at 15 minutes' notice; or (2) an alternative meaning shown in parentheses is selected and the blank space in this alternative meaning is complete; e.g., QAPOK 116.9. Meaning: the radio range on 116.9 Mc. resumed normal operation.

Expressions or words in parentheses which do not include blank spaces have the following significances:

(1) When following a blank space, signifies the explanation of information to be used in filling the preceding blank.

(2) When following a word or expression, signifies an alternative to the word or expression.

CODE GROUP FORMATION

5-letter NOTAM code groups are formed in the following manner:

(1) First Letter.—The letter Q.

(2) Second and Third Letters.—The appropriate combination of 2 letters, selected from the "2nd and 3rd letters" section of the code, identify the facility, service or danger to aircraft in flight being reported. The *second* letter has been restricted to A, E, I, O, or U. These letters also serve to classify the aid, facility, or service described: i.e., the letters A and E signify radio aids. The letter I signifies lighting facilities. The letters O and U signify airports, search and rescue, and dangers to aircraft in flight.

(3) Fourth and Fifth Letters.—The appropriate cominbation of 2 letters, selected from the "4th and 5th Letters" section, denote the operating status of the facility, service, or danger to aircraft being reported. The *fourth* letter has been restricted to A, E, I, O, or U.

DECODE

SECOND AND THIRD LETTERS

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	RADIO AIDS		
AA	. . . [*specify TWR, APP, ACC or FIC*] air traffic services receiver . . . kc/s. (*or* . . . Mc/s.).	AY	200 Mc/s. Distance Measuring Equipment.
AB	Inner marker, Instrument Landing System.	AZ	Station location marker VHF.
AC	. . . [*specify TWR, APP, ACC or FIC*] air traffic services transmitter . . . kc/s. (*or* . . . Mc/s.).	EA	En-route Surveillance Radar.
AD	Middle marker, Instrument Landing System.	EB	Broadcasting station (public).
AE	Outer marker, Instrument Landing System.	EC	CONSOL or CONSOLAN station.
AF	Fan-type marker.	ED	DECCA or DECTRA.
AG	Glide path, Instrument Landing System.	EE	Ground Controlled Approach System (GCA).
AH	Non-directional Beacon (NDB).	EF	Terminal Area Surveillance Radar.
AI	Instrument Landing System (ILS).	EG	Gee.
AJ	Radio range (other than VOR) and associated voice communications.	EH	Elevation element of the Precision Approach Radar (PAR).
AK	Radio receiving facilities.	EI	Monitoring device associated with . . . (*specify*) radio aid.
AL	Localizer, Instrument Landing System.	EJ	All air-ground facilities (except . . .).
AM	Locator, inner, Instrument Landing System.	EK	Precision Approach Radar (PAR).
AN	TACAN.	EL	LORAN.
AO	Locator, outers, Instrument Landing System.	EM	Azimuth element of the Precision Approach Radar (PAR).
AP	VOR (VHF Omnidirectional Radio Range) and associated voice communications.	EN	DME (1000 Mc/s. Distance Measuring Equipment).
AQ	VOR (VHF Omnidirectional Radio Range).	EO	Beam Approach Beacon System (BABS).
AR	Radio range (other than VOR).	EP	Radar responder beacon.
AS	Radio range leg.	EQ	Surveillance Radar Element (SRE) of GCA.
AT	Attentional signal.	ER	Radio transmitting facilities.
AU	Meteorological communications . . . kc/s. (*or* . . . Mc/s.).	ES	All radio-navigation facilities (except . . .).
AV	Voice communications . . . kc/s. (*or* . . . Mc/s.).	ET	Teletypewriter transmitting facility (ies).
AW	Unassigned.	EU	Radio direction-finding station . . . (*frequency or type*).
AX	Non-directional Beacon (NDB) and voice facility.	EV	VORTAC (the combination of VOR and TACAN).
		EW	Ground interrogator, SSR system.
		EX	Unassigned.
		EY	Ground movement radar.
		EZ	Unassigned.
	LIGHTING FACILITIES		
IA	Boundary lights.	ID	Channel lights.
IB	Aerodrome beacon.	IE	Light beacon.
IC	Unassigned.	IF	Floodlights.

DECODE

SECOND AND THIRD LETTERS (Contd.)

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	LIGHTING FACILITIES (Contd.)		
IG	Angle-of-approach lights.	IP	Approach light system [type . . . {*specify LSA (low intensity) or LSB (high intensity*}] (for runway number . . .).
IH	Taxiway lights.		
II	Hazard beacon.		
IJ	Threshold lights (for runway number . . .).	IQ	Runway alignment beacon.
		IR	Runway lights [type . . . {*specify LSA (low intensity) or LSB (high intensity)*}] (for runway number . . .).
IK	Flares.		
IL	All landing area lighting facilities.		
IM	Identification beacon.	IS	Strip lights [for strip . . . (*number or magnetic direction*)].
IN	Unassigned.	IT–IY	Unassigned.
IO	Obstruction lights.	IZ	Airway course lights.
	AERODROMES — SEARCH AND RESCUE — DANGERS TO AIRCRAFT IN FLIGHT		
OA	Land aerodrome.	UB	Mooring buoys.
OB	Beaching facilities.	UC	Unassigned.
OC	Water aerodrome.	UD	Prohibited, restricted or danger area designated as . . . (*name or reference identification*).
OD	Meteorological forecast service.		
OE	Meteorological observation service.		
OF	Meteorological watch service.	UE	Aircraft.
OG	Runway arresting gear.	UF	Fixed balloons.
OH	Helicopter landing area.	UG	Bombing or aerial depth charge dropping.
OI–OL	Unassigned.		
OM	All runways [except number(s) . . .].	UH	Air exercises (*or* flying displays).
ON	Stopway for runway number.	UI	Gun or missile firing.
OO	Taxiway(s).	UJ	Glider flying.
OP	Rescue vessel.	UK	Demolition of explosives.
OQ	Ocean Station Vessel.	UL	Landing direction indicator.
OR	Refueling [. . . type fuel(s) *or* . . . octane].	UM	Mooring and docking facilities.
		UN	Parachute jumping exercises.
OS	Search and rescue aircraft [*specify VLR, LRG, MRG, SRG or HEL*].	UO–UP	Unassigned.
		UQ	Apron.
OT	Crash and fire fighting facilities.	UR	Runway(s) and number(s).
OU	Unassigned	US	Strip . . . (*number or magnetic direction*).
OV	. . . [*specify TWR, APP, ACC or FIC*] air traffic service.	UT	Grass landing area.
		UU	Unassigned.
		UV	Fog dispersal equipment.
OW–OY	Unassigned.	UW–UY	Unassigned.
OZ	Warship.	UZ	Runway threshold (number . . .).
UA	Alighting area.		

DECODE
FOURTH AND FIFTH LETTERS

4th & 5th Letters	SIGNIFICATION	4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES		
AA	Unassigned.	EC	Characteristics *or* identification *or* radio call sign changed to . . .
AB	Usable for length of . . . and width of . . .	ED	Operating frequency(ies) will be changed to . . . kc/s. (*or* . . . Mc/s.) effective . . . (*date/time*).
AC	Covered by snow to a depth of . . . NOTE.—*This snow is not compacted.*	EE–EG	Unassigned.
AD	Cleared of soft snow, full length and width.	EH	Not heard.
AE	Totally free of snow and ice.	EI–EL	Unassigned.
AF	Covered by [. . . (*type*)] ice to a depth of . . .	EM	Military operations only.
AG–AH	Unassigned.	EN	Not available due to . . . (*specify reason*) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
AI	Operating without tone modulation.	EO	Unassigned.
AJ	Operating without coding.	EP	Available on prior permission (of . . .) only.
AK	Covered by compacted snow to a depth of . . .	EQ–ER	Unassigned.
AL	Operating on reduced power.	ES	Out of service from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] due to the following condition(s) . . .
AM	Snow clearance in progress [estimated time of completion is . . . (*date/time*)].	ET	Test operation only. NOT for operational use.
AN	Grass cutting in progress [estimated time of completion is . . . (*date/time*)].	EU–EV	Unassigned.
AO	Marked by . . .	EW	Completely withdrawn.
AP	Work is in progress [estimated time of completion is . . . (*date/time*)].	EX	Unassigned.
AQ	Work completed.	EY	Is outside the limits of its assigned ocean station.
AR	Snow clearance completed.	EZ	Is within the limits of its assigned ocean station.
AS	Grass cutting completed.	IA–IB	Unassigned.
AT	Sanding is in progress [estimated time of completion is . . . (*date/time*)].	IC	Report of apparent unreliability or track displacement hereby is cancelled.
AU	Appears unreliable.	ID	Available on request to . . .
AV	Covered by ice patches.	IE	Unassigned.
AW	Height of snowbanks is . . . (*figures and units*).	IF	Flight checked and found reliable.
AX	Braking action is . . . (A = *good*, B = *medium*, C = *poor*).*	IG–IJ	Unassigned.
AY	Are to avoid area, radius of danger being . . . (about the point . . .).	IK	Available on request (to . . .) immediately [*or* at . . . (*time period*) notice].
AZ	Will take place from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] (on the days of . . . between the hours of . . . and . . .) at . . . (*location*) (within the sector of . . . and a radius of . . .) at . . . height above . . . (*datum*).	IL	Hours of service are now . . .
		IM	Unassigned.
		IN	Operative (*or* re-operative), activated (*or* re-activated) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
EA	Unassigned.	IO	Operating normally.
EB	Location change to . . . effective . . . (*date/time*).		

DECODE

FOURTH AND FIFTH LETTERS (Contd.)

4th & 5th Letters	SIGNIFICATION	4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES (Contd.)		
IP	Track(s) reported to be displaced (. . . degrees) (. . . direction) of published bearing(s), other tracks probably have shifted.	OV–OW	Unassigned.
IQ	To be used as radio beacon only.	OX	Exercising at . . . (*date/time, location and height above the specified datum*).
IR	Magnetic track(s) towards station is are now . . . [will be . . . at . . . (*date/time*)].	OY–OZ	Unassigned.
IS	Operative (or *re*-operative) subject to conditions/limitations already published.	UA	Closed to all operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IT	Aircraft restricted to runways and taxiways.	UB–UC	Unassigned.
IU	Unserviceable for aircraft heavier than . . . tons.	UD	Closed to all night operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IV	Unsafe from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].	UE	Unassigned.
IW–IZ	Unassigned.	UF	Closed for an unknown duration due to flood.
OA–OF	Unassigned.	UG	Closed for an unknown duration [*or* until . . . (*date/time*)] due to ice or snow.
OG	Operative but ground checked only, awaiting flight check.	UH	Closed for an unknown duration [*or* until . . . (*date/time*)] due to thaw.
OH–OJ	Unassigned.	UI	Closed from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] for maintenance.
OK	Resumed normal operation.	UJ–UL	Unassigned.
OL	Track(s) ground checked, approved for instrument flying.	UM	Operating in an unmonitored status.
OM	Shut down for maintenance from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)]—disregard all signals.	UN–US	Unassigned.
ON–OQ	Unassigned.	UT	Operative but caution advised due to following condition(s) . . .
OR	Previously promulgated shutdown has been cancelled.	UU	Suitable for . . . (*specify*) equipped aircraft only.
OS	Unassigned.	UV	Covered by slush to a depth of . . .
OT	New facility in operation.	UW	Covered by water to a depth of . . .
OU	Operating without interruption for voice transmissions from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].	UX–UZ	Unassigned.

ATTENTION FAA PERSONNEL ATTENTION FAA PERSONNEL

AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE—FY 1965

Copy for inclusion in the Airman's Information Manual must be received no later than 001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Section

Effective Date	Section I	Section II	Section III	Section III—A	Section IV	Section IV—A
December 24				December 14		
January 7			December 21	December 21		December 21
January 21				January 11		
February 4			January 18	January 18		January 18
February 18				February 8		
March 4		February 8	February 16	February 16		February 16
March 18				March 8		
April 1			March 15	March 15		March 15
April 15				April 5		
April 29			April 12	April 12		April 12
May 13				May 3		
May 27	April 26	May 3	May 10	May 10	April 26	May 10
June 10				June 1		
June 24			June 7	June 7		June 7

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unl otherwise indicated, all activities are conducted during daylight hours and under VFR conditio

ALABAMA

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Headland Mun Arpt: 1 mi E. 1200 LST to sunset. Sundays. Up to 12,000′.

ARIZONA

●Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Up to 12,000′.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Fayetteville: 1 mi NNW Razorback Arpt. Mon thru Sat 2200GMT–sunset. Suns and holidays 1400 GMT– sunset.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

CALIFORNIA

Arvin: 1½ mi SW. 0800–SS Sat and Suns. Up to 15,000′ MSL.

Avenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000′.

Black Point: Sky diving weekends up to 12,500′.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500′ MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clear Lake: Into Clear Lake at 39°05′N, 122°51′W. Mon thru Sat. Up to 4400′ MSL.

El Cento NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absol alts of 2000′–2500′. Center of drop zone lctd at 36°38 121°46′W in Restricted Area R–2511. Ctc Fritzsche T for advisory info.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,5

Fresno, Chandler Arpt: 5 mi W. Heavy activity weeken holidays, and occasionally weekdays. Up to 15,0

Hollister Mun: 1 mi NE. Weekends and occasionally w days. 12,500′ MSL.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, half mile S of arpt. Up to 15,000′ MSL.

Lake Berryessa: Lat 38°31′, 122°12′. Mon thru Sat. Up 2000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld, Sant Calif., two mi out of ctl area. Daily, greatest activ weekends. Up to 15,000′.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends a holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weeken

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy l Linden and Sacramento VORs. Up to 9,500′.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000′ MSL

Milpotas, King Skylanes Arpt: 3 mi E; Weekends. Fr 12,500′.

Ojai, Henderson Arpt: Weekends from 14,000′ MSL 3 SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500′ MSL. We ends and holidays.

Piru: Tues-Fri. 2 mi E. Up to 14,500′.

San Diego, Brown Fld: NW corner of fld. Weekdays, mor ing hrs. Up to 15,000′.

San Diego–County Arpt (Gillespie Fld): Up to 20,000′ MS chute opening alt aprxly 2700–3000′ MSL in vcnty arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up 15,000′.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. We days and ngts. Up to 15,000′.

Santa Maria Arpt: Weekends and holidays. Up to 15,0 MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Su and holidays. Up to 18,500′ MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 a 20,000′.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs S Sun and holidays; week days 0500–0800 and 160 Up to 15,000′ MSL.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ SSE from 7500′ AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 13,500′ AGL.

Longmont Mun Arpt: Weekends and holidays up to 15,0

CONNECTICUT

[illegible], Johnnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

DELAWARE

[illegible]-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.

[illegible], American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

[illegible] Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.

[illegible], Airglades Arpt: Up to 12,000′.

[illegible] Mun Arpt: Up to 7,000′ daily and weekends.

[illegible]: 2 mi NE rdo bcn. Weekends and holidays. Up to 12,000′.

[illegible] AFB: Occasionally. Up to 1,000′ MSL.

[illegible] Arpt: Weekends. Up to 10,000′.

[illegible] Arpt: Daily and weekends. Up to 12,000′.

[illegible] Mun Arpt: 5 mi radius; weekends during daylight hrs and intermittently daily Mon thru Fri and at ngt. Up to 12,500′.

[illegible], Kay Larkin Arpt: Weekends.

[illegible] Base Island: Daily. Up to 12,500′.

[illegible] Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.

[illegible] Mun Arpt: Weekends.

[illegible] Arpt: Sundays. Up to 12,500′.

GEORGIA

[illegible], White Co Arpt: Weekends. Up to 12,500′.

[illegible], Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.

[illegible], Bellah Fld: Weekends. Up to 15,500′.

[illegible], Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

ILLINOIS

[illegible], Mercer Co Arpt: Evening and weekends. Up to 10,000′.

[illegible], Civic Meml Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.

[illegible] Arpt: ½ mi N. Up to 7,000′.

[illegible], Hammond Arpt: Weekends. Up to 12,500′.

[illegible], Vermilion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.

[illegible] Arpt: Daily.

[illegible], Greater Kankakee Arpt: Weekends. From 4000′.

INDIANA

[illegible], Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.

[illegible] Sun Arpt: Sundays. Within 5 mi radius. Up to 14,500′.

[illegible], Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

[illegible] Bluffs Mun Arpt: 1 mi S; up to 15,000′.

[illegible] Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

KANSAS

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.

Maize Arpt: Weekends and intermittently at other times. Up to 15,000′.

Salina Mun Arpt: Evenings and weekends. From 12,500′.

KENTUCKY

Henderson City Co. Arpt: 149° radial EVV VOR 8.1 nmi. Up to 10,000′ MSL.

Hopkinsville, Christian Co. Arpt: 4 mi NNE. Tues evenings and Weekends. Up to 12,500′.

Madisonville, Athey Arpt: Suns and holidays 0700–SS. Up to 12,500′.

Thornhill: 133° radial CVG VOR 15 nmi. Weekends. Up to 12,000′ MSL.

LOUISIANA

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.

Fort Polk, Polk AAF: 2 nmi radius.

Hammond Arpt: Intermittently. Up to 10,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.

Sanford: Unscheduled jumps from 2700′ to 12,500′.

Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland, Mexico Farms Arpt: Up to 3000′. Most activity weekends.

Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.

Elkton, Lovett Arpt: Weekends. Up to 3000′.

Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.

Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

MASSACHUSETTS

Agawam: Evenings, weekends and holidays.

Bedford, Hanscom Fld: 1300–2000Z Thur and Sat. Up to 1500′.

Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.

Mansfield Mun Arpt: 2–3 NM W (vcnty of old Attleboro Arpt). Up to 7,000′.

Mansfield Mun Arpt: Unscheduled. Mostly weekends and holidays. Up to 12,000′.

Maynard Ordnance Depot: Airdrops of personnel and hvy eqpmt from 500′ to 2500′ Thurs, between 1500Z and 2000Z, within 1 mi radius of 42°25′, 71°28′45″.

Montague, Turners Falls Arpt: Weekends and holidays. Up to 13,000′.

Orange Mun Arpt: 2 mi radius. Day and night. Most activity weekends and holidays; moderate weekends. Up to 14,500′.

Taunton Mun Arpt: Weekends. Up to 7200′.

MICHIGAN

E. Tawas, Iosco Arpt: Up to 13,500′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.
Marshall, Brooks Fld: Weekends. Up to 13,000′.
Monroe: 5 mi S. Weekends. Up to 15,500′.
Muskegon Northside Airport: Up to 15,000′.
Plainwell, Otsego-Plainwell Mun Arpt: Sundays.
Saginaw Arpt: Weekends. Up to 13,000′.
Wixom Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000′.

MINNESOTA

Aitkin Mun Arpt: Weekends.
Bethel: 2 mi E. Weekends. Up to 12,000′. Summer months: Wed afternoons.
Minneapolis, Flying Cloud Arpt: 5 SM S. Up to 1500′ MSL.

MISSISSIPPI

Lucedale, Farmco Arpt: Weekends. Up to 12,000′.

MISSOURI

Houston Meml Arpt: Weekends. Up to 12,000′ MSL.
St. Louis, Lobmaster Arpt: Weekends and holidays. Up to 11,000′.

MONTANA

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.
Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.
Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: Weekends. Up to 12,500′ MSL.
Las Vegas, Thunderbird Fld: 3.5 mi WSW 7 days a wk. Up to 12,500′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.
Flemington, Adams Arpk: Dalgt hrs. Weekends. Up to 25,000′.
Hightstown, Applegrath Landing Strip: Weekends. Up to 12,500′.
Lakehurst NAS-West Fld: Up to 12,000′.
Lakewood Arpt: Within 2 mi radius. Up to 12,500′.
Manville Kupper Arpt: Dalgt hrs daily. Up to 25,000′.
Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.
●**Erie Airways:** 22.5 NM SW of BUF VOR on V14, 3 mi NE of Angola, N.Y. SR–½ hr past SS. Up to 13,500′ MSL.
Fulton Arpt: Within 1 mi radius. Weekends and holida; Up to 15,000′.
Greene Arpt: Within 5 mi radius. Weekends and holid till 1 hr after SS. Wed 1500–1 hr after SS. Up 15,000′.
Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. to 13,000′ AGL.
Randolph Arpt: Daily. Up to 15,000′.
Stormville Arpt: Weekends and holidays. Up to 12,0

NORTH CAROLINA

Charlotte, Brockenborough Arpt: 5 mi N. Wed, Sat a Suns, beginning at 1200E. Up to 14,000′.
Erwin Arpt: Weekends.
Greensboro, Air Harbor Arpt: Weekends.
New River MCAF: On V157 1100–0300 daily from 23.5
Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point nmi E of arpt. Up to 13,500′.

OHIO

Bucyrus, Port Bucyrus Arpt: Weekends. Up to 12,500′.
Canton City Arpt: 2 NE Canton; 7 mi SE Akron Cant Arpt. Up to 16,000′ MSL.
Circleville: 5 mi NE. Sat and Sun 1600Z to SS. Up 12,000′.
Columbia Station Arpt: About 3 mi SW. Daily. Up to 85 AGL.
Columbus Mun Arpt: 17 mi SW. Evenings except Mon a Fri; weekends and holidays. Up to 10,000′ AGL.
Columbus Air Park: Weekends SR–SS. Week days e nings. Up to 25,000′.
Elyria, Nimrod Arpt: 2000Z thru 0300Z Mon thru F 1500Z thru 2400Z Sat and Sun. Up to 12,500′ AG
Fostoria, Snyder Arpt: Weekends and holidays. Intermi tently during the wk. Up to 12,000′ AGL.
Geneva, Germack Arpt: 3 mi SE Suns 1600Z–0200Z. Up 9,000′.
Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,5
Piqua Arpt: Up to 12,000′. Daily.
Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Wee ends. Up to 10,000′.
South Dayton Arpt: Up to 18,000′. Daily.
Springfield Arpt: Wed, Sat and Suns. Up to 12,500′.
Waynesville Arpt: Suns. Up to 10,000′.
Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.
Wilmington, Clinton Co AFB: NW corner adjt to rnwys. U to 2600′ MSL.
Xenia Arpt: Daily. Up to 20,000′.
Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio Tues, Thurs and weekends. Up to 13,000′.

OKLAHOMA

Oklahoma City, Richards Arpt: Weekends, holidays, o casionally weekdays. Up to 12,500′ AGL.
Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

storia, Clatsop Co. Arpt: Various alts. Holidays and weekends.

ove Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000' AGL.

edford Arpt: 4 mi W. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

rland: From various alts, moderate wkdays, hvy wkends and holidays. Jump sites 5 mi S of Hillsboro arpt: 3 mi S of Beaverton arpt; 3 mi E of Scholl Arpt, Orchards, Wash; and 7 mi NNE Scholl Arpt.

rland: ½ mi S of Scholl, Wash.

rland: 3 mi W of Aurora, Oreg.

dmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000'.

dmond, Roberts Fld: 3 mi S. Week ends. Up to 1500' AGL.

PENNSYLVANIA

mphelltown, Reigles Arpt: Daily. Up to 15,000'.

nleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500' MSL.

nsville NAF: Within 2 mi radius. Up to 13,000'.

eadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500'.

ew Hanover Arpt: Most activities weekends. Up to 12,500'.

dletown Arpt: Weekends. Up to 8000'.

ading, Gen. Spaatz Arpt: Weekends. Up to 10,000'.

RHODE ISLAND

reene Riconn Arpt: Daily. Up to 11,000'.

SOUTH CAROLINA

ifax Arpt: Weekends. Up to 12,500'.

e Arpt: Low level navigation and parachute drops every day and night, 300' to 1000'.

eeks Corner Mun Arpt: Weekends. Up to 10,000'.

rgeburg Mun Arpt: Weekends and holidays. Up to 12,500'.

mter Arpt: Daily 1800Z to sunset. From 7,200'. Sat, Sun, holidays. Up to 10,000'.

mmonsville, Huggins Arpt: Sat, Sun and holidays. From 10,000'.

terboro Mun Arpt: Weekends. From 10,000'.

TENNESSEE

attanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000'.

eveland, Hardwick Fld: 6 mi S. 0600 to 1900 EST 7 days per wk. Up to 12,500'.

shville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500'.

shville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

ri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000'.

TEXAS

Wilbur Dyess AFB: ½ mi W of rnwy. Up to 3300' MSL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000' MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200Z thru 0500Z and 1900Z thru 2300Z Sats and Suns. Up to 2040' MSL.

Cleburne Arpt: Weekends. Up to 7,500' MSL.

Ellington AFB: 5 mi S on 350°M. Up to 1500' MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500' MSL.

Ganado, Calaway Arpt: Weekends. Up to 10,000'.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000'.

Houston, Waller Arpt: Parachuting, gliding and ballooning within 5 mi radius. Daily, day and ngt. Up to 24,000'.

Lampasas Arpt: Weekends. Up to 14,000' MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000' MSL.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500'.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000' MSL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500'.

Taylor Mun Arpt: Weekends.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500' MSL.

Ogden: 8 mi N. Up to 12,000' MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000' MSL.

Wendover, Hill AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200' W of rnwy 14–32. Up to 6000' MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800' MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500'.

Swanton, Austin Arpt: Weekends. Up to 6000'.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000'. Occasional sky diving.

Clover Arpt: 3 mi radius. Suns. Up to 8,000'.

Forest, New London Arpt: Daily. Up to 11,000'.

Hopewell Arpt: Weekends. Up to 9000'.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340° radial. Weekends. Up to 12,500'. Occasional ngt jump.

Midland: 8 nmi from CSN VOR on 120° rad. Weekends. Up to 12,000'.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000'.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000'.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000'.

South Boston, Tuck Arpt: Within 3 mi radius. Suns 1200 to 1800 EST. Up to 10,000'.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000'.

Suffolk Mun Arpt: Weekends and holidays. Up to 12,000'.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000'.

West Point Arpt: Weekends and holidays. Up to 12,000'.

WASHINGTON

Enumclaw Arpt: Weekends and holidays. Up to 15,000′.

Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up to 7000′.

●**Larson AFB:** 1 mi from apch end of rnwy 21. Weekends and occasional ngt. Up to 1500′ AGL.

●**McChord AFB:** 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500′ MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 3 mi W SR to 1 hr after SS. Up to 12,500′ AGL.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

●**Holstein Arpt:** Weekends, SR–SS. Sat and Sun. Up 12,500′.

Juneau (Dodge Co Arpt): Weekdays after 1700 Sat a Sun afternoons. Up to 13,500′.

Lake Geneva/Natl Sports Parachuting Center: Daily. Up 15,000′.

Superior Arpt: 5 mi SE weekends SR–SS. Up to 12,500′

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru F Up to 12,500′ MSL.

Ossee: 3 mi W. Sundays. Up to 10,000′.

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402

Indicate Appropriate Section. Date .....

- ☐ Section I, Basic Flight Manual
- ☐ Section II, ATC Operations and Procedures
- ☐ Section III, Flight Data and Special Operations
- ☐ Section III–A, Notices to Airmen
- ☐ Section IV, Airport Directory
- ☐ Section IV–A, Airport/Facility Directory

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PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in ming their route of flight, to minimize route changes during the operal phase of flight, and to aid in the efficient orderly management of the traffic using federal airways. The preferred routings which follow are igned to serve the needs of airspace users and to provide for a system- flow of air traffic in the major terminal and en route flight environ- ts. Cooperation by all pilots in filing preferred routes will result in r traffic delays and will better provide for efficient departure, en route l arrival air traffic control service.

The following list will hereafter appear in EACH issue of the AIRGI. his list contains preferred routes for the low altitude stratum (below 000 feet MSL).

ow Altitude Structure—A distinctive numbering system (800 Series) has n introduced to indicate some of the preferred routes in this stratum ll thereby eliminate the present lengthy route descriptions. Many of preferred routes, however, retain the common basic airway numbers ate the two systems of numbering in combination. Additional designa s of "800 Series Airways" will be made where simplicity and con- ience to both pilots and controllers dictate such assignments.

Preferred Route Starting and Terminating Fixes—Preferred routes gen- erally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Survey, are the normal routes between the airport and the preferred route starting/ terminating fixes. Whenever a fix is shown in **bold-face** type, pilots should refer to the appropriate Area Chart for the routing he may expect prior to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate tha the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

BANY

Boston..... V2 **GDM** (L–25)
Kennedy..... V91 V475 **DPK** (L–25)
La Guardia..... V91 V1 V123 **Stamford** (L–25)
Newark..... V489 IGN SAX SAX 205 rad **Budd Lake** (L25)

BUQUERQUE

Denver..... **ADEN** V19W SAF V83 PUB V19E **IOC** (L–4, 6)
Kansas City..... **Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L–6)
Los Angeles..... **GNT** V12 EED V208 TNP V264S **GNT.** (L–4, 3)
Phoenix..... **GNT** V190N SJN V190 Lake. (L–4)

LANTA METRO AREA

Birmingham..... **Newman** V20N V66 V115 Lewis (L–20, 14)
Cincinnati..... Crabapple V97 **Dry Ridge** (L–20, 22)
Charlotte..... **Conyers** V66 FML (L–20)
Chicago..... **Crabapple** V51 **CGT** (L–14, 20, 21, 23)
Dallas..... **Newman** V20N V66 TCL V18N MEI V18 MLU V94 V477E **Forney** (L–20, 18, 17, 13)
Dulles Intl..... **Conyers** V66 FML V454 LVL V155 GVE V39 **CSN** (L–20, 22)
Houston..... **Newman** V20N V66 TCL V18N MEI V194 MCB V222 LCH V222N **Monument** (L–20, 14, 18, 17, 15)
Kennedy..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 (L–20, 22, 24)
Jacksonville..... **Griffin** V243 AYS V243W **Callahan** (L20, 18)
La Guardia..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 **JFK** (L–20, 22, 24)
Memphis..... **Newman** V20N V66.V115 BHM V176N HLI (L–20, 14)
Miami..... **Brooks** V843 **MIA** (L–20, 18, 19)
Newark..... **Conyers** V66 FML V454 V157 V20 V213 V29 V433 **Rocky Hill** (L–20, 22, 24)
●Orlando..... **Griffin** V243 AYS V157 OCF V159W **Clermont** (L20, 18, 19)
Pittsburgh..... **Crabapple** V97 TYS V115 PKB V119 **HLG** (L–20, 22, 24)
Tampa..... **Brooks** V843 HOMO V35E **Hazel** (L–20, 18, 19)
Washington..... **Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta..... ANB V18 **Sargent** (L–14, 20)
New Orleans..... TCL V875 **Madison** (L–14, 18, 17)
Pittsburgh..... GAD V115E CHA V115 PKB V119 **HLG** (L–14, 22, 24)

BOSTON METRO AREA

Albany..... V14 Melrose (L–25)
Buffalo..... V14 Bellona V31 ROC V142 **Grant** (L–25)
Cleveland..... V14 ALB V72 Hadley V232 **Mentor** (L–25, L–24)
Kennedy..... **PUT** V879 **DPK** (L–25)

BOSTON METRO AREA—Continued

La Guardia	**Millbury** V875 V157 **Stamford** (L–25)
Newark	**Millbury** V875 V251 SAX SAX 205 rad **Budd Lake** (L–25, 24)
Philadelphia	**Millbury** V875 **Warrington** (L–25, 24)
Rochester	V14 Bellona V31 Fishers (L–25)
Washington	**PUT** V888 **North Beach** (L–25, 24)

BUFFALO METRO AREA

Boston	**GEE** V14 **GDM** (L–12, L–25)
Cleveland	**Langford** V464 DKK V14 **Mentor** (L–12, 24)
Detroit	V2 QO V90N Dolphin V90 **QG** (L–12, 23)
Kennedy	V252 BGM V270 V34 V475 **DPK** (L–12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 **Liberty** (L–12, 25)
Midway	V84 LAN V218 **Surf** (L–12, 23)
Newark	V252 GEE V147 ELM V36 AVP V153 **BUDD LAKE** (L–12, 25)
O'Hare	V84 **OBK** (L12, 23)
Philadelphia	V33 HAR V12 **ESR** (L–12, 24)
Pittsburgh	V115 **EWC** (L–12, 24)
Washington	V33 HAR V265 **Clarksville** (L–12, 24)

CHARLESTON, W. VA.

Cincinnati	V128 YRK V128S **Grants Lick** (L–22)
Cleveland	V115 PKB V839 **Sharon** L–22, 24, 23)
Columbus	V133 V214 Hanover (L–22, 23)
Louisville	V128 YRK V44 FLM V502 (L–22, 21)
Pittsburgh	V115 PKB V119 **HLG** (L–22, 24)
Washington	V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta	FML V194 Homer V20N **OCR** (L20)
Cleveland	Moorseville V37 PSK V839 **Sharon** (L–20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L–20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 **JFK** (L–20, 22, 24)
Miami	FML V37 ALD V157 LAL V843 **Cypress** (L–20, 18, 19)
Washington	New London V454 LVL V157 **Ironsides** (L–20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	**EON** V843 **Kennesaw** (L–23, 21, 14, 20)
Denver	**Malta** V846 (L–23, 6, 8)
Detroit City	V100 V218 Plains V42 **Troy** (L23)
Dulles	**EON** V853 **HRN** (L–23, 22)
Kennedy	V6 SEG V810 **RBV** (L–23, 24)
Indianapolis	**EON** V128 (L–23)
La Guardia	V6 V433 **Liberty** (L–23, 24)
Los Angeles	**Malta** V846 DEN V8 (L–23, 6, 8, 3)
Memphis	**Big Run** V173 CAP V9 **Kerrville** (L–23, 21, 14)
Miami	**EON** V843 (L–23, 21, 14, 18, 19)
Minneapolis	V855 **FGT**; or V172 V129 RWY V855 **FGT** (L–23, 11, 10)
Newark	V6 SEG V30 **Rocky Hill** (L–23, 24)
Philadelphia	V6 V30 PSB V33 HAR V12 **ESR** (L–23, 24)
Pittsburgh	V6 V103 ACO V297 **EWC** (L–23)
San Francisco	**Malta** V854 (L–23, 11, 8, 7, 2)
St. Louis	**Big Run** V191 V426 **Godfrey** (L–23, 21)
Tampa	V843 Home V35E **Hazel** (L–23, 21, 14, 20, 18, 19
Tulsa	V845 EOS V14 (L–23, 6, 14)
Washington	**EON** V853 **HRN** (L–23, 22)

From Midway only

Cleveland	**Crib** V6 V232 **Vermilion** (L–23)
Des Moines	**API** V8 CVA V233 CID V846 **TNU** (L–23, 11)
Kansas City	**API** V10 **Kearney** (L–23, 11, 21)
Metro Wayne Co	V10 **Dundee** (L–23)
Omaha	**API** V8 CVA V233 CID V846 EOL (L–23, 11)
Willow Run	**Crib** V10 LFD V90 (L–23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 **Vermilion** (L–23)
Des Moines	V172 **TNU** (L–23, 11)
Kansas City	V84 BDF V10 **Kearney** (L–23, 11, 21)
Metro Wayne Co	V100 Leroy V30 LFD V10 **Dundee** (L–23)
Omaha	V172 PLL V846 EOL (L–23, 11)
Willow Run	V100 V30 V90 (L–23)
Windsor	V100 V218 **Plains** (L–23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 **OCR** (L–21, 22, 20)
Charleston, W. Va	V128 (L–21, 22, 20)
Chicago	V97 **CGT** (L–21, 23)
Detroit (City)	V275 VWV V47 **SVM** (L–21, 23)
Indianapolis	V97 (L–21, 23)
La Guardia	V128 YRK V44 MGW V106 SEG V6 V433 Lib (L–22, 24)
Louisville	V47 ABB V51 (L–21)
Metro Wayne Co	V275 VWV V47 **Dundee** (L–21, 23)
Miami	V47 ABB V51 CSV V51W CHA V843 **Cypress**, or V ATL V843 **Cypress** (L–21, 22, 20, 18, 19)
Newark	V128 YRK V44 MGW V106 V30 **Rocky Hill** (L–22,
Pittsburgh	V128 YRK V44 PKB V119 **HLG** (L–22, 24)
St. Louis	V47 ABB V44 ENL V4 **TOY** (L–21)
Willow Run	V275 VWV V47 **Dundee** (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 **GDM** (L–23, 12, 25)
Buffalo	V14N **Crystal Beach** (L–23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L–23, 22, 20)
Chicago	V126 CGT V7 **Niles** (L–23)
Columbus	V443 TVT V43 APE (L–23)
Dayton	V14 ATO V435 ROD (L–23)
Detroit (City)	V42E QG V90 (L–23)
Kennedy	**ACO** V30 SEG V810 **RBV** (L–24)
Indianapolis	**CLE** V14 (L23)
La Guardia	**ACO** V30 CIP V6 Amboy V433 **Liberty** (L–24)
Metro Wayne Co	V42E V10 **CRL** (L–23)
Miami	V881 **Cypress** (L–22, 20, 18, 19)
Newark	**ACO** V30 **Rocky Hill** (L–24)
Philadelphia	**ACO** V30 PSB V33 HAR V12 **ESR** (L–24)
Pittsburgh	**ACO** V297 **EWC** (L–24)
Rochester	V14N ERI V14 BUF V2 Clifton (L–23, 24, 12)
Washington	**ACO** V103 IRL V37 Millsboro V92 FRR V4 HRN (L–24)
Willow Run	V42E QG V90 (L–23)

OLUMBUS

Charleston, W. Va.	APE V38 V133 (L–23, 24, 22)
Indianapolis	Grindell V210 (L–23)
La Guardia	APE V802 V6 V433 **Liberty** (L–23, 24)
Pittsburgh	APE V12 **HLG** (L–23, 24)
St. Louis	V12N V210 VLA V14N **Godfrey** (L–23, 21)
Toledo	V38 FDY V47 (L–23)
Washington	APE V144 ESL V4 **HRN** (L–23, 24)

ALLAS/FT. WORTH METRO AREA

Amarillo	**Lakeside** V114 Claude (L–13)
Atlanta	**DAL** V278 BHM V18N V18 **Sargent** (L–13, 14, 20)
Dulles Intl	V830 MOL V251 **FRR** (L–13, 14, 21, 22)
El Paso	**Joshua** V94 INK V16 **RIO** (L–13, 4)
Houston	**Trinity Fork** V477 LOA V477W **Fairbanks** (L–13, 17)
Los Angeles	**Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L–13, 4, 3)
Memphis	**DAL** V830 PBF V16N Round Pond (L–13, 14)
Midway	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
New Orleans	**DAL** V114 **French** (L–13, 17)
O'Hare	**DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
San Antonio	**Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L–13, 15)
Tulsa	**DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L–13, 6)
Washington	**DAL** V830 **Ironsides** (L–13, 14, 21, 22)

AYTON

Chicago	DAY 001 Radial V277 FWA V55 V422 **CGT** (L–23)
Cleveland	V275 FDY V8 MFD V246 **Sharon** (L–23)
Detroit (City)	V275 FDY V47 **SVM** (L–23)
La Guardia	V802 V6 V433 **Liberty** (L–23, 24)
Metro Wayne Co./ Willow Run	V275 FDY V47 **Dundee** (L–23)
Oklahoma City	DAY V50N IND V210 STL V14 TUL V14N **Stillwater** (L–23, 21, 6)
Washington	V12 APE V144 ESL V4 **HRN** (L–23, 24)

ENVER METRO AREA

Chicago	**DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L–8, 11, 23)
Kennedy	**DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L–8, 11, 23, 24)

ETROIT METRO AREA

Kennedy	V221 ERI V810 SEG V30 ETX **RBV** (L–12, 24)
From City and Windsor only	
Newark	V221 ERI V810 SEG V30 **Rocky Hill** (L–12, 23, 24, 28, 25)
Philadelphia	V221 ERI V116 BFD V33 HAR V12 **ESR** (L–12, 24)
Ft. Wayne	**SVM** V170 Leslie V45 JXN V221 (L–23)
Midway	**SVM** V170 V84 V7E V116 (L–23)
Milwaukee	**SVM** V170 PMM V30S **Pike** (L–12, 23)
O'Hare	**SVM** V170 V84 **OBK** (L–23)
From Metro or Willow Run only	
Buffalo	V221 V90 V14N **Crystal Beach** (L–12)
Cleveland	**Crest** V297 **Vermilion** (L–23)
Ft. Wayne	**Dexter** V221 (L–23)
Midway	**Pinekney** V170 V84 V7E V116 (L–12, 23)
Milwaukee	**Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L–12, 23)
O'Hare	**Pinekney** V170 V84 **OBK** (L–12, 23)
Pittsburgh	**Crest** V133 BAY V6 V42 ACO V297 **EWC** (L–23,24)
Rochester	V221 V90 V14 V2 (L–12)
Washington	**Crest** V133 ZZV V144 ESL V4 **HRN** (L–23, 24)

EL PASO

Dallas	**HUP** V66 MAF V16S BGS V16 ABI V66 Denton V114 **Lakeside** (L–4, 13)
Los Angeles	**EWM** V94 GBN V461 BXK V16 **ONT** (L–4, 3)
San Antonio	**HUP** V198 **Boerne** (L–4, 15)

HAVANA

Miami	Balboa drct MTH drct Sable B19 **PRR** (L–19)

HOUSTON METRO AREA

Atlanta	**LaPorte** V20S LCH V20 LFT V70 EVR V20 **Tyrone** (L–17, 18, 14, 20)
Dallas	**Gulf Coast** V477E **Forney** (L–17, 13)
New Orleans	**LaPorte** V20S LCH V20 **Turtle** (L–17)
San Antonio	**Andrau** V222 **Hunter** (L–17, 15)

INDIANAPOLIS

Detroit	V11 **SVM** (L–23)
Evansville	V11W SCJ V11E (L–21)
Kennedy	V50 DAY V12 V162 V810 **RBV** (L–23, 24)
La Guardia	V50 DAY V802 V6 V433 **Liberty** (L–23, 24)
Metro Wayne Co.	V11 V10 **Dundee** (L–23)
Midway	V97W V97 **CGT** (L–23)
Newark	V50 DAY V802 V30 **Rocky Hill** (L–23, 24)
Pittsburgh	V50 DAY V12 **HLG** (L–23, 24)
St. Louis	V14 VLA V14N **Godfrey** (L–21)
Willow Run	V11 V10 **Dundee** (L–23)

JACKSONVILLE

•Atlanta	**Kings** V5E DBN V5 **MDU** (L18, 20)
Dulles Intl	**Clinch** V3E SAV V3 RDU V155 GVE V39 **CSN** (L–18, 20, 22)
Kennedy	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L–18, 20, 22, 24)
LaGuardia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **JFK** (L–18, 20, 22, 24)
Miami	**Blue Jacket** V267 **New River** (L–19)
Newark	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L–18, 20, 22, 24)
Norfolk	**Clinch** V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN (L–18, 20, 22)
Orlando	**Blue Jacket V267** Woodruff (L–18, 19)
Philadelphia	**Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L–18, 20, 22, 24)
Washington	**Clinch** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L–18, 20, 22)

KANSAS CITY METRO AREA

Midway..... **Excelsior** V116 **JOT** (L–21, 23)
O'Hare..... **Excelsior** V116 **JOT** (L–21, 23)
St. Louis..... **BSP** V12 **MTS** (L–21)
Wichita..... **Bonner Springs V12** De Graff (L–6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia..... V4 CRW V106 SEG V6 V433 **Liberty** (L–21, 22, 24)
Newark..... V4 CRW V106 V30 **Rocky Hill HIll** (L–21, 22, 24)

MEMPHIS

Atlanta..... HLI V176 BHM V18N V18 **SARGENT** (L–14, 20)
Dallas..... **Eudora** V16S PBF V887 **DAL** (L–14, 13)
Dulles Intl..... **Moscow** V16S GHM V830 V251 **FRR** (L–14, 21, 22)
Midway..... Cuba V9W V9 **JOT** (L–14, 21, 22)
New Orleans..... **Arkabutla** V9W GRW V9 **MADISON** (L–14, 17)
O'Hare..... Cuba V9W V9 **JOT** (L–14, 21, 23)
Washington..... **MOSCOW** V16S GHM V830 **IRONSIDES** (L–14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

•Atlanta..... **MIA** V35 V7 LAL V157 AMG V51 DBN V5 (L19, 18, 20)
Charlotte..... **MIA** V35 V7 LAL V157 ALD V37 FML L–19, 18, 20)
Chicago..... **MIA** V35 FMY V819 DBN V267 TYS V97 **CGT** (L–19, 20, 22, 21, 23)
Cleveland..... **MIA** V839 (L–19, 20, 22, 21, 23)
Detroit (City)..... V839 CLE V42 **QG** (L–19, 20, 22, 21, 23)
Dulles Intl..... **GUPPY** Direct HALIBUT Control 1150 ILM V157 LVL V155 GVE V39 **CSN** (L–19, 20, 22)
Habana..... **Gary** V51 EYW drct SF/Rbn; or PRR/Rbn drct Leon drct EYW drct SF/Rbn (L–19)
Kennedy..... **Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L–19, 20, 22, 24)
Jacksonville..... **Martin** V3E PBI V3 DAB V3E **Shiloh** (L–19)
La Guardia..... **Guppy** drct Halibut Control 1150 ILM VIW V213 **JFK** (—19, 20, 22, 24)
Metro Wayne Co... V839 CLE V42 V10 **CRL** (L–19, 20, 22, 24, 23)
Newark..... **Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L–19, 20, 22, 24)
Pittsburgh..... **MIA** V35 V7 LAL V157 ALD V37 **AGC** (L–19, 20, 22, 24)
Tampa..... **MIA** V35 **Hanson** (L–19)
Washington..... **Guppy** drct Halibut Control 1150 ILM V157 **Ironsides** (L–19, 20, 22)
Willow Run..... V839 CLE V42 **QG** (L–19, 20, 22, 24, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago..... V9 **API**; or **Taylor** V7E V116 **Surf** (L–12, 23)
Detroit..... V2S MKG V2 **SVM** (L–12)
Kennedy..... V2S MKG V2 SVM V116 QG V810 SEG V30 ETX **RBV** (L–12, 23, 24)

MINNEAPOLIS METRO AREA

Midway..... **Prescott** V2 V97 V171 V6 **API** (L–10, 11, 23)
O'Hare..... **Prescott** V2 V97 **Lakewood** (L–10, 11, 23)

MONTGOMERY

Washington..... **TQE** V154 MCN V56 AGS V155 V157 **Ironsides**; **Martin** V837 **Ironsides** (L–10, 20, 22)

NASHVILLE

La Guardia..... **Freedom** V140N LOZ V830 GVE V837 ENO V4 **JFK** (L–21, 22, 24)
Newark..... **Freedom** V140N LOZ V830 GVE V837 ENO V29 V4 **Rocky Hill** (L–21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta..... **PCU** V837 **Tyrone** (L–17, 18, 20)
Birmingham..... **PCU** V455 MEI V18 Abernant (L–17, 18, 14)
Dallas..... **Walker** V–114N AEX V–114 **GGG** V–94 V–4 **Forney** (L–17, 13)
Dulles Intl..... **PCU** V837 GVE V39 **CSN** (L–17, 18, 20, 22)
Houston..... **TBD** V20S LFT V20 LCH V222N **Monument** (L–
Kennedy..... **PCU** V837 SBV V20 V213 ENO V44 **BGT** (L–17, 20, 22, 24)
Memphis..... **PCU** V9E MCB V9 GRW V9E **Independence** (L–1
Newark..... **PCU** V837 SBV V20 V213 ENO V29 V433 **Rocky H** (L–17, 18, 20, 22, 24)
Washington..... **PCU** V837 **Ironsides** (L–17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany..... **Sound** POU V487 Brainard (L–25)
Bradley..... **Sound** BDR BDR 020 radial Tamie (L–25)

From Newark only

Albany..... **SAX** POU V487 Brainard (L–25)
Atlanta..... **SBJ** V875 MOL V143 V222 V35 V20N **OCR** (L–22, 20)
Baltimore..... **SBJ** V875 V93 (L–24)
Boston..... **SAX** POU V861 Sterling (L–25)
Bradley..... SAX IGN IGN 096 radial Tamie
Buffalo..... **TVE** V188 V147 V36 **Dale** (L–25)
Cincinnati..... **SBJ** V875 V166 V4 V174 V128S **Grants Lick** (L–22)
Cleveland..... **TVE** V232 **Mentor** (L–24, 23)
Detroit (City)..... **TVE** V188 V103 **QG** (L–24, 23)
Detroit Metro Area.. **SAX** V880 **QG** (L–24, 23)
Dulles Intl..... **SBJ** V875 EMI V166 V223 **Sugar Loaf** (L–24)
Indianapolis..... **TVE** V232 V804 (L–24, 23)
Jacksonville..... **SBJ** V875 V29 SWL V139 V1 V437 SAV V3 **St. Mar** (L–24, 22, 20, 18)
Louisville..... **SBJ** V875 V166 V4 V174 V44 FLM V502 (L–24, 22.
Metro Wayne Co... **TVE** V188 **CRL** (L–24, 23)
Miami..... **SBJ** V3 V29 SWL V139 CCV V1 Control 1150 St. geon drct Tarpon drct PBI V159E **Oakland** (L–22, 20, 19)
Nashville..... **SBJ** V875 MOL V887 HIY V140S **Sharp Spri** (L–24, 22, 14)
New Orleans..... **SBJ** V875 **Madison** (L–24, 22, 20, 14, 18)
Norfolk Metro Area.. **SBJ** V875 V29 SWL V139 CCV (L–24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia..... **SBJ** V875 **Warrington** (L-24)
Pittsburgh..... **TVE** V232 ETG V226 **EWC** (L-24)
Providence..... **SAX** POU V861 V130 Lafayette (L-25)
Rochester..... **SAX** V807 Fishers (L-25)
Syracuse..... **SAX** V483 (L-25)
Toledo..... **TVE** V232 Mentor V126 (L-24, 23)
Washington..... **SBJ** V875 ESR ESR 244 rad **Clarksville** (L-24)
Willow Run..... **TVE** V188 V103 **QG** (L-24, 23)

From Kennedy only

Atlanta..... **Dutch** V888 V213 V20 SPA V20N **OCR** (L-24, 22, 20)
Baltimore..... **Dutch** V888 V44 (L-24)
Boston..... HTO V837 **HTM** (L-25)
Buffalo..... **HUO** V126 V36 **Dale** (L-25)
Cleveland..... **HUO** V126 V58 V226 V232 **Mentor** (L-25, 24, 23)
Detroit (City)..... **HUO** V126 V880 **QG** (L-25, 24, 23)
Dulles Int'l..... **HUO** TVE V39 V162 HAR V223 **Sugar Loaf** (L-25, 24)
Europe..... HTO V46 (L-25)
Jacksonville..... **Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville..... **HUO** TVE V39 V251 V166 V4 V174 V44 FLM V502 (L-25, 24, 22, 21)
Metro Wayne Co... **HUO** V126 BFD V72 V188 **CRL** (L25, 24, 23)
Miami..... **Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal..... **Sound** POU V487 (L-25, 26)
New Orleans..... **Dutch** V888 V16 ROA V875 **Madison** (L-24, 22, 20, 14, 18, 17)
Norfolk Metro Area.. **Dutch** V139 CCV (L-24, 22)
O'Hare..... **HUO** V126 AVP V880 **OBK** (L-25,24, 23)
Philadelphia..... **Dutch** CYN V140 V239 **OOD** (L-24)
Pittsburgh..... **HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence..... HTO V837 (L-25)
Rochester..... **HUO** V249 V34 Fishers (L-25)
Syracuse..... **HUO** V483 (L25)
Toronto..... **HUO** V126 AVP V36 (L-25, 12)
Washington..... **Dutch** V888 **North Beach** (L-24)
Willow Run..... **HUO** V126 BFD V72 V188 V103 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta..... **Paterson** V875 MOL V143 V222 V35 V20N **OCR** (L-24, 22, 20)
Baltimore..... **Paterson** V875 V93 (L-24)
Boston..... Sound V863 (L-25)
Buffalo..... **SAX** V36 **Dale** (L-25, 12)
Cincinnati..... **Paterson** V875 V166 V4 V174 V128S **Grants Lick** (L-24, 22)
Cleveland..... **SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus..... **SAX** TOH V804 V119 V214 Hanover (L-24, 23)
Detroit (City)..... **SAX** V880 **QG** (L-24, 23)
Dulles Intl..... **Paterson** V875 EMI V166 V223 **Sugar Loaf** (L-24)
Indianapolis..... **SAX** TOH V804 (L-24, 23)
Louisville..... **Paterson** V875 V166 V4 V174 V44 FLM V502 (L-24, 22, 21)
Montreal..... **Sound** POU V487 (L-25)
Metro Wayne Co... **SAX** V880 V14N V188 **CRL** (L-24, 23)
Nashville..... **Paterson** V875 MOL V887 HIY V140S **Shop Spring** (L-24, 22, 21)
O'Hare..... **SAX** V880 **OBK** (L-24, 25)
Philadelphia..... **Paterson** V875 **Warrington** (L-24)
Pittsburgh..... **SAX** TOH V804 ETG V226 **EWC** (L-24)
Providence..... **Sound** V863 V130 Lafayette (L-24, 25)
Rochester..... **SAX** V807 Fishers (L-25)
Toronto..... **SAX** V36 (L-25, 12)
Washington..... **Paterson** V875 ESR ESR 244 rad **Clarksville** (L-24)
Willow Run..... **SAX** V880 V14N V188 V103 **QG** (L-24, 23)

NORFOLK METRO AREA

Charlotte..... CVI V194 Midland (L-22, 20)
Dulles Intl..... Farnham V285 **CSN** (L-22)
Kennedy..... CCV V1 **BGT** (L-22, 24)
Jacksonville..... CVI V805 **St. Marys** (L-22, 20, 18)
LaGuardia..... CCV V1 SBY V29 ENO V213 **JFK** (L-22, 24)
Newark..... CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia..... CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond..... HCM V156 (L-22)
Washington..... Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton..... **Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-6' 21, 23)
Wichita..... **Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta..... Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville..... Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore..... **EWT** V166 V93 (L-24)
Boston..... MIV 100 rad V837 **HTM** (L-24, L-25)
Buffalo..... **Reinholds** V170 SLT V501 ELZ V119 Burns V36 **Dale** (L-25)
Cleveland..... **Reinholds** V162S HAR V12 AGC V8 BSV V40 **Sharon** (L-24, 23)
Detroit (City)..... **Reinholds** V162S V12 V37 V103 V42 **QG** (24, 23)
Dulles Intl..... **EWT** 300 rad V875 EMI V166 V223 **Sugar Loaf** (L-24)
Kennedy..... **Columbus** V123 **RBV** (L-24)
Jacksonville..... **MIV** 180 rad V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
LaGuardia..... **Columbus** V213 **JFK** (L-24)
Metro Wayne Co... **Reinholds** V162S V12 V37 V103 V42 V10 **CRL** (L-24, 23)
Miami..... **MIV** 180 rad V139 CCV V1 Control 1150 Sturgeon drct Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark..... V433 **Rocky Hill** (L-24)
Norfolk Metro Area.. **MIV** 180 rad V139 CCV (L-24, 22)
Pittsburgh..... **Reinholds** V162S V12 (L-24)
Rochester..... **Reinholds** V170 V31 Fishers (L-24, 25)
Washington..... EWT V166 EMI V3 V8 (L-24)
Willow Run..... **Reinholds** V162S V12 V37 V103 V42 **QG** (L-24, 23)

PHOENIX

Albuquerque..... **Lake** V190 Suwanne (L-4)
El Paso..... V105 CZG V94 SSO V198 **Harrington Ranch** (L-4)
Kansas City..... V190 DHT V234 HUT V280 TOP V4N **Farley** (L-4, 6)

PITTSBURGH METRO AREA

Buffalo..... V37 EWC V115 (L-24, 12)
Cleveland..... V40 **Sharon** (L-23, 24)
Philadelphia..... **CLN** V210 V12 **ESR** (L-24)
Willow Run..... V40 CLE V26 **Park** (L-24, 23)

From Greater Pittsburgh only

Atlanta..... V103 Finley V115 TYS V267 **OCR** (L-24, 22, 20)
Baltimore..... V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston..... **Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston, W. Va. V103 Finley V115 PKB V59 V106 (L-24, 22)
Chicago..... V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus..... V103 Wolfdale V214 (L-24, 23)
Detroit..... V40 CLE V26 **Park** (L-24, 23)
Kennedy..... V119 V276 **RBV** (L-24)
Indianapolis..... V210; or **Kilgore** V210 (L-24, 23)
LaGuardia..... V119 V276 Reedsville V802 V6 V433 **Liberty** (L-24)
Newark..... V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia..... **CLN** V210 HAR V12 **ESR** (L-24)
St. Louis..... **Kilgore** V210 VLA V14N **Godfrey** (L-23, 21, 6)
Washington..... V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago..... **AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy..... V802 Reedville V276 **RBV** (L-24)
La Guardia..... V802 SEG V6 V433 **Liberty** (L-24)
Newark..... V12 HAR V162 V30 **Rocky Hill** (L-24)

PROVIDENCE

Kennedy..... V167 V16 V879 **DPK** (L-25)
LaGuardia..... V167 V875 V157 **Stamford** (L-25)
Newark..... V167 HFD V251 SAX SAX 205 rad **Budd Lake** (L25)

PORTLAND

Seattle..... V23 **Rainier** (L-1)

RICHMOND

Philadelphia..... V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore..... V147 ELM V31 (L-25, 24)
Boston..... Fishers V31 Bellona V14 **GDM** (L-25)
Detroit..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
Kennedy..... V147 GEE V252 BGM V270 V34 V475 **DPK** (L-25)
LaGuardia..... V147 ABE V6 V433 **Liberty** (L-25)
Newark..... V147 ELM V36 AVP V153 **Budd Lake** (L-25)
Philadelphia..... V147 ABE ABE 160 rad V3 **Warrington** (L-25, 24)
Washington..... V147 ELM V31 HAR V265 **Clarksville** (L-25, 24)
Willow Run..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)

SAN ANTONIO

Dallas..... **Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso..... **Guadalupe** V222 **Rio** (L-15, 4)
Houston..... **Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO

Chicago..... **LIN** V810 (L-2, 5, 7, 8, 11, 23)

SAN FRANCISCO/OAKLAND METRO AREA

Chicago (ORD).... **LIN** V810 **Lakewood** (L-2, 5, 7, 8, 11, 23)
From San Francisco only
Burbank/Los Angeles. **Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2,
Kennedy..... **LIN** V810 OBK V84 LAN V2 SVM V116 ERI V1 V276 **RBV** (L-2, 5, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland..... **TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V2 **Sharon** (L-21, 23)
Columbus..... **TOY** V12 (L-21, 23)
Dallas..... V14 EOS V845 **Gainesville** (L-21, 6, 13)
Ft. Worth..... V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis..... **TOY** V12 Wilbur V11 (L-21, 23)
Kansas City..... V4 **Missouri City** (L-21)
Memphis..... V9 Kerrville (L-21, 14)
Midway/O'Hare... V9 **JOT** (L-21, 11, 23)
Tulsa..... V14 (L-21, 6)
Washington..... **TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

Kennedy..... V273 HNK V34 V475 **DPK** (L-25)
LaGuardia..... V153 V29 V6 V433 **Liberty** (L25)
Newark..... V153 **Budd Lake** (L-25)

TAMPA METRO AREA

Atlanta..... **V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami..... **Gibson** V97 **MIA** (L-19)

TORONTO

LaGuardia..... V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago..... V14 SGF V63 V116 **JOT** (L-6, 21, 11, 23)
Dallas..... OKM V845 **Gainesville** (L-6, 13)
Dayton..... V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis..... V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis..... V140 FYV V72 V9 **Lenny** (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston..... **Rock Hall** drct ENO V837 **HTM** (L24, L-25)
Chicago..... Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland..... Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville..... **BRV** V3 **St. Marys** (L-22, 20, 18)
Kennedy..... **Rock Hall** V123 **RBV** or Rock Hall V140 V238 V **BGT** (L-24)
LaGuardia..... **Rock Hall** V123 RBV V213 **JFK** (L-24)
Newark..... **Rock Hall** V433 **Rocky Hill** (L-24)
Philadelphia..... **Rock Hall** V123 **OOD** (L-24)
Pittsburgh..... Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta..... **CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L-22, 20)

ASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Charleston, W. Va.	**CSN** V143 V156N V174 V4 (L-22)
Charlotte	**BRV** V3 RDU V194 Weddington (L-22, 20)
Dallas	**CSN** V887 **DAL** (L-22, 21, 14, 13)
Greensboro	**CSN** V140 MOL V143 Leaksville (L-22)
Harrisburg	**Ashburn** V8N V223 (L-24)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 19)
Memphis	**CSN** V887 Fisherville (L-22, 21, 14)
Miami	**BRV** V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Nashville	**CSN** V887 LOZ V140S **Sharp spring** (L-22, 21)
New Orleans	**CSN** V875 **Madison** (L-22, 20, 14, 18)
Norfolk Metro Area	**BRV** V286 Tappahannock V213 HPW (L-22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L-24)
Jacksonville	V39E GVE V155 FAK V3 **St. Marys** (L-24)
LaGuardia	**EMI** V166 EWT V157 RBV V213 **JFK** (L-24)
Miami	V39E GVE V155 FAK V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**MRB** V251 V12 **ESR** (L-24)

WICHITA

Oklahoma City	Mayfield V77 PNC V77E **Stillwater** (L-6)
Kansas City	White Water V77 TOP V4N **Farley** (L-6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

(Explantory information is provided in Section II–8)

CALIFORNIA

Fresno Air Terminal

In narrative form only

PINEDALE ONE DEPARTURE

Via direct Fresno VORTAC, then via (transition) or (assigned route). Castle Transition—Via Fresno 273 and Castle 150 radials to Castle VOR.

BOWLES ONE DEPARTURE

Via direct Fresno radio Beacon: then a 135 magnetic bearing from the Fresno radio beacon to intercept the Los Banos 084 radial at or above 3,000 feet; then via Los Banos 084 radial to the Fresno 141 radial. Pixley Transition—Turn right via Fresno 141 and Bakersfield 322 radials to Bakersfield. Exeter Transition—Continue via Los Banos 084 radial to intercept and proceed via Fresno 123 and Portersville 323 radials to Porterville.

Ontario Intl Airport

Effective February 4, 1965

Colton One Departure—Change name to read: Colton Three Departure. College One Departure—Change name to read: College Three Departure.

CONNECTICUT

•Bradley Field, Windsor Locks

Narrative form only

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeepsie VOR 089 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 357 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD THREE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 100° radial to V16, V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure: Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MADISON THREE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via 360° radial Hartford VOR to Hartford VOR; thence direct Madison VOR; thence V475 to Deer Park VOR. Maintain at or below 3,000 f for 3 minutes after departure; Cross Madison VOR (as assigned by ATC), thence via (assigned route).

HARTFORD THREE DEPARTURES

Via direct Hartford VOR. Hartford VOR 258 rad to Yale Intersection. Cross Madison VOR 360 radial or below 4,000 feet. Cross Yale Intersection at (as signed by ATC), then via (assigned route).

Concurrently cancel Avon One. Stafford Two, Madi Two, Hartford Two Departures.

NEW YORK

Hancock Airport, Syracuse

In narrative form only

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown V 352 radial to Georgetown VOR; cross Syracuse ILS LC at 2,000 feet; cross Utica VOR 277 radial at 5,000 fe Then via (assigned route). Take-off Runway 14—Tu left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 3 radial to West Monroe Intersection, cross Syracuse I LOM at 2,000 feet. Then via (transition) or (assig route). Florence Transition—Via Syracuse VORTAC radial and V145 to Utica VOR. Syracuse Transition—V Syracuse VORTAC 050 radial to Syracuse VORT Pulaski Transition—Via Georgetown VOR 352 radial a V29 to Pulaski Intersection. Take-off Runway 14—Tu left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt.

In narrative form only

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood C VORTAC 302 radial. Cross Akron VORTAC 084 rad at 3000 or above. Then via Ellwood City VORTAC radial to the Ellwood City VORTAC. Cross Ellw City VORTAC (as assigned by ATC), then via assig route.

Departing aircraft shall be established on the Youn town VOR 197 radial within 10 miles of the Youngsto VOR.

RHODE ISLAND

T. F. Green Arpt., Providence

In narrative form only

WARWICK ONE DEPARTURE

Takeoff Rnwy 5L/R-34—turn right to 160 heading as n as practicable after leaving 500'. Climb on 160 head- ; to intercept Quonset Pt. VOR 038 radial. Takeoff wy 16—Maintain rnwy heading to intercept Quonset . VOR 038 radial. Takeoff Rnrwy 23L/R—Turn left 90 heading as soon as practicable after leaving 500'. mb on 090 heading to intercept Quonset Pt. VOR 038 lial. Radar vector to Providence VOR 132 radial to onset Pt. VOR 038 radial to Quonset Pt. VOR thence Quonset Pt. VOR 218 radial to V-46. Cross Quonset . VOR at 5000' or below. Cross Norwich VORTAC 124 lial at 7000'. Cross Hampton VORTAC 082 radial (as signed by ATC) then via (assigned route).

STERLING TWO DEPARTURE

Takeoff Runway 34-5L/R—turn left to 250 heading as n as practicable after leaving 500 feet. Climb on 250 ading to intercept Providence VOR 284 radial. Takeoff nway 23L/R-16—turn right to 340 heading as soon as cticable after leaving 500 feet. Climb on 340 heading intercept Providence VOR 284 radial. Radar vector Providence VOR 284 radial thence via Providence VOR 4 radial to Sterling VHF intersection. Cross Sterling IF intersection at / as assigned by ATC/then via/tran- ion/or/assigned/route. Riverhead Transition via V16/ 79.

ADDITIONAL SIDs

In addition to the above, the following areas have D's published separately in graphic form in the C & low altitude chart package.

Arizona

y Harbor Airport, Phoenix
son Int'l. Airport ,Tucson

California

ndbergh Airport, San Diego
ckheed Air Terminal, Burbank
ng Beach Mun Airport, Long Beach
s Angeles Int'l Airport, Los Angeles
adows Airport, Bakersfield
kland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan nIt'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

CALIFORNIA

OCEANSIDE "OCN" VORTAC SHUTDOWN

March 1, VORTAC will be shutdown until aprxly March 5, 1965 for rehabilitation. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-23	SAX VORTAC to OCN VORTAC	SAN VORTAC to Tmpry OCN Int via SAN VORTAC 326 rad	4,000	17,000
V-23, 165	OCN VORTAC to Balboa Int	Tmpry OCN Int to Balboa Int via LGB VORTAC 120 rad	4,000	17,000
V-25, 27	SAN VORTAC to Pacific Int	SAN VOR to Tmpry Pacific Int via SAN VOR 304 rad	2,700	17,000
V-27	Pacific Int to SXC VOR	Pacific Int to SXC VOR via SXC VOR 084 rad	2,700	17,000
V-165	LIF VOR to OCN VORTAC	None		
V-208	SXC VOR to OCN VORTAC	SXC VOR to Tmpry OCN Int via SXC VOR 084 rad	4,000	17,000
V-208	OCN VOR to JLI VOR	Tmpry OCN Int to Tmpry Vista Int via JLI VOR 263 rad	4,000	17,000
		Tmpry Vista Int to JLI VOR via JLI VOR 263 rad	7,700	17,000

Existing Reporting Points	Temporary Reporting Points	MRA
Bachelor Int	None	
Banning Int	PSP VOR 259 rad and VCV VOR 131 rad	13,000
Cardiff Int	SAN VORTAC 326 rad and JLI VOR 243 rad	4,000
Nautilus Int	None	
OCN VORTAC	Tmpry OCN Int: SAN VORTAC 326 and JLI VOR 263 rad	4,000

Existing Reporting Points	Temporary Reporting Points	M
Pacific Int	SAN VORTAC 304 and SXC VOR 084 rad	2
Perris Int	LGB VORTAC 080 rad and VCV VOR 154 rad	10
Redfin Int	SAN VORTAC 304 rad and JLI VOR 239 rad	2,
Sargo Int	None	
Triton Int	SAN VORTAC 304 rad and JLI VOR 252 rad	2.
Vista Int	LIF VOR 340 rad and JLI VOR 263 rad	4,

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	M
J-1	SAN VORTAC to OCN VORTAC	SAN VORTAC to Tmpry OCN Int via SAN VORTAC 326 rad	18,000	45
J-1	OCN VORTAC to LAX VORTAC	Tmpry OCN Int to LAX VORTAC via LAX VORTAC 114 rad	18,000	45

Existing Reporting Points	Temporary Reporting Points	M
OCN VORTAC	Tmpry OCN Int: SAN VORTAC 326 rad and JLI VOR 263 rad	18

WILLIAMS "ILA" VORTAC SHUTDOWN

About Jan 19, VOR portion of VORTAC will be shutdown until ab Jan 29, for substitute route structure during shutdown use the follo

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	M
V-195	ILA VORTAC to Jewel INT	None		
V-195	ILA VORTAC to Berryessa INT	None		

Continued on next p

Airways	Existing Airways	Substitute Routes	MEA	MAA
–288	ILA VORTAC to Lakeport LNT	None		
–288	ILA VORTAC to Signal INT	None		
–6N, V–288 V–864	Signal INT to RNO VOR	Signal Int to RNO RBn via 235 Brg from RNO RBn	12 000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
burn Int	SAC VOR 020 rad and LTA VOR 231 rad	8,000
gnal Int	SAC VOR 020 rad and LTA VOR 281 rad	11,000
ba Int	SAC VOR 328 rad and MXW VOR 103 rad	4,000
wcastle Int	SAC VOR 020 rad and MXW VOR 098 rad	7,000
eville Int	SAC VOR 020 rad and MCC VOR 069 rad	3,500
mes Int	SAC VOR 328 rad and MXW VOR 111 rad	4,000
ton Int	None	
gh & Ready Int	None	
Tyessa Int	None	
eatland Int	None	
f Ross Int	None	
istoga Int	None	
ma Int	None	
erville Int	None	

ILLINOIS

LIET "JOT" VORTAC SHUTDOWN

ruary 15, VORTAC will be shutdown until aprxly February 19, 1965. substitute route structure during shutdown use the following:

Low Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
4, 16	API VOR to JOT VOR	API VOR to Tmpry JOT Int via API 212 rad	2,000	17,500
30, 73, 52	EDZ Rbn to Big Run Int	MX Rbn to Tmpry Big Run Int via MX Rbn 246 Brg	2,000	17,500
30, 52	Big Run Int to JOT VOR	Big Run Int to Tmpry JOT Int via MX Rbn 246 Brg	2,000	17,500
8, 2	CGT VOR to JOT VOR	CGT VOR to Tmpry JOT Int via CGT 272 rad	2,300	17,500
30, 171	EON VOR to JOT VOR	EON VOR to Tmpry JOT Int via EON 303 rad	2,100	17,500
428	RBS VOR to JOT VOR	RBS VOR to Tmpry JOT Int via RBS 350 rad	3,300	17,500
8, 9	PNT VOR to JOT VOR	PNT VOR to Tmpry JOT Int via PNT 020 rad	2,500	17,500
116	Washburn Int to Marseilles Int	Washburn Int to Tmpry Marseilles Int via PIA 048 rad	3,000	17,500
116	Marseilles Int to JOT VOR	None		

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–845, 282	BDF VOR to JOT VOR	BDF VOR Tmpry JOT Int via BDF 064 rad	3,300	17,500
V–30	Annawan Int to Triumph Int	Annawan Int to Tmpry Triumph Int via MLI 077 rad	4,000	17,500
V–30	Triumph Int to JOT VOR	None		
V–8, 171	Malta to JOT VOR	Malta Int to Tmpry JOT Int via RFD 133 rad	3,000	17,500
V–429	Bartlett Int to JOT VOR	None		

The following direct routes are authorized:

Marseilles Int to API VOR via API 222 rad	3,000	17,500
Bartlett Int to API VOR via API 338 rad	2,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
JOT VOR	API 212 rad and EON 303 rad	2,000
Big Run Int	API 133 rad and MX Rbn 246 Brg	2,000
Manteno Int	EON 303 rad and RBS 005 rad	2,500
Morris Int	PNT 020 rad and EON 270 rad	2,500
Marseilles Int	PIA 048 rad and PNT 349 rad	3,000
Hinckley Int	RFD 133 rad and API 267 rad	3,000
Bartlett Int	API 338 rad and ORD 275 rad	2,500
Warren Int	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J–30	ODI VOR to JOT VOR	ODI VOR to Tmpry JOT Int via ODI 131 rad	18,000	45,000
J–82	Int of J–30 and J–82 to JOT VOR	Int of J–30 and J–82 to Tmpry JOT Int via ODI 131 rad	18,000	45,000
J–35, 87,	OBK VOR to JOT VOR	OBK VOR to Tmpry JOT Int via OBK 202 rad	18,000	45,000
J–30	FWA VOR to JOT VOR	FWA VOR to Tmpry JOT Int via FWA 284 rad	18,000	45,000
J–35, 181	CAP VOR to JOT VOR	CAP VOR to Tmpry JOT Int via CAP 028 rad	18,000	45,000
J–18, 28, 87	BDF VOR to JOT VOR	BDF VOR to Tmpry JOT Int via BDF 064 rad	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
JOT VOR	BDF 064 rad and OBK 202 rad	18,000

SAMSVILLE "SAM" VOR SHUTDOWN

About Feb 8, VOR will be shut down until aprxly Feb 13 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–52, 446	TOY VOR to Cartter Int	TOY VOR to Temp Cartter Int via TOY 095R	3,000	17,500
V–446	Cartter Int to SAM VOR	Temp Cartter Int to Temp SAM Int via TOY 095R	8,000	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–44...	ENL VOR to SAM VOR	ENL VOR to Temp SAM Int via ENL 082R	3,000	17,500
V–44...	Baden Int to SAM VOR	Baden Int to Temp Decker Int via ABB 267R	7,000	17,500
		Temp Decker Int to Temp SAM Int via ENL 082R	7,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SAM VOR	ENL 082R, BIB 142R	3,000
Weston Int	None	
Ridgeway Int	None	
New Haven Int	None	
Mt. Vernon Int	None	
Phillipstown Int	None	
Texas Int	None	
Holland Int	OWB 357R, EVV 062R	2,500
Augusta Int	OWB 353R, EVV 046R	2,000
Princeton Int	OWB 328R. EVV 013R	2,500
Patton Int	EVV 358R, ENL 082R	7,000
Decker Int	EVV 013R, ENL 082R	7,000
Cartter Int	BIB 216R, TOY 095R	3,000

INDIANA

SCOTLAND "SCJ" VORTAC SHUTDOWN

About Jan 25, VORTAC will be shut down until aprxly Jan 29 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V–171..	LEU VOR to SCJ VOR	LEU VOR to Temp SCJ Int via LEU 136R	2,400	17,500
V11W..	Cloverdale Int to SCJ VOR	None		
V–11...	Wilbur Int to SCJ VOR	Wilbur Int to Temp SCJ Int via IND 205R	3,000	17,500
V–11E.	Paragon Int to SCJ VOR	None		
V–171..	Martinsburg Int to SCJ VOR	Martinsburg Int to Temp Livonia Int via LOU 309R	3,000	17,500
		Temp Livonia Int to Temp SCJ Int via LOU 309R	5,000	17,500
V–243, 843	BWG VOR to SCJ VOR	BWG VOR to Temp Apalona Int via BWG 347R	3,500	17,500
		Temp Apalona Int to Temp St. Marks Int via BWG 347R	6,000	17,500
		Temp St. Marks Int to Temp Baden Int via BWG 347R	8,200	17,500
		Temp Baden Int to Temp SCJ Int via BWG 347°R	13,500	17,500
V–11E.	Jasper Int to SCJ VOR	None		
V–11...	Mackey Int to SCJ VOR	Mackey Int to Temp SCJ VOR via EVV 030R	6,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SCJ VOR	BMG 228R, LEU 136R	2,1
Cloverdale Int	None	
Paragon Int	None	
Livonia Int	LOU 309R, ABB 267R	3,1
Mitchell Int	LOU 309R, Ind 184R	4,1
Apalona Int	BWG 347R, EVV 077R	3,5
Baden Int	BWG 347R, ABB 267R	8,2
St. Marks Int	BWG 347R, EVV 062R	6,1

SHELBYVILLE "SHB" VOR SHUTDOWN

February 23, VOR will be shutdown until aprxly Feb 27, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MA
V–12, 802	RID VOR to SHB VOR	RID VOR to Tmpry SHB Int via RID 261 rad	3,000	15,0
V–97...	Morris Int to SHB VOR	Morris Int to Tmpry SHB Int via CVG 306 rad	5,000	17,5
V–51, 819	ABB VOR to SHB VOR	ABB VOR to Tmpry Hope Int VIA ABB 351 rad	3,000	17,5
		Tmpry Hope Int to tmpry SHB Int via ABB 351 rad	5,000	17,5
V–12, 124, 802	Wilbur Int to SHB VOR	Wilbur Int to Tmpry Banta Int via LEU 070 rad	3,000	17,5
		Tmpry Banta Int to Tmpry Whiteland Int via LEU 070 rad	4,000	17,0
		Tmpry Whiteland Int to Tmpry SHB Int via LEU 070 rad	5,000	17,5
V–97W.	IND VOR to SHB VOR	IND VOR to Tmpry SHB Int VIA IND 112 rad	2,900	17,5
V–51, 97 97W, 819	LAF VOR to Stockwell Int	LAF VOR to Tmpry Stockwell Int via LAF 133 rad	2,900	14,0
V–51, 97 97W, 819	Stockwell Int to Lebanon Int	Tmpry Stockwell Int to tmpry Lebanon Int via LAF 133 rad	2,900	14,0
V–51, 97, 819	Lebanon Int to SHB VOR	Tmpry Lebanon Int to Tmpry Zionsville Int via LAF 133 rad	3,000	14,0
		Tmpry Zionsville Int to Temp SHB Int via LAF 133 rad	6,500	14,0
V–11E..	Pendleton Int to Fairmount Int	Tmpry Pendleton Int to MZZ VOR via MZZ 187 rad	3,300	12,0

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
HB VOR	IND 112 and BMG 049 rad	2,900
astleton Int	OKK 177 and IND 068 rad	2,800
axwell Int	IND 083 and MZZ 187 rad	2,800
endleton Int	IND 068 and MZZ 187 rad	3,300
rooklyn Int	LEU 070 and IND 184 rad	3,000
anta Int	LEU 070 and IND 169 rad	3,000
hiteland Int	LEU 070 and IND 136 rad	4,000
lorgantown Int	IND 169 and BMG 047 rad	2,600
ope Int	ABB 351 and BMG 073 rad	3,000
ockwell Int	LAF 133 and EPT 096 rad	2,900
banon Int	LAF 133 and OKK 219 rad	2,900
insville Int	LAF 133 and IND 021 rad	3,000

IOWA

URLINGTON "BRL" VOR SHUTDOWN

bout Jan 25, VOR will be shut down until aprxly Jan 29 for mod. For ubstitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-10, 88	IRK VOR to BRL VOR	IRK VOR to Tmpry BRL Int via IRK VOR 058 rad	7,000	17,500
V-8, 88, 845	BDF VOR to BRL VOR	BDF VOR to Tmpry BRL Int via BDF VOR 244 rad	3,800	17,500
V-48	PIA VOR to BRL VOR	PIA VOR to Tmpry BRL Int via PIA VOR 269 rad	3,000	17,500
V-83, 845	UIN VOR to BRL VOR	UIN VOR to Tmpry BRL Int UIN VOR 011 Rad	3,000	17,500
V-225	MLI VOR to BRL VOR	MLI VOR to Tmpry BRL Int via MLI VOR 195 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
RL VOR	Tmpry BRL Int PIA VOR 269 rad and MLI VOR 195 rad	3,000
uffalo Int	MLI VOR 280 rad and CVA 225 rad	1,900
anton Int	PIA VOR 231 rad and CAP VOR 330 rad	2,000
lizz Int	MLI VOR 252 rad and CVA VOR 220 rad	1,900
uscatine Int	None	
ichols Int	IOW VOR 099 rad and CVA VOR 244 rad	2,500

OWA CITY "IOW" VOR SHUTDOWN

bout Feb 4, VOR will be shut down until aprxly Feb 6 for maintenance. or substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-8,8	CVA VOR to IOW VOR	CVA VOR to Tmpry IOW Int via CVA VOR 225 rad	4,500	17,500
V-6,8	DSM VOR to IOW VOR	DSM VOR to Tmpry IOW Int via DSM VOR 079 rad	6,500	17,500
V-38	MLI VOR to IOW VOR	MLI VOR to Tmpry IOW Int via MLI VOR 280 rad	2,500	17,500
V-216	OTM VOR to IOW VOR	OTM VOR to Tmpry IOW Int via OTM VOR 042 rad	2,600	17,500
V-88, 88	Bussey Int to IOW VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
IOW VOR	Tmpry IOW Int—MLI VOR 280 Rad and CID VOR 155 Rad	2,500
Fairfield Int	OTM VOR 071 rad and BRL VOR 294 rad	2,700
Lisbon Int	CID VOR 082 rad and DBQ 222 rad	2,200
Moscow Int	MLI VOR 305 rad and CVA 255 rad	2,000
Nichols Int	BRL VOR 336 rad and MLI VOR 280 rad	2,000
Webster Int	OTM VOR 013 rad and DSM VOR 079 rad	4,200
Wellman Int	CID VOR 191 rad and DSM VOR 079 rad	4,900
Solon Int	CID VOR 093 rad and DBQ VOR 222 rad	2,500

KANSAS

EMPORIA "EMP" VOR SHUTDOWN

About Feb 1, VOR will be shut down until aprxly Feb 5 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-10	HUT VOR to EMP VOR	HUT VOR to Tmpry EMP Int via HUT VOR 068 rad	7,000	17,500
V-10	MKC VOR to EMP VOR	MKC VOR to Tmpry EMP Int via MKC VOR 223 rad	7,500	17,500
V-12	ICT VOR to EMP VOR	ICT VOR to Tmpry EMP Int via ICT VOR 051 rad	7,000	17,500
V-10N	TOP VOR to EMP VOR	TOP VOR to Tmpry EMP Int via TOP VOR 200 rad	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
EMP VOR	Tmpry EMP Int—TOP VOR 200 rad and CNU VOR 318 rad	3,000
Cassoday Int	CNU VOR 285 rad and ICT VOR 051 rad	4,500

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
Dover Int	TOP VOR 227 rad and BUM VOR 293 rad	4900
Admire Int	SLN VOR 085 rad and TOP VOR 227 rad	4,500
Ft. Riley Int	SLN VOR 070 rad and PWE VOR 188 rad	5,000
Maple Hill Int	TOP VOR 252 rad and PWE VOR 162 rad	4,000
Pomona Int	TOP VOR 172 rad and MKC VOR 223 rad	3,100
Wilsey Int	HUT VOR 052 rad and ICT VOR 027 rad	4,500

MASSACHUSETTS

BOSTON "BOS" VORTAC SHUTDOWN

March 4, VORTAC will be shutdown until aprxly March 15, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-3	BOS VOR to Ipswich Int	029_ brg from BOS RBN to Ipswich Int	2,000	17,500
	Ipswich Int to ENE VOR	029_ brg from BOS RBN to ENE VOR 212 rad to ENE VOR	3,000	17,500
	BOS VOR to Millbury Int	269_ brg from BOS RBN to Millbury Int	3,000	17,500
V-141	BOS VOR to Cohasset Int	150_ brg from BOS RBN to Cohasset Int	2,000	17,500
	Cohasset Int to HYA VOR	150_ brg from BOS RBN to HYA VOR 348 rad to HYA VOR	3,000	17,500
V-451	BOS VOR to HTM VOR	194_ brg from BOS RBN to HTM VOR 014 rad to HTM VOR	2,000	17,500
V-16	BOS VOR to Woonsocket Int	236_ brg from BOS RBN to Woonsocket Int	2,000	17,500
V-2	BOS VOR to Leominster Int	296_ brg from BOS RBN to Leominster Int	2,700	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BOS VOR	BOS RBN	1,000
Skipper Int	103_ brg from BOS RBN and HTM VOR 056 rad	1,500
Cape Int	116_ brg from BOS RBN and 029_ brg from TUK RBN	4,000
Ipswich Int	029_ brg from BOS RBN and MHT VOR 132 rad	1,800
Cohasset Int	150_ brg from BOS RBN and HTM VOR 056 rad	2,000
Brant Rock Int	150_ brg from BOS RBN and HTM VOR 099 rad	3,000
Walpole Int	236_ brg from BOS RBN GDM VOR 138 rad	1,800

Airways Existing Airways	Substitute Routes	MEA	MAA
Natick Int	269_ brg from BOS RBN and GDM VOR 128 rad		3,0(
Framingham Int	269_ brg from BOS RBN and PUT VOR 057 rad		3,0(
Westboro Int	269_ brg from BOS RBN and GDM VOR 146 rad		3,0(
Millbury Int	HFD VOR 057 rad and GDM VOR 164 rad, or "OR" (Worcester LOM)		3,0(
Middleton Int	359_ brg from BOS RBN and GDM VOR 101 rad		1,5(
Haverhill Int	359_ brg from BOS RBN and MHT VOR 132 rad		1,8(
Revere Int	029_ brg from BOS RBN and BED ILS Back Course		1,0(
Marblehead Int	065_ brg from BOS RBN and MHT VOR 145 rad		1,0(
Magnolia Int	065_ brg from BOS RBN and MHT VOR 132 rad		1,5(

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-97	BOS VORTAC to ACK VORTAC	166_ brg from BOS RBN to TUK RBN	18,000	45,0(
J-97	BOS VORTAC to PLB VORTAC	339_ brg from BOS RBN to PLB VORTAC 159 rad to PLB	18,000	45,00
J-82	BOS VORTAC to ALB VORTAC	339_ brg from BOS RBN to ALB VORTAC 097 rad to ALB	18,000	45,0(
J-77	BOS VORTAC to HUO VORTAC	267_ brg from BOS RBN to HUO VORTAC 080 rad to HUO	18,000	45,0(
J-77	BOS VORTAC to ENE VOR	029 brg from BOS RBN to ENE VOR 212 rad to ENE	18,000	45,00
J-16, 94	BOS VORTAC to ALB VORTAC	296_ brg from BOS RBN to ALB VORTAC 113 rad to BOS	18,000	45,00
J-575	BOS VORTAC to JFK VORTAC	246_ brg from BOS RBN to JFK VORTAC 061 rad to JFK	18,000	45,00
J-575, CAE 1141	BOS VORTAC to QI VOR	080_ brg from BOS RBN to QI VOR 270 rad to QI	18,000	45,00

Existing Reporting Points	Temporary Reporting Points	MRA
BOS VORTAC	BOS RBN	18,0(
Cape Intersection	116_ brg from BOS RBN and 029_ brg from TUK RBN	18,0(

Continued on next page

IYANNIS HYA VOR SHUTDOWN

bout April 1 VOR will be shutdown until aprxly April 12 for freq change 116.6 mc. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
-141	HYA VOR to BOS VOR 148 rad	344 brg from HY LOM to BOS VOR 148 rad	3,000	17,500
	ACK VOR to HYA VOR	ACK VOR 357 rad to HYA VOR	1,800	17,500
-167	Dennis Int to HYA VOR	MVY VOR 060 rad to HYA VOR	2,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
'A VOR	ACK VOR 357 rad and MVY VOR 060 rad	2,000
aigville Int	ACK VOR 357 rad and MVY VOR 080 rad	1,800
nnis Int	PVD VOR 115 rad and MVY VOR 060 rad	2,500
uskeget Int	None	

NTUCKET ACK VORTAC SHUTDOWN

out March 4, VORTAC will be shutdown until aprxly March 15 for freq; annel change to 117.7 mc/124. For substitute route structure during utdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
46	ACK VORTAC to Clam Int	ACK Int to TUK RBN 270 Brg from TUK RBN to Clam Int	2,000	17,500
	Clam Int to Oyster Int	270 Brg from TUK RBN to Oyster Int	2,000	17,500
	Oyster Int to HTO VORTAC 096 rad	270 Brg from TUK RBN to HTO VORTAC 096 rad	2,000	17,500
-146	MVY VOR to ACK VORTAC	MVY VOR 119 rad to ACK Int	2,000	17,500
-141	Craigville Int to ACK VOR	HYA VOR 178 rad to ACK Int	1,900	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
CK VORTAC	MVY VOR 119 rad and HYA 178 rad	2,000
yster Int	270 Brg from TUK RBN and PVD VOR 180 rad	2,000
ape Int	BOS VOR 113 rad and HYA VOR 046 rad	4,500
lam Int	270 Brg from TUK RBN and MVY VOR 180 rad	2,000
ower Int	096 Brg from TUK RBN and HYA VOR 144 rad	2,000

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
-62	JFK VORTAC to ACK VORTAC	JFK VORTAC 087 rad to HTO VOR. HTO VOR 092 rad to ACK Int	18,000	40,000
J-97	BOS VORTAC to ACK VORTAC	346 brg from TUK RBN to BOS RBN	18,000	40,000
J-68	PVD VOR to ACK VORTAC	PVD VOR 126 rad to ACK Int	18,000	40,000
J-585	ACK VORTAC to QI VOR	069 brg from TUK RBN to QI RBN	18,000	40,000

Existing Reporting Points	Temporary Reporting Points	MRA
ACK VORTAC	MVY VOR 119 rad and HYA VOR 178 rad	18,000
Cape Int	029 brg from TUK RBN and the 116 brg from BOS RBN	18,000

MICHIGAN

CARLETON "CRL" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shutdoen until aprxly Feb 11. For substitute route structure during shutdown use the flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-98	QG VOR to CRL VOR	QG VOR to Temp CRL Int via QG 250R	2,500	17,500
V-224	Tilbury Int to CRL VOR	None		
V-10, 188	Gill Int to Trout Int	Gill Int to Temp Trout Int via JFN 283R	5,000	17,500
V-10, 188	Trout Int to CRL VOR	None		
V-297	St. George Int. to CRL VOR	None		
V-275	VWV VOR to CRL VOR	VWV VOR to Temp CRL Int via VWV 015R	2,500	17,500
V-10	Adrian Int to CRL VOR	Temp Adrian Int to Temp CRL Int via QG 250R	4,000	17,500

Airways	Existing Reporting Points	Temporary Reporting Points	MRA	MAA
	CRL VOR	QG 250R, SVM 168R	2,500	17,500
	Samaria Int	None		
	Adrian Int	VWV 331R, SVM 210R	4,000	17,500
	Dundee Int	VWV 357R, QG 250R	3,000	17,500
	Canard Int	SVM 124R, QG 204R	2,500	17,500
	Essex Int	None		
	Detroit River Int	SVM 143R, QG 227R	2,500	17,500
	Pelee Int	SVM 124R, SKY 010R	3,000	17,500
	Trout Int	QG 137R, SKY 014R	3,000	17,500
	Crest Int	SVM 143R, VWV 050R	3,000	17,500
	St. George Int	STG 309R, SKY 008R	3,000	17,500

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JACKSON JXN VOR SHUTDOWN

March 1, VOR will be shutdown until aprxly March 5, 1965, for substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-45...	Leslie Int to JXN VOR	Leslie Int to Tmpry JXN Int via LAN 161R	3,000	17,500
V-106, 116, 221	SVM VOR to JXN VOR	SVM VOR to Tmpry JXN Int via SVM 259R	3,000	17,500
V-45...	Adrian Int to JXN VOR	None		
V-221..	LFD VOR to JXN VOR	LFD VOR to Tmpry JXN Int via LFD 051R	3,000	17,500
V-106, 116	Leroy Int to JXN VOR	Leroy Int to Tmpry JXN Int via ELX 084R	8,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
JXN VOR	LAN 161R and LFD 051R	3,000
Pinckney Int	SVM 275R and FNT 210R	3,000
Dexter Int	SVM 259R and YIP 295R	3,000
Marshall Int	ELX 084R and LAN 216R	5,000
Howell Int	LAN 112R and FNT 213R	2,900
Brooklyn Int	None	

SAULT STE MARIE SMM VOR SHUTDOWN

March 15, VOR will be shutdown until aprxly March 19, for substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-300, 462	FSP VOR to SSM VOR	FSP VOR to SSM Rbn via FSP 122R and SSM Rbn 301 Brg	2,300	17,500
V-300N	FSP VOR to SSM VOR	FSP VOR to SSM Rbn via FSP 088R and SSM Rbn 330 Brg	2,400	17,500
V-193..	PLN VOR to SSM VOR	PLN VOR to SSM Rbn via PLN VOR 006R and SSM Rbn 211 Brg	2,600	17,500
V-300..	VV VOR to SSM Rbn	VV VOR to SSM Rbn via VV 315R and SSM Rbn 129 Brg	6,000	17,500
V-300N	VV VOR to SSM Rbn	VV VOR to SSM Rbn via via R-23 to ZE LFR, thence via ZE LFR NW course & SSM 116 Brg	6,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SSM VOR	SSM Rbn	2,300
Pine Int	None	
St. Joseph Int	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-101..	GRB VOR to SSM VOR	GRB VOR to SSM Rbn via GRB 053R & SSM Rbn 240 Brg	18,000	45,000
J-500, HL-500	QT LFR to SSM VOR	QT LFR to SSM Rbn via QT LFR 295 Brng & SSM Rbn 305 Brg	18,000	45,000
J-500, HL-500	ZE LFR to SSM VOR	ZE LFR to SSM Rbn via ZE LFR NW course & SSM Rbn 116 Brg	18,000	45,

Existing Reporting Points	Temporary Reporting Points	MI
SSM VOR	SSM Rbn	18,

MINNESOTA

NODINE "ODI" VORTAC SHUTDOWN

About Jan 25, VORTAC will be shutdown until aprxly Jan 29 for mod. substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MRA	MI
V-170-82	DLL VOR to ODI VOR	DLL VOR to ODI Int via DLL VOR 284 rad	4,000	17,
V-2-87-853	Prescott Int to ODI VOR	Prescott Int. to ODI Int via MSP VOR 125 rad	9,500	17,
V-2-87-171-853	LNR VOR to ODI VOR	LNR VOR to ODI Int via LNR VOR 298 rad	3,100	17,
V-129..	EAU VOR to ODI VOR	EAU VOR to ODI Int via EAU VOR 176 rad	3,900	17,
	Caledonia Int to ODI VOR	Caledonia Int to ODI Int UKN VOR 360 rad	3,100	17,
V-82...	Chatfield Int to ODI VOR	Chatfield Int to ODI Int via RST VOR 076 rad	3,100	17,
V-171..	FGT VOR to ODI VOR	FGT VOR to ODI Int via FGT VOR 114 rad	8,000	17,
V-2N .	El Paso Int to ODI VOR	None		

Existing Reporting Points	Temporary Reporting Points	MR
ODI VOR	Tmpry ODI Int—UKN VOR 360 rad & RST VOR 076 rad	2,
Westby Int	LNR VOR 298 rad and UKN VOR 048 rad	3,1
Elba Int	FGT VOR 114 rad and RST VOR 046 rad	8,(
Winona Int	MSP VOR 125 rad and RST VOR 061 rad	9,5
Arcadia Int	EAU VOR 176 rad and RST VOR 061 rad	3.9
Preston Int	None	
Granger Int	None	
Dodge Int	None	
Goodhue Int	FGT VOR 114 rad and RST VOR 351 rad	2.3

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-30-34-36	MSP VOR to ODI VOR	MSP VOR to ODI Int via MSP VOR 125 RAD	24,000	41,0(
J-34-36	ODI VOR to MKE VOR	ODI Int to MKE VOR via MKE VOR 289 RAD	24,000	41.0
J-36	ODI VOR to JOT VOR	None		

Continued on next pag

Existing Reporting Point	Temporary Reporting Point	MRA
ll VOR	Tmpry ODI Int—MSP VOR 125 RAD and MCW VOR 052 RAD	24,000

DWOOD FALLS "RWF" VOR SHUTDOWN

51, VOR will be shutdown until aprxly Feb 5. For substitute route uctures during shutdown use the following:

Low Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
84	ATY VOR to RWF VOR	ATY VOR to RWF Int. via ATY VOR 100 RAD	9,700	17,500
	Alma City Int. to RWF VOR	Alma City Int. to RWF Int. via RST VOR 287 RAD	10,300	17,500
ways	Existing Airways	Substitute Routes	MEA	MAA
85	Lydia Int. to RWF VOR	Lydia Int. to RWF Int. via FGT VOR 258 RAD	8,200	17,500
	HON VOR to RWF VOR	None		
148	Mayer Int. to RWF VOR	Mayer Int. to RWF Int. via MSP VOR 236 RAD	8,700	17,500
	FSD VOR to RWF VOR	FSD VOR to RWF Int. via FSD VOR 046 RAD	7,700	17,500
285	HON VOR to RWF VOR	None		
1485	FSD VOR to RWF VOR	None		

Existing Reporting Point	Temporary Reporting Point	MRA
F VOR	Temporary RWF Int.: DWN VOR 211 RAD and FSD VOR 046 RAD	7,700
ison Int	None	
ay Int	None	

MISSOURI

RYLAND HEIGHTS "MTS" VOR SHUTDOWN

ruary 23, VOR will be shutdown until aprxly February 27, 1965. For stitute route structure during shutdown use the following:

Low Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
12, 302	REA VOR to MTS VOR	REA VOR to Tmpry MTS Int via REA VOR 091 rad	2,600	17,500
12, 302	TOY VOR to MTS VOR	TOY VOR Tmpry MTS Int via TOY VOR 259 rad	2,300	17,500
128	REA VOR to MTS VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
TS VOR	Tmpry MTS Int—TOY VOR 259 rad and STL VOR 208	2,300
well Int	REA VOR 091 rad and STL VOR 229 rad	2,600
Monroe Int	RCW VOR 354 rad and STL VOR 276 rad	2,600
Osage Int	None	
Park Int	TOY VOR 251 rad and STL VOR 131 rad	2,100
St. Paul Int	STL VOR 276 rad and RCW VOR 360 rad	1,800
Hartford Int	None	

NEW JERSEY

STILLWATER "STW" VORTAC SHUTDOWN

About March 4, VORTAC will be shutdown until aprxly March 15, 1965 for freq/channel change to 109.6 mc 33. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-153	LGA VOR to AVP VOR	None		
V-228	JFK VOR to TOH VOR	None		
V-804	STW VOR to TOH VOR	None		

Temporary Routes		MEA
TVE VOR to Budd Lake Int	Via the TVE VOR 103 rad to Tmpry Budd Lake Int	2,600
SAX to Budd Lake Int	Via SAX VOR 205 rad to tmpry Budd Lake Int	2,500

Existing Reporting Points	Temporary Reporting Points	MRA
Budd Lake Int	SAX VOR 205 rad and TVE VOR 103 rad	2,500

NEW YORK

BUFFALO "BUF" VORTAC SHUTDOWN

VORTAC freq interference is affecting the following jet routes based on BUF VORTAC until the frequency of BUF VORTAC is changed. For substitute route structure use the following:

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J16/94	BUF VORTAC to ALB VORTAC	BUF VORTAC to SYR VORTAC via BUF VORTAC 090 rad and SYR VORTAC 274 rad thence to ALB VORTAC via SYR VORTAC 115 rad and ALB VORTAC 294 rad	24,000	41,000

Continued on next page

**Changeover Point—30 NM E of BUF VORTAC—
78 NM W of SYR VORTAC**

Airways	Existing Airways	Substitute Routes	MEA	MAA
J61/ 109	BUF VORTAC to PSB VORTAC	BUF VORTAC to PSB VORTAC via BUF VOR-VORTAC 354 rad	24,000	41,000

**Changeover Point—28 NM S of BUF VORTAC—
104 NM N of PSB VORTAC**

Airways	Existing Airways	Substitute Routes	MEA	MAA
J95....	BUF VORTAC to HUO VORTAC	BUF VORTAC to HUO VORTAC via BUF VOR-TAC 123 rad and HUO VORTAC 309 rad	24,000	41,000

**Changeover Point—37 NM SE of BUF VORTAC—
162 NM NW of HUO VORTAC**

About Feb 4, VORTAC will be shut down until aprxly Feb 15 for freq/ channel change to 116.5 mc/111. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Sub stitute Airways	MRA	MEA
V–14N..	Brocton Int to BUF VORTAC	None		
V–14...	DKK VOR to BUF VORTAC	DKK VOR to BUF Int via VOR 053 rad	3,000	17,500
V–14, 84, 252	GEE VORTAC to BUF VORTAC	GEE VORTAC to BUF Int via GEE VORTAC 287 rad	3,300	17,500
V–115..	JHW VOR to BUF VORTAC	JHW VOR to BUF Int via JHW VOR 032° rad	3,700	17,500
V–33...	BFD VOR to BUF VORTAC	BFD VOR to BUF Int via VOR 006° rad	5,000	17,500
V–164..	ELZ VOR to BUF VORTAC	ELZ VOR to BUF Int via ELZ VOR 339 rad	5,000	17,500
V–36...	Burns Int to BUF VORTAC	via BUF RBn 131° brg to BUF RBn	3,500	17,500
V–36...	Niagara Int. to BUF VORTAC	via BUF RBn 324 brg to BUF RBn	2,300	17,500
V–2....	ROC VOR to BUF VORTAC	ROC VOR to BUF Int via ROC VOR 264 rad	5,000	17,500
V–142..	Grant Int. to BUF VORTAC	via BUF RBn 051° brg to BUF RBn	2,300	17,500
V–36S..	Grimsby Int to BUF VORTAC	via BUF RBn 302 brg to BUF RBn	2,300	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BUF VORTAC.....	Tmpry BUF Int: DKK VOR 053 rad GEE VORTAC 287 Rad JHW VOR 032 rad	3,000
Niagara Int.....	DKK VOR 010 rad and YZ VOR 148 rad	
Lewiston Int.....	BUF RBn 324 brg and DKK VOR 020 radial	3,(
Grant Int.....	BUF RBn 051 brg and ROC VOR 298 rad	2,
Dale Int.....	BUF RBn 131 brg and ROC VOR 241 rad	3,
Langford Int.....	JHW VOR 032 rad and DKK VOR 080 rad	3,
Crystal Beach Int.....	None	
Grimsby Int.....	None	
Thorold Int.....	BUF RBn 302 brg and DKK VOR 006 rad	2,

Jet Routes

Airways	Existing Routes	Substitute Routes	MRA	MI
J–95...	KG VOR to HUO VOR	KG 150 rad and BGM 303 rad to BGM thence via BGM 132 rad and HUO 314 rad to HUO	FL 180	FL
J–61, J–109	BUF VOR to PSB VOR	BUF Int to PSB VORTAC via PSB 354 rad	FL 180	FL
J–16, J–94	XU VOR to ALB VOR	XU 096 rad and GGT 286 rad to GGT thence via GGT 104 rad and ALB 283 rad to ALB	FL 180	FL
J–94..	BUF VOR to ALB VOR	BUF Int thence via GGT 286 rad to GGT thence via GGT 104 rad and ALB 283 rad to ALB	FL 180	FL

Existing Reporting Points	Temporary Reporting Points	MR
BUF VORTAC.....	Tmpry BUF Int: BFD 006 rad and XU 098 rad	FL 1

OHIO

TIVERTON "TVT" VOR SHUTDOWN

About Feb 4, VOR will be shut down until aprxly Feb 15 for freq change 116.5 mc. For substitute route structure during shut down, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Route	MEA	MRU
V–43...	APE VORTAC to TVT VOR	APE VORTAC to TVT Int. via APE VORTAC 051 rad	3,000	17,5
V–43...	TVT VOR tv BSV VORTAC	TVT Int. to BSV VORTAC via BSV VORTAC 246 rad	3,100	17,5
V–133..	MFD VORTAC to TVT VOR	MFD VORTAC to TVT Int via MFD VORTAC 142 rad	3,000	17,5
V–133,	TVT VOR to ZZV VOR	TVT Int to ZZV VOR via ZZV VOR 344 rad	3,000	17,50

Continued on next pag

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-443..	CTW VOR to TVT VOR	CTW VOR to TVT Int via CTW VOR 298 rad	3,000	17,500
V-443 V-881	TVT VOR to CLE VORTAC	CLE VORTAC to TVT Int. via CLE VORTAC 181 rad	4,000	17,500
V-210..	IRL VORTAC to TVT VOR	IRL VORTAC to TVT Int. via IRL VORTAC 274 rad	8,000	17,500
V-210..	TVT VOR to ROD VORTAC	TVT Int to ROD VORTAC via ROD VORTAC 084 rad	8,000	17,500
V-443E	TVT VOR to Sharon	None		

Existing Reporting Point	Temporary Reporting Point	MRA
TVT VOR.....	Tmpry TVT Int: APE VORTAC 051 rad and ZZV VOR 344 rad	3,000 3,000

PENNSYLVANIA

LARION "CIP" VOR

ue to restriction on new VOR freq 112.9 mc the following substitute route efctv immediately:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-118, 884	CIP VOR to IRL VORTAC	CIP VOR to IRL VORTAC via CIP 228 and IRL VORTAC 047 rad	see below	

MEA IRL to Freeport Int 3,000. Freeport Int to CIP 3,300, MAA 17,500.

Existing Reporting Points	Temporary Reporting Points
Freeport Int.....	EWC VORTAC 120 rad and IRL VORTAC 047 rad

ELLWOOD CITY "EWC" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shutdown until aprxly Feb 16 for freq/ channel change to 115.8 mc/105. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	ACC VOR EWC VOR-EWC VOR-ERI VOR	IRL 008 rad to EWC Int None	3,000	17,000
V-115..	TDT VOR-EWC VOR	TDT 220 rad to EWC Int	4,000	17,000
V-226..	CIP VOR-EWC VOR	CIP 247 rad to tmpry EWC Int	3,500	17,000
V-276..	BSV VOR-EWC VOR TON VOR	BSV 088 rad to TON 281 rad to TON VOR	4,000	17,000
V-287..	ACO VOR-EWC VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
EWC VOR.....	Tmpry EWC Int IRL 008 rad & CIP 247 rad	3,000
Palestine Int.....	BSV 088 rad & IRL 331 rad	3,000
Midland Int.....	IRL 331 rad & HLG 020 rad.....	3,000
Volant Int.....	ERI 182 rad & CIP 257 rad.....	7,000
Mercer Int.....	ERI 182 rad & YNG 106 rad.....	7,000
Wesley Int.....	TDT 220 rad & CIP 288 rad....	4,000

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-84...	FWA VORTAC to ARD VORTAC	FWA VORTAC 086 rad and ATO VORTAC 269 rad to ATO	FL180	FL450
		ATO VORTAC 097 rad and TON VORTAC 284 rad to TON	FL180	FL450
		TON VORTAC 102 rad and ARD VORTAC 294 rad to ARD	FL180	FL410

ERIE "ERI" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shut down until aprxly Feb 8, 1965 for freq / channel change to 112.7 mc/74. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-14N..	Brocton Int to ERI VORTAC	None		
V-14...	DKK VOR to ERI VORTAC	DKK VOR to ERI Int via DKK VOR 245 rad	3,500	17,500
V-14, 126	JFN VORTAC to VORTAC	JFN VORTAC to ERI Int via JFN VORTAC 057 rad	3,500	17,500
V-14N..	Fairport Int to ERI VORTAC	None		
V-116..	Angler Int to ERI VORTAC	None		
V-116, 126, 170	Warren Int to ERI VORTAC	BFD VOR to ERI Int via BFD VOR 288 rad	6,000	17,500
V-37...	Hadley Int to ERI VORTAC	None		
V-37...	Catfish Int to ERI VORTAC	ERI RBn to ERI Int via ERI RBn 002 brg	2,300	17,500
V-270..	JHW VOR to ERI VORTAC	JHW VOR to ERI Int via JHW VOR 266 rad	4,500	17,500
V-43...	YNG VOR to ERI VORTAC	YNG VOR to ERI Int via YNG VOR 027 rad	3,500	17,500
V-184..	TDT VORTAC to VORTAC	TDT VORTAC to ERI Int via TDT VORTAC 301 rad	3,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ERI VORTAC.....	Tmpry ERI Int: JFN VORTAC 057 rad and TDT VORTAC 301 rad	3,500
Linesville Int.....	YNG VOR 027 rad, JFN VOR 098 rad, and TDT VORTAC 279 rad	3,500
Sunfish Int.....	None	
Blue Pike Int.....	None	

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
Sturgeon Int		None		
Harborcreek Int		None		
Hammatt Int		DKK VOR 245 rad and TDT VORTAC 325 rad	3,000	
Lawrence Int		BFD VOR 288 rad and TDT VORTAC 330 rad	4,000	
Wattsburg Int		JHW VOR 266 rad and TDT VORTAC 325 rad	4,000	
Catfish Int		ERI RBn 002 Brg and DKK VOR 273 rad	3,500	

YARDLEY "ARD" VORTAC SHUTDOWN

About Mar 4, VORTAC will be shut down until aprxly Mar 16, 1965 for freq/channel change to 112.7 mc/74. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-433	EWT VORTAC to Rocky Hill Int	Via EWT VORTAC V-433 to Int of V-147, thence direct to PNE VOR, PNE VOR 049 rad to tmpry Rocky Hill Int (Holding SW on PNE 049 rad)	4,000	17,500
V-276	RAV VORTAC to RBV VORTAC	Via RAV VORTAC 111 rad to EWT VORTAC 053 rad, thence direct RBV VORTAC	4,000	17,500
V-268	Warrington Int to ARD VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Amboy Int	COL VORTAC 355 rad and SBJ VORTAC 104 rad	2,000
Adams Int	None	
Bristol Int	None	
Berman Int	None	
Dublin Int	None	
Greenbank Int	None	
HI-Line Int	None	
Kilmer Int	None	
Marshall Int	None	
Old Star Int	None	
Rocky Hill Int	PNE VOR 049 rad and COL VORTAC 294 rad and EWT VORTAC 053 rad	4,000
Somerton Int	PTW VOR 113 rad and EWT VORTAC 053 rad	2,400
ARD VORTAC	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-6, 8, 42	FRR VORTAC to JFK VORTAC	Via FRR VORTAC 071 rad and JFK VORTAC 259 rad	FL240	FL450
J-64	EWC VORTAC to JFK VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
ARD VORTAC	Tmpry ARD Int—JFK VORTAC 259 rad and ABE VORTAC 148 rad	FL24 30

TEXAS

LAREDO "LRD" VOR SHUTDOWN

About Feb 3, VORTAC will be shut down until aprxly Feb 8, 1965 for fre channel change to 117.4 mc/121. For substitute route structure dur shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Route	MEA	MA
V-17	LRD VOR to COT VOR	Tmpry LRD Int to COT VOR via COT 185 rad	6,000	17,5

Existing Reporting Points	Temporary Reporting Points	MR
LRD VORTAC	Tmpry LRD Int-COT 185 rad aid ALI 250 rad	6,0

High Altitude

Airways	Existing Airways	Substitute Route	MEA	MA
V-21	LRD VOR to SAT VOR	Tmpry LRD Int to SAT via SAT 198 rad	24,000	45,0
V-22	LRD VOR to CRP VOR	Tmpry LRD Int to CRP VOR via CRP 248 rad	24,000	45,0

Existing Reporting Points	Temporary Reporting Points	MR
LRD VORTAC	Tmpry LRD Int-SAT 193 rad and CRP 248 rad.	24,0

McALLEN "MFE" VOR SHUTDOWN

VOR shutdown for antenna replacement. For substitute route struct during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Route	MEA	MA
V-68	MFE VOR to HRL VOR	Tmpry MFE Int to HRL VOR via HRL 245 rad	2,500	17,5

Existing Reporting Points	Substitute Reporting Points	MR
MFE VOR	Tmpry MFE Int-HRL 245R/ BRO 278 rad	2,5
Edinburg Int	None	
Weslaco Intfll	None	
Raymondville Int	None	
Armstrong VHF Int	None (Armstrong DME Int satisfactory)	

VIRGINIA

PULASKI "PSK" VOR SHUTDOWN

VORTAC shut down for freq/channel change to 115.9mc/106. F substitute route structure during shutdown, use flwg:

Low Altitude Airways

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37	FML VOR to PSK VOR	Unusable		
	PSK VOR to EKN VOR	020 Brg from PK LFR to intercept 199 rad EKN to EKN	8,000	17,5

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ways	Existing Airways	Substitute Routes	MEA	MAA
-16...	HMV VOR to ROA VOR	HMV 062 rad and ROA 248 rad	7,000	17,500
-16N.	BLA VOR to PSK VOR	Unusable		
-37W.	HKY VOR to PSK VOR	Unusable		
-46...	BLF VOR to GSO VOR	BLF 123 rad to intercept 303 Brg to PK LFR to PSK; 148 Brg from PK LFR to intercept GSO 337 rad to GSO	6,000	17,500
-80...	BKW VOR to PSK VOR	BKW 157 rad to tmpry PSK Int	6,000	17,500
136..	PSK VOR to SBV VOR	098 Brg from PK LFR to intercept SBV 302 rad to SBV	5,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VORTAC	ROA 248 rad and BKW 157 rad	6,000 17,500

Jet Routes

ways	Existing Routes	Substitute Routes	MEA	MAA
53...	AGC to SPA	195 rad AGC to intercept 013 brg to PK LFR to thence 206 brg from PK LFR to intercept PSK; 026 rad SPA to SPA	FL180	FL450
	CRW to RDU	149 rad CRW to intercept 313 rad RDU to RDU	FL180	FL450
22...	TYS to GVE	064 rad TYS to intercept 252 rad GVE to GVE	FL180	FL450

Jet Route

ways	Existing Airways	Substitute Routes	MEA	MAA
48...	HRN VORTAC to PSK VORTAC	HRN VORTAC to PK LFR via HRN VORTAC 241 rad and 056 Brg from PK LFR	180	450

Existing Reporting Points	Temporary Reporting Points	MRA
SK VORTAC	PK LFR	180
SK VORTAC	GVE VORTAC 252 rad and GSO VOR 334 rad	180

WASHINGTON

ORT ANGELES "CLM" VOR SHUTDOWN

an 18, VOR will be shutdown until aprxly Jan 22. For substitute route tructure during shutdown use the following:

Low Altitude Airways

ways	Existing Airways	Substitute Routes	MEA	MAA
-4.... V-287	SEA VOR to Jamestown Int	SEA VOR to Jamestown Int via SEA VOR 300 rad	7,000	17,500
	Jamestown Int to EBY RBn	None		

Existing Reporting Points	Temporary Reporting Points	MRA
LM VOR	None	
amestown Int	Dungeness Fan marker	N/A

WENATCHEE "EAT" VOR SHUTDOWN

About Mar 1, VOR will be shutdown until aprxly Mar 15, 1965 for rehabilitation. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-2N..	SEA VOR to EPH VOR	SEA VOR to EPH VOR via 069 rad SEA VOR and 252 rad EPH VOR to Cashmere Int	12,000	17,500
		thence via 252 rad EPH VOR to EAT Int	9,000	17,500
		thence via 252 rad EPH VOR to EPH VOR	5,500	17,000
V-25...	ELN VOR to EAT VOR	ELN VOR to EAT Int via via 002 rad ELN VOR	9,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
EAT VOR	Tmpry EAT Int—002 rad ELN VOR and 252 rad EPH VOR	9,000
Cashmere Int	339 rad ELN VOR and 252 rad EPH VOR	12,000
Beehive Int	002 rad ELN VOR and 243 rad EPH VOR	9,000
Quincy Int	None	

WISCONSIN

GREEN BAY "GRB" VOR SHUTDOWN

About Feb 15 VOR will be shutdown until aprxly Feb 19. For substitute route structures during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-7....	MNM VOR to GRB VOR	MNM VOR to GRB Int. via MNM VOR 212 rad	4,200	17,500
	Calvary Int. to GRB VOR	Calvary Int. to GRB Int. via MKE VOR 002 rad	7,000	17,500
V-9....	OSH VOR to GRB VOR	OSH VOR to GRB Int. via OSH VOR 023 rad	4,200	17,500
V-56...	STE VOR to GRB VOR	STE VOR to GRB Int. via STE VOR 086 rad	4,200	17,500
	MKG VOR to GRB VOR	None		
V-28...	Wittenberg Int. to GRB VOR	Wittenberg Int. to GRB Int. via AUW VOR 104 rad	4,400	17,500
	HIC VOR to GRB VOR	None		
V-217..	RHI VOR to GRB VOR	RHI VOR to GRB Int. via RHI VOR 139 rad	8,200	13,500
	GRB VOR to Wall Eye Int	None		
V-459..	GRB VOR to MKG VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
GRB VOR	OSH VOR 023 rad and and STE VOR 086 rad	4,200

Continued on next page

Existing Reporting Points	Temporary Reporting Points	MRA
Chilton Int	MKE VOk 002 rad and OSH VOR 066 rad	7,000
Sherwood Int	MKE VOR 002 rad and OSH VOR 041 rad	7,000
Little Chute Int	OSH VOR 023 rad and STE VOR VOR 104 rad	4,200
Bear Creek Int	STE VOR 086 rad and OSH VOR 356 rad	4,200
Wolf Int	AUW VOR 104 rad and OSH VOR 359 rad	4,400
Cecil Int	RHI VOR 139 rad and MNM VOR 240 rad	8,200
Pine Grove Int	None	
Nero Int	None	
Nicollet Int	None	
Larrabee Int	None	
Franklin Int	None	
Collins Ibt	None	
Waffle Int	None	
Big Falls Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes
J–101	SSM VOR to GRB VOR	None
	MKE VOR to GRB VOR	None
J–38	ECK VOR to GRB VOR	None
	DLH VOR to GRB VOR	None
J–106	MSP VOR to GRB VOR	None

Existing Reporting Point	Temporary Reporting Point	MRA
GRB VOR	None	

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VISUAL NAVIGATION CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

ABERDEEN

38th Edition, August 20, 1964

Delete Madison arpt 44°01′N, 97°03′W. Delete Nicholas arpt 45°37′N, 101°30′W. Add obstn 2029′ MSL 43°56′59″N, 96°54′36″. Add obstn 2040′ MSL 44°23′-02″N, 97°00′37″W. In northern border change Bismarck VOR freq 115.7 to 116.5.

•ALBANY

54th Edition, February 4, 1965

No hazardous changes.

•ALBUQUERQUE

53rd Edition, August 20, 1964

Add obstn 4100′ MSL 34°31′00″N, 102°17′00″W. Add obstn 5012′ MSL 35°08′03″N, 103°41′52″W. Delete Bacaville VOR 34°35′N, 106°50′W. Delete Dalhart RBn 36°01′N, 102°03′W. In eastern border correct Borger VOR ident BDG to BGD Revise DALHART ctl zone to include airspace 5 mi radius of DALHART arpt 36°01′10″N, 102°33′10″W.

•AROOSTOOK

41st Edition, April 30, 1964

Delete Green arpt 46°02′N, 68°16′W. Realign Red 9 airway direct from Montmorency RBn to Bagotville RBn. Add obstn 740′ MSL 46°09′00″N, 70°12′17″W. Add obstn 525′ MSL 46°10′45″N, 71°20′00″W. Add obstn 625′ MSL 46°52′50″N, 71°19′35″W. Add obstn 349′ MSL 47°00′00″N, 70°31′00″W. Add obstn 433′ MSL 47°16′40″N, 70°12′00″W. Add obstn 593′ MSL 46°-36′05″N, 65°55′50″W. Add Burtts RBn freq 350, ident LI, class MHW 46°03′52″N, 66°52′13″W. Add Charlo (Pvt) RBn freq 203, ident CL, class HW 47°59′N, 66°20′W. Extend Loring AFB Military Climb Corridor R–3902 1 mi S & 6 mi N. Realign Fredericton LFR W leg from 103°M to 096°M. Delete Presque Isle LFR 46°44′N, 68°04′W. Add Quebec M.V. 19°W VOR freq 112.8, ident QB class BVOR 46°42′20″N, 71°37′36″W. Realign airway V 318 direct from Houlton to Que Add V314 airway direct from MILLINOCKET QUEBEC (135°M QUEBEC).

•AUSTIN

58th Edition, November 12, 1964

Delete ALLISON RANCH arpt 30°44′N, 102°02′ Add obstn 2244′ MSL 30°18′15″N, 98°51′45″W. Del SHARPS arpt 31°40′N, 97°44′W. Delete PIER RANCH arpt 30°28′N, 101°21′W.

•BEAUMONT

52nd Edition, September 17, 1964

Delete Saltzman arpt 29°57′N, 92°27′W. Add ob 385′ MSL 30°08′19″N, 94°38′26″W. Add obstn 3 MSL 30°26′18″N, 93°47′16″W. Add obstn 329′ M 30°35′47″N, 91°31′47′W. Add obstn 508′ MSL 30°3 57″N, 92°08′14″W. Add obstn 347′ MSL 31°03′33″ 92°08′38″W. Add obstn 525′ MSL 31°33′17″N, 9 34′04″W. Add obstn 440′ MSL 30°01′55″N, 94°59′37″ Add 2 obstns 467′ MSL 29°59′20″N, 90°27′45″W 30°00′35″N, 90°27′22″W. Change obstn 1044′ MSL 1244′ MSL 30°02′38″N, 92°22′17″W. Delete La Charles ctl twr freq 109.1. Delete Esler RBn 31°19′ 92°14′W. Add Fort Polk, La. ctl zone 5 mi radius wi extsns 8 mi SE & 8 mi NW of RBn. Add Navasota V(freq 109.6, ident TNV, class BVOR, M.V 8°E 30°17′20″ 96°03′30″W. Add obstn. 400′ MSL 30°45′44″N, 91°20′3 W. Add obstn 435′ MSL 30°07′57″N, 94°18′55″W. A obstn 625′ MSL 31°40′05″N, 95°48′10″W. Add obs 265′ MSL 30°10′00″N, 93°36′06″W. Add obstn 260′ MS 30°06′35″N, 92°47′37″W. Add obstn 1016′ MSL 31°4 40″N, 95°08′35″W. NAAS NEW IBERIA ctl tr decmsnd.

•BELLINGHAM

50th Edition, December 10, 1964

Add circular restricted area CIR24 aprxly 1/10 n radius centered at 49°13′N, 122°54′W.

BIRMINGHAM
58th Edition, October 15, 1964

Delete River arpt 33°49′N, 88°19′W. Delete Lake ırdy Arpt 33°29′N, 86°37′W. Change Maxwell (AF))R freq. 116.0 to 110.2. Add obstn 1026′ MSL 32°41′57″ 85°40′54″W. Add obstn 600′ MSL 32°27′57″N, °07′30″W. Delete Montezuma arpt 32°18′N, 84°01′W. ·lete Cobb Airpark arpt 33°52′N, 84°35′W.

BOISE
40th Edition, May 28, 1964

Delete Dewitt Place arpt 43°28′N, 120°02′W. Delete yette FM 44°09′N, 116°55′. Delete Mountain Home f 43°12′N, 115°42′W.

●BOSTON
54th Edition, September 17, 1964

Change Kennebunk VOR freq 117.4 to 117.1. Revise area 1141 Boston, Mass. RBn to Yarmouth, Nova otia, Canada, LFR. Extend W–104 aprxly 5 mi NW 8 mi. E. Delete Braintree arpt 42°12′N, 71°02′W. d NASHUA RBn freq 260, ident AMH, class MHW 49′05″N, 71°35′35″W. Delete note "To be comm" for ANCHESTER VORTAC 42°52′N, 71°22′W.

●BURLINGTON
43rd Edition, November 12, 1964

Extend V196 airway from Utica to Plattsburgh via ica 016° & Plattsburgh 236°T. Extend V447 airway om Montpelier, Vt. to Sherbrook, P.Q. Canada via the : of Montpelier 020°T & Sherbrook 217°T. Montreal area extended E & NE to join Quebec ctl area. Add stn 610′ MSL 44°35′09″N, 75°09′30″W. Add obstn 459′ SL 44°05′40″N, 77°23′00″W. Change Massena VOR freq 2.1 to 114.1 Delete airway beacon code— —, 45°05′45″N, °35′10″W. Relocate OTTAWA VORTAC 45°26′32″N, °53′48″W revise airways & ctl area to new location.

●BUTTE
43rd Edition, February 4, 1965

No hazardous changes.

CASPER
48th Edition, October 15, 1964

Delete airway beacon site #14, code . . . . 42°50′00″N, 5°58′00″W. Delete airway beacon site #18 43°07′50″N, 6°20′20″W. Delete Sadler arpt 43°24′N, 104°54′W. De-te Cow Creek arpt 43°15′N, 104°41′W. Delete Thompson anch arpt 43°10′N, 104°36′W.

●CHARLOTTE SECTIONAL CHART
55th Edition, October 15, 1964

dd obstn 1057′ MSL 35°18′36″N, 80°22′31″W. Add bstn 1250′ MSL 34°03′00″N 78°04′56″W Change LORENCE VOR freq 115.5 to VORTAC freq 115.2 ch). Add TOCCA, GA transition area 5 mi W & 8 mi E ! the 360°T radial of TOCCA, GA VOR extending from e VOR to 12 mi N. Add obstn 913′ MSL 35°21′24″N, 79°46′42″W. Delete CLINTON arpt 35°01′N, 78°19′W. Delete FAYETTEVILLE RBn 34°56′N, 78°56′W. Add obstn 1333′ MSL 33°52′54″N, 83°17′02″W. Delete BAL-LOON AAF arpt 35°11′N, 79°00′W.

●CHATTANOOGA
55th Edition, February 4, 1965

No hazardous changes.

CHEYENNE
51st Edition, December 10, 1964

No hazardous changes.

●CHICAGO
59th Edition, December 10, 1964

Change Ft Wayne VORTAC freq 113.9 Ch 86 to 117.8 Ch 125. Delete Davis arpt 40°29′N, 88°57′W. Change Chicago O'Hare VORTAC freq 111.6 Ch 53 to 113.9 Ch. 86. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add Benton Harbor ctl zone 5 mi radius of ROSS arpt with 8 mi. extensions E & W. Add obst 1119′ MSL 42°05′30″N, 85°19′16″W. Delete PEOTONE arpt 41°20′N, 87°48′W.

●CINCINNATI
59th Editios February 4, 1965

No hazardous changes.

●CLEVELAND
59th Edition, November 12, 1964.

Delete Wheeling RBn 40°06′N, 80°11′W. Delete Tanger arpt 40°22′N, 83°47′W. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add obstn 1302′MS L 41°06′31″N, 83°36′02″W.

●CORPUS CHRISTI
54th Edition, February 4, 1965

No hazardous changes.

●DALLAS
60th Edition, February 4, 1965

No hazardous changes.

DEL RIO
40th Edition, November 12, 1964

No hazardous changes.

●DENVER
53rd Edition, December 10, 1964

Delete ELLICOTT RBn 38°49′N, 104°22′W.

DES MOINES
52nd Edition, November 12, 1964

Add obstn 1308′ MSL 40°13′29″N, 93°07′50″W. Add obstn 1210′ MSL 40°05′06″N, 93°37′31″W. Add obstn 1353′ MSL 41°59′18″N, 92°15′42″W.

DETROIT
58th Edition, January 7, 1965

Change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90.

DOUGLAS
42nd Edition, October 15, 1964

Delete Punta Penasco RBn freq 1688.

DUBUQUE
48th Edition, September 17, 1964

Add obstn 1240′ MSL 42°23′36″N, 92°19′30″W. Add obstn 1480′ MSL 43°19′25″N, 90°42′16″W. Add obstn 2449′ MSL 44°05′28″N, 91°20′15″W. Change Dubuque VOR freq 116.1 to 109.4. Change Polo VORTAC freq 113.8 Ch 85 to 117.1 Ch 118. Add obstn 1217′ MSL 42°11′10″ N, 91°58′40″W. Change obstn elevation 1531′ MSL to 1551′ MSL 43°10′06″N, 93°07′30″W. Delete Rochester ctl twr freq 278. Add obstn 1386′ MSL 43°57′50″N, 90°51′28″ W.

DULUTH
38th Edition, July 23, 1964

Delete Moberg SPB 47°29′N, 94°52′W. Add obstn 1735′ MSL 47°53′25″N, 91°52′04″W. Revise Chisholm-Hibbing ctl zone with extsn 8 mi SW. Revise Chisholm-Hibbing transition area with 3 extsns. 13 mi. wide, 18 mi. NE, 12 mi. SW & 18 mi NW of Chisholm-Hibbing arpt. Relocate Duluth RBn 46°50′45″N, 92°21′17″W. Delete Pine Haven seaplane base 46°43′N, 93°19′W. Add obstn 1835′ MSL 46°17′08″N, 96°02′06″W. Add transition area 4 nmi each side of a direct radial between Grand Rapids VOR & Hibbing VOR. Delete Duluth International ctl twr freq 278. Realign airway Blue 9 to new Duluth RBn location 46°50′45″N, 92°21′17″W. Add control zone extension W of Duluth International arpt 46°50′N, 92°11′W.

ELKO
43rd Edition, December 10, 1964

No hazardous changes.

EL PASO
52nd Edition, August 20, 1964

Delete McCombs No. 2 arpt 31°58′N, 104°41′W. Increase obstn 5448′ MSL to 5463′ MSL 31°38′42″N, 105°44′52″W. Delete Allison Ranch arpt 30°44′N, 102°02′W. Delete Columbus LFR 31°49′N, 107°35′W. Delete airway beacon site #39 31°49′N, 106°47′W. Change obstn elevation 5448′ MSL to 5463′ MSL 31°38′42″N, 105°44′52″W. Delete Laguna De Guzman SPB 31°18′N, 107°31′W. Delete Laguna De Santa Maria SPB 31°05′N, 107°15′W.

FARGO
41st Edition, August 20, 1964

Change Bismarck VOR freq 115.7 to 116.5. Change Red River VOR freq 108.8 to 116.7. Delete Petes Port arpt 48°01′N, 101°59′W. Add obstn 1337′ MSL 47°-54′18″N, 97°34′56″W. Delete Nelson arpt 46°51′N, 96°19′ W. Add obstn 1835′ MSL 46°17′08″N, 96°02′06″W.

GLACIER PARK
37th Edition, October 15, 1964

Delete Waterton Lake SPB 49°03′N, 113°54′W. A obstn 3355′ MSL 49°42′30″N, 112°43′00″W.

GRAND CANYON
39th Edition, December 10, 1964

No hazardous changes.

•GRAND JUNCTION
41st Edition, November 12, 1964

No hazardous changes. Change Hanksville VORT. freq 115.5 Ch 102 to 115.9 Ch 106. Delete airway bea site #50, code — — 39°06′N 112°42′W. Delete bea arpt beacon 39°23′N, 112°30′W.

GREEN BAY
50th Edition, December 10, 1964

Add obstn 1448′ MSL 44°33′13″N, 89°35′27″W. Del Lakeland (Private) RBn 45°55′N, 89°43′W. Add ob 1905′ MSL 45°52′52″N, 89°17′25″W. Add airway V19 from White Cloud to Traverse City via the int of Wh Cloud 329°T & Traverse City 235°T.

HAWAIIAN ISLANDS
17th Edition, December 10, 1964

Delete Maui LFR 20°38′N, 156°27′W.

•HUNTINGTON
53rd Edition, February 4, 1965

No hazardous changes.

•JACKSONVILLE
51st Edition, November 12, 1964

Add obstn 395′ MSL 31°49′59″N, 81°45′02″W. A obstn 546′ MSL 32°03′30″N, 81°02′40″W. Add ob 595′ MSL 31°35′24″N, 82°51′26″W.

•KANSAS CITY
55th Edition, February 4, 1965

No hazardous changes.

KLAMATH FALLS
51st Edition, September 17, 1964

Twr comsnd at Mahlon Sweet arpt freqs 118.9 & 2 In northern border change Redmond VORTAC freq 1 to 117.6 Ch 123. Delete airway bcn site no 34 code . . 42°27′N, 123°03′W. Delete Lake of Woods arpt 42°2 122°12′W. Delete Beaver Marsh (FAA) bcn site no code . . . . 43°08′N, 121°49′W.

•KOOTENAI
41st Edition, February 4, 1965

No hazardous changes.

•LA GRANDE
42nd Edition, February 4, 1965

No hazardous changes.

•LAKE HURON

39th Edition, May 28, 1964

Extsv airway changes have been made in the SE rner of chart. Add obstn 1083′ MSL 44°50′N, 79°20′W. dd obstn 1100′ MSL 44°17′N, 78°42′W. Add obstn 07′ MSL 35°40′N, 79°13′W. Add obstn 1831′ MSL 23′N, 78°59′W. Add obstn 1856′ MSL 45°07′N, 30′W. Add obstn 1207′ MSL 45°03′N, 83°43′W. hange obstn 1600′ MSL to 1800′ MSL 44°20′N, 78°18′W. hange Wurtsmith AF VOR freq 110.0 to 116.1. Add leinburg VOR freq 114.5 ident KG, class VORW, M.V. W 43°56′N, 79°40′W. Delete Toronto LFR legs, ident Z. Alpena, Mich. ctl area is revoked. Alpena, Mich. ansition area designated 21 mi. radius of Phelps-Collins pt. with 8 mi. extsn N. Realign V300 airway direct om KLEINBURG to WIARTON & KLEINBURG to TTAWA.

•LAKE SUPERIOR

40th Edition, August 20, 1964

Add obstn 1695′ MSL 46°52′35″N, 88°54′09″W. Add stn 1891′ MSL 46°05′41″N, 88°21′50″W. Change KI wyer (AF) VOR freq 112.5 to 117.5. Revise Hough- n, Mich. ctl zone adding 3 extsn. 4 SM wide, 3 SM ng. extending NW, NE & SE Houghton, Mich. ctl ea is revoked. Transition area designated 10 NM dius Houghton VOR with extsns NE & SE. Add obstn 9′ MSL 46°59′00″N, 84°51′50″W. Change GROS CAP Bn freq 316 to 286. Add obstn 1768′ MSL 46°35′15″N, 33′46″W. Delete LAKELAND (Pvt) RBn 45°55′N, 43′W.

LAKE OF THE WOODS

37th Edition, August 20, 1964

Add V129 airway direct International Falls to Kenora. dd obstn 1942′ MSL 48°49′00″N, 93°53′00″W. Add V129 rway direct Kenora VOR to Kenora LFR.

•LEWISTON

42nd Edition, November 12, 1964

Extend V447 airway from Montpelier, Vt. to Sher- ook, P.Q. Canada via the int of Montpelier 020°T & HERBROOK 217°T. Extend W–102 aprxly 5 mi. NW. dd V 314 airway direct from MILLINOCKET to UEBEC (318° M MILLINOCKET).

•LINCOLN

51st Edition, October 15, 1964

Add obstn 3034′ MSL 41°40′54″N, 97°52′38″W. Add stn 2293′ MSL 41°23′37″N, 98°15′14″W. Add obstn 38′ MSL 42°02′39″N, 98°02′01″W.

•LITTLE ROCK

47th Edition, January 7, 1965

Change CABOT VOR freq & ident 109.2 LRF to 108.4 BT. Add obstn 1080′ MSL 35°35′48″N, 95°03′20″W. elete WATTS arpt 34°06′N, 90°51′W.

•LOS ANGELES SECTIONAL CHART

58th Edition, August 20, 1964

Delete PORTER RANCH arpt 36°02′N–118°06′W. Realign V237 airway direct from NEEDLES to BOULDER. Change V25 airway brg 242°M to 246°M from Los Angeles. Change Long Beach ctl twr freq. 120.2 to 120.5. Delete Famoso FM 35°06′N, 119°09′W. Add Riverside ctl zone 3 mi radius of arpt with extension NW. Change Palmdale freq 112.2 to 145.5 & delete Ch 59. Delete airway beacon site #1A 34°08′N, 118°17′W. Delete Los Angeles Intnl ctl twr freqs 278. Delete airway beacon site #3, code ●●●— 34°10′N, 118°54′W. Delete airway beacon site #6, code —●— 34°20′N, 119°52′W. Delete Millers Ranch arpt beacon 34°43′N, 117°55′W. Delete George RBn 34°37′N, 117°23′W. Change Mc Carran ctl twr. freq 275.8 to 257.8.

MIAMI

50th Edition, September 17, 1964

Add obstn 276′ MSL 27°05′34″N, 80°27′01″W. Add obstn 457′ MSL 28°03′02″N, 81°47′58″W, Add Melbourne RBn freq 257, ident MLB, class HW, 28°05′57″N, 80°-42°04′W. Delete St. Petersburg Clearwater Intnl ctl twr freq 317. Change Sarasota–Bradenton VOR name to Sarasota. Delete Sarasota Bradenton ctl twr freq 272. Delete Tampa Intnl ctl twr freq 278. Add obstn 428′ MSL 28°04′26″N, 81°40′52″W. Add obstn 510′ MSL 27°32′30″N, 81°29′35″W.

MILES CITY

42nd Edition, October 15, 1964

Delete Solseth arpt 46°02′N, 102°52′W. Delete Nelson arpt 47°57′N, 102°49′W.

•MILWAUKEE

57th Edition, December 10, 1964

In eastern border change Salem VOR freq 117.8 ch 125 to 114.3 ch 90. Change Chicago Ohare VOR freq 111.6 Ch 53 to 113.9 ch 89. Add obstn 1119′ MSL 42°05′30″N, 85°19′16″W. Add BENTON HARBOR MICH ctl zone 5 mi radius of ROSS FIELD arpt 42°07′45″N, 86°25′45″W with 8 mi extsns E & W. Add MADISON WISC ctl zone extsn from 5 mi radius zone of TRAUX FIELD arpt to 7 mi N of VOR.

•MINOT

40th Edition, September 17, 1964

Add obstn 1337′ MSL 47°54′18″N, 97°34′56″W. Delete Petes Port arpt 48°01′N, 101°59′W. Delete beacon, course lights & code at 49°55′N, 97°35′W and 49°58′N, 98°50′W. Delete SVEUM arpt 48°40′N, 101°02′W. Add obstn 1849′ MSL 49°46′15″N, 97°30′35″W.

•MOBILE

56th Edition, February 4, 1965

No hazardous changes.

•MT. SHASTA

52nd Edition, November 12, 1964

Delete LORENZ LUMBER arpt 41°00′N–121°37′W. Delete GOOSE VALLEY RANCH arpt 40°56′N–121°41′W.

•MT. WHITNEY

54th Edition January 7, 1965

Add VISALIA VOR freq 109.4 ident VIS class TVOR MV 16°E 36°22′04″N–119°28′52″W.

NASHVILLE

54th Edition, January 7, 1965

No hazardous changes.

•NEW ORLEANS

56th Edition, September 17, 1964

Delete Bayou Boeuf SPB 29°41′N, 91°06′W. Delete Hodson arpt 29°40′N, 90°35′W. Delete Saltzman arpt 29°57′N, 92°27′W. Add obstn 329′ MSL 30°35′47″N, 91°31′47″W. Add 2 obstns 467′ MSL 29°59′20″N, 90°27′45″W & 30°00′35″N, 90°27′22″W. Change obstn 315′ MSL to 402′ MSL 29°38′46″N, 90°05′54″W. Delete Lake Charles ctl twr freq 109.1. Change obstn 1044′ MSL to 1244′ MSL 30°02′38″N, 92°22′17″W. Add obstn 435′ MSL 30°07′57″N, 94°18′55″W. Add obstn 325′ MSL 30°29′40″N, 89°49′47″W. Add obstn 265′ MSL 30°10′00″N, 93°36′08″W. Add obstn 260′ MSL 30°06′35″ N, 92°47′37″W. NAAS NEW IBERIA ctl twr deemsnd.

•NEW YORK

61st Edition, October 15, 1964

Change Clermont VOR freq 114.3 to 117.6. Change Riverhead VORTAC freq 113.2 Ch 79 to 117.2 Ch 119. In norther border change Chester VOR freq 108.6 to 117.3 Delete Rentschler ctl twr freq 271. Delete Sunset arpt 39°59′N, 77°38′W. Correct Deer Park VORTAC code

—●● —●●
—●—● to ●——● Add obstn 367′ MSL 41°06′33″N,
—●— —●—●

72°22′06″W. Change Delancey VOR freq 109.6 to 112.1. Delete bcn from Scranton arpt 41°29′N, 75°46′W. Change Binghamton VORTAC freq 114.1 Ch 88 to 114.3 Ch 90. Add obstn 1462′ MSL 40°49′20″N, 74°33′24″W.

•NORFOLK

55th Edition, September 17, 1964

Add obstn 1049′ MSL 37°30′46″N, 77°36′06″W. Add obstn 1250′ MSL 34°03′00″N, 78°04′56″W. Change Cherry Point VOR freq 116.1 to 113.6. Delete freq 137.65 from R–5312 Seymour Johnson AFB Military Climb Corridor. Change New Bern RBn Freq 299 to 379. Extend R–6601 aprxly 2 mi W. Delete Point Lookout RBn & FM 38°02′24″N, 76°19′16″W. Revise Elizabeth City ctl zone adding 2 extsns 10 mi NE &SW. Add obstn 545′ MSL 37°41′52″N, 77°33′07″W. Change Flat Rock VORTAC freq 112.1 ch 58 to 113.3 ch 80. Change Langley (AF) VOR freq 113.2 to 111.6. Add obstn 388′ MSL 36°46′26″N, 76°35′20″W. Change Patrick Henry ctl twr freq 257.8 to 256.9. Add R–5314 35°54′50″N, 76°35′30″W; 35°43′50″N, 76°35′30″N 35°34′40″N, 75°46′50″W; 35°48′-30″N, 75°43′40″W. Change HOPEWELL VORTAC freq 117.3 Ch 120 to 112.0 Ch 57. Add obstn 385′ MSL 37°22′58″N, 77°25′32″W.

•OKLAHOMA CITY

56th Edition, November 12, 1964

Add obstn 2749′ MSL 35°34′07″N–97°29′20″W. Ac BORGER TEX ctl zone 5 mi radius of HUTCHINSO CO arpt 35°41′55″N, 101°23′40″W. with extsns N & S.

•ORLANDO

52nd Edition, November 12, 1964

Delete Strickland arpt 28°52′N, 81°57′W. Add obs 457′ MSL 2803′02″N, 81°47′58″W. Delete NAS Sanfo ctl twr freq 296. Add obstn 506′ MSL 28°22′53″N, 8 36′30″W. Add obstn 344′ MSL 28°20′58″N, 80°47′23″ Add obstn 522′ MSL 28°30′01″N, 80°34′52″W. Add obs 428′ MSL 28°04′26″N, 81°40′52″W. Add obstn 420′ M 28°33′33″N, 81°32′40″W. Delete St. Petersburg-Cle WATER INTNL ctl twr freq 317. Delete TAMPA INT ctl twr freq 278. Delete SLADE arpt 28°42′N, 81°22′ Add obstn 849′ MSL 29°42′34″N, 82°23′34″W. Ac obstn 533′ MSL 28°35′09″N 80°39′06″W.

•PHOENIX

52nd Edition, January 7, 1965

Delete REX WILLIAMS arpt 33°30′N, 112°15′W. E tend R–2308 aprxly 5 SMIS E.

•POCATELLO

48th Edition, October 15, 1964

Delete CROWHEART BUTTE arpt 43°16′N, 109°06′ Delete POCATELLO ctl twr freq 278. Add V465 airw direct from DUNOIR to BILLINGS (013°M DUNOIR

•PORTLAND

52nd Edition, February 4, 1965

No hazardous changes.

PRESCOTT

42nd Edition, September 17, 1964

Delete Gray Mountain arpt 35°44′N, 111°29′W Dele Drake VOR 34°54′N, 112° 25′W Add V 291 airway fro Winslow to Peach Springs.

RAPID CITY

41st Edition, December 10, 1964

No hazardous changes.

RENO

43rd Edition, January 7, 1965

No hazardous changes.

•ROSWELL

52nd Edition, January 7, 1965

Add obstn 4231′ MSL 31°54′54″N, 106°23′34″W.

•SACRAMENTO

53rd Edition, January 7, 1965

Delete BEST arpt 38°46′N, 121°46′W. Delete note "T be comm" for SANTA ROSA VOR 38°31′N, 122°49′W Delete VARNEY arpt 39°38′N, 122°13′W.

SALINA

51st Edition, September 17, 1964

Add obstn 2485′ MSL 38°03′26″N, 99°22′13″W. hange obstn 2875′ MSL to 2880′ MSL 38°25′54″N, 96°18″W. Add Manhattan (Pvt) RBn freq 391, ident HK, class HW 39°06′55″N, 96°37′30″W.

●SALT LAKE CITY

50th Edition, December 10, 1964

Delete HOWELL arpt 41°46′N, 112°27′W.

●SAN ANTONIO

55th Edition, January 7, 1965

Delete FOAKUM arpt 29°19′N, 97°14′W.

●SAN DIEGO

56th Edition, August 20, 1964

Delete Borrego Palms arpt 33°16′N, 116°23′W. Delete rrey Pines arpt 32°54′N, 117°14′W. Delete Los An- les Intl ctl twr freq 278. Delete Orange Co. ctl twr eq 326. Change NAAS Ream ctl twr freq 340.2 to 14. Delete Banning FM 33°55′N, 116°51′W. Delete ramar RBn 31°53′N, 117°03′W. Change El Centro ORTAC name to Imperial & ident ELC to IPL. Add lm Springs VOR freq 115.5 ident PSP, class L–VOR, V 15°E 33°52′12″N, 116°25′43″W. Delete Oceanside Bn 33°14′N, 117°24′W. Add Riverside ctl zone 3 mi dius of arpt with NW extsn. Delete MT WOODSON Bn 33°00′N, 116°58′W. Delete CARLSBAD arpt °10′N, 117°19′W. Delete TORREY PINES arpt °54′N, 117°15′W. Delete NAS NORTH ISLAND ctl r freq 3285. Delete LOS ANGELES INTNL ctl twr eq 125.8.

●SAN FRANCISCO

56th Edition, January 7, 1965

Delete airway beacon site #21 code ● — — 36°04′N, 0°59′W.

●SAVANNAH

56th Edition, September 17, 1964

Delete Estill arpt 32°43′N, 81°15′W. Delete Santee oper arpt 33°33′N, 80°26′W. Add obstn 473′ MSL °02′53″N, 81°59′08″W. Add obstn 631′ MSL 32°- 1′15″N, 83°01′48″W. Add obstn 700 MSL 32°09′56″N, °40′33″W. Add obstn 750′ MSL 32°32′42″N, 82°- °54″W. Add obstn 830′ MSL 33°14′29″N, 82°41′46″W. dd obstn 835′ MSL 32°50′52″, 83°20′22″W. Add obstn 50′ MSL 34°03′00″N, 78°04′56″W. Delete Columbia l twr freq 335. In northern border change Florence ORTAC freq 115.5 to 115.2 ch 99. Delete Montezuma pt 32°18′N, 84°01′W. Relocate AUGUSTA RBn °28′N, 81°59′W. Delete CHARLESTON AFB/MUN ltw r freq 278. Add obstn 1333′ MSL 33°52′54″N, °17′02″W.

●SEATTLE

56th Edition, December 10, 1964

Add obstn 526′ MSL 47°05′53″N, 122°35′41″W. Add stn 421′ MSL 47°12′19″N, 122°16′11″W. Delete Ever- REEN arpt 47°18′N, 122°19′W. Delete airway beacon te #61B, code ● — — 46°11′N 122°54′W.

●SHREVEPORT

48th Edition, January 7, 1965

Delete MARSHALL VOR 32°27′N, 94°15′W. Delete HARRISON CO arpt beacon 32°31′18″N, 94°18′30″W. Add obstn 932′ MSL 33°08′03″N, 96°07′35″W. Add PARIS TEX ctl zone 5 mi radius of COX FIELD arpt 33°38′17″N, 95°26′54″W with S xtsn.

●SIOUX CITY

40th Edition, November 12, 1964

Delete Madison arpt 44°01′N, 97°03′W. Add obstn 1902′ MSL 42°05′24″N, 97°01′00″W. Add obstn 2288′ MSL 42°02′39″N, 98°02′01″W. Delete SIOUX CITY RBn 42°22′N, 96°21′W.

SPOKANE

50th Edition, December 10, 1964

No hazardous changes.

●TRINIDAD

40th Edition, Sepetember 17, 1964

Add V211 airway via 270°M from Durango. Add V421 airway Farmington to Durango to Gunnison. Delete Hermit Lakes arpt 37°49′N, 107°13′W. Add obstn 4290′ MSL 37°55′27″N, 107°13′W. Delete Clayton VOR 36°23′N, 103°13′W. Add Durango, Colo ctl zone 5 mi radius of arpt. Revise DALHART ctl zone to include airspace 5 mi radius of DALHART arpt 36°01′10″N, 102°33′10″W.

●TULSA

54th Edition, October 15, 1964

Delete Sky Haven arpt 36°46′N, 91°53′W. Delete Waynesville Mem arpt 37°49′N, 92°11′W. Add obstn 663′ MSL 36°03′40″N, 90°57′15″W. Add obstn 1350′ MSL 37°50′59″N, 94°22′22″W. Delete Golf Ranch arpt 36°38″N 93°11′W. Add obstn 799′ MSL 36°19′49″N, 90°- 17′04″W. Add obstn 25°49′ MSL 35°58′08″N, 95°36′55″ W. Add obstn 1465′ MSL 38°02′26″N, 91°30′53″W. Add INDEPENDENCE (Pvt) RBn freq 400 ident IDP class MHW 37°09′36″N, 95°46′30″W. Add PARSONS TEX transition area 6 smi radius of TRI-CITY arpt 37°30′00″ N, 95°30′30″W with 13 mi wide extsn to 12 mis N of arpt.

TWIN CITIES

49th Edition, November 12, 1964

Add obstn 1531′ MSL 45°01′32″N, 93°02′38″W. Add obstn 1363′ MSL 45°02′46″N–93°11′47″W.

●WASHINGTON

60th Edition, October 15, 1964

Change Kenton VORTAC freq 114.8 Ch 95 to 116.8 Ch 115. Change Sea Isle VORTAC freq 115.2 Ch 99 to 114.8 Ch 95. Delete Point Lookout RBn & FM 38°- 02′24″N, 76°19′16″W. Delete Sunset arpt 39°59′N, 77°38′ W. In southern border change Flat Rock VORTAC freq transition area 6 smi radius of TRI-CITY arpt 37°20′00″ 112.1 ch 58 to 113.3 ch 80. Correct Woodstown ident ODD to OOD. Change Millville VOR freq 115.8 to 115.2. ALF WEBSTER (NAVY) ctl twr decmsnd. Correct

NEW CASTLE VORTAC code ●—●—● to ●—●—● Add obstn 345′ MSL 39°22′42″N, 74°26′53″W. Delete DELAWARE VALLEY arpt 39°51′N, 75°00′W. In southern border change HOPEWELL VORTAC freq 117.3 Ch 120 to 112.0 Ch 57.

●WICHITA

53rd Edition, January 7, 1965

Delete #4 arpt symbol 37°03′N, 101°05′W. Add LIBERAL KAN ctl zone 5 mi radius of LIBERAL MUN arpt 37°02′30″N, 100°57′30″W with extsns NW N SE & SW. Add LIBERAL KAN transition area 15 smi radius of LIBERAL MUN arpt 37°02′30″N, 100°57′30″W.

WILLISTON

38th Edition, July 23, 1964

Delete Petes Port arpt 48°01′N, 101°59′W. Add obstn 2125′ MSL 49°43′15″N, 104°01′00″W. Add obstn 2690′ MSL 49°42′10″N, 106°03′05″W. Add obstn 2735′ MSL 49°38′40″N, 105°59′30″W. Add obstn 2930′ MSL 49°-26′45″N, 107°00′45″W. Add obstn 3150′ MSL 50 00′30″N, 107°45′00″W. Add Moose Jaw term ctl ar within a 50 SM radius of Moose Jaw arpt 50°20′ 105°33′W.

●WINSTON-SALEM

54th Edition, October 15, 1964

Change Bluefield VOR freq 113.3 to 115.4. Add H Springs (Pvt) RBn freq 224, ident HSP, class H 37°57′00″N, 79°49′30″W. In northern border chan Charleston W.Va. VORTAC freq 115.4 Ch 101 to 117.4 (121. Change Flat Rock VORTAC freq 112.1 ch 58 to 11 ch 80. Delete Clarksville–Finchley arpt 36°40′N, 78°29′ In western border change Lexington VORTAC freq 11 ch 106 to 117.0 ch 117. Delete London RBn 37°05′25″ 84°04′30″W. Add obstn 707′ MSL 38°02′54″N, 78°28′1 W.

●YELLOWSTONE PARK

40th Edition, September 17, 1964

Delete West Yellowstone arpt 44°40′N, 111°07′W. southern border change Boysen Reservoir VORTAC fr 114.9 Ch 96 to 117.8 Ch 125. Add V465 airway dire from DUNOIR to BILLINGS.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

'BILE, BROOKLEY AFB RDO: VOR unusable be- w 2000' MSL beyond 30 nmi due reduced coverage.

ARIZONA

'KEYE RDO: VOR unusable below 7000' MSL be- nd 40 nmi 320–345° acct reduced coverage.

'HISE RDO: VORTAC unusable beyond 40 nmi be- w 12,500' MSL 175–240°, 090–145° below 10,500' ISL 040–090°. Below 14,000' MSL 360–040°.

ACH SPRINGS RDO: VORTAC unusable below 0,00' MSL beyond 40 nmi from 195-230° account educed coverage.

OENIX RDO: VORTAC azimuths unusable beyond 0 nmi below 10,000' MSL 152–165° and 200–210° and eyond 6 nmi below 7000' MSL 078–125° acct crs oughness.

ESCOTT RDO: VORTAC unusable beyond 40 nmi elow 11,000' MSL 145–155° and 175–200°; below 7,000' MSL 200–225°; below 12,000' MSL 225–235° ccount crs roughness. VOR excessive crs vagaries ithin 30 nmi from FL 240 thru 410 rely on To-From ndicator for stn passage. Disregard VOR momentary xcursion of crs 055° thru 070° 14 to 18 nmi all alts ue terrain reflections.

N SIMON RDO: VORTAC unusable beyond 40 nmi elow 15,000' MSL 145-190°; below 14,000' 190–255°; elow 10,500' MSL 350–145° account reduced coverage.

'SON RDO: TACAN unusable beyond 6 nmi below 4,500 MSL 240–295° account crs roughness. VORTAC nusable beyond 40 nmi below 15'000 MSL from 320- 45°; below 16,500' MSL 045–065°; below 15,000' ISL 065–080°.

MA RDO: VORTAC unusable beyond 40 nmi below 000' MSL 280–300°.

ARKANSAS

T SPRINGS RDO: VOR rads unusable below 3500', eyond 20 mi due roughness and scalloping.

CALIFORNIA

ENAL RDO: TACAN unusable beyond 40 nmi below 000' MSL 320–065° below 4000' MSL, 065°–095° be- ow 4500' MSL, 095-125° below 8500' MSL, 125–170° elow 7500' MSL, 170–198° below 7000' MSL, 195– 30° below 8000' MSL, 230–305° below 8000' MSL.

ATHE RDO: VORTAC unusable beyond 40 nmi below 000' MSL 324–018° below 9000' MSL 189–217°, be- ow 10,000' MSL 175–189°, below 15,000' MSL 277– 24°.

EVERGREEN RDO: H fac unusable btn 360–120° clock- wise.

FILLMORE RDO: VORTAC unusable beyond 40 nmi 13,000' and below 280–290° and 14,000' and below 290–350°

FORT JONES RDO: LFR E crs unreliable account multiples.

FRESNO RDO: TACAN portion of VORTAC unusable below 4000' MSL 200–250°.

GOFFS RDO: VOR unusable beyond 40 nmi below 11,000' MSL 265-290° and 15,000' MSL 290-310° acct reduced coverage.

GORMAN RDO: VORTAC unusable beyond 40 nmi be- low 15,000 MSL 265-310° below 10,500' MSL 350– 040°; below 5500' MSL 125–155°; below 10,500' MSL 155–170° below 14,000 MSL 170–219°; below 31,000' MSL 219-250°; below 25,000' MSL 250–265° acct re- duced coverage.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mor- mon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boun- dary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/ Salt Lake City boundary. J9/J107, FL 180-230 in- clusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/ Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/ Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.

LOS ANGELES RDO: VORTAC unusable beyond 40 nmi below 6000' MSL from 135–180°, below 7000' MSL from 268-290°. V-201 011° rad beyond 20 nmi below 9000' MSL. DME portion unusable beyond 40 nmi below 3500' MSL from 180–210° acct reduced cover- age.

NAPA RDO: TACAN unusable beyond 40 nmi below 7500' from 280–045°.

NEEDLES RDO: VORTAC unusable below 11,500' MSL beyond 40 nmi from 170 to 220° account reduced cov- erage.

OAKLAND RDO: H facil unusable beyond 25 nmi 094– 124°. TACAN unusable beyond 20 nmi below 3700' MSL 045–330°; below 4500' MSL 330–045°; beyond

40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 9000′ MSL 005–060°.

ONTARIO RDO: VOR unusable below 14,000′ MSL beyond 40 nmi from 200 to 140° account reduced coverage.

PALMDALE RDO: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°.

PALM SPRINGS RDO: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259–277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER RDO: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150° acct reduced coverage.

POINT REYES RDO: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA RDO: VOR unusable beyond 37 nmi on the 073° rad and beyond 40 nmi below 14,500′ MSL 270–330° below 18,000′ MSL 330–360° below 22,000′ MSL 360–035° below 14,500′ MSL 035–045° below 8000′ MSL 070–140° below 7000′ MSL 140–270° acct reduced coverage.

PORTERVILLE RDO: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180° account reduced coverage.

RED BLUFF RDO: VOR unusable below 3500′ MSL 280–300° acct crs scalloping.

RIVERSIDE RDO: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°. VOR will be shutdown for mod.

RIVERSIDE, MARCH AFB RDO: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°. Vail Lake VOR ident VLK limited to 30 nmi radius above 8500′ from 200–320° above 12,000′ from 070 to 320° above 13,000′ from 200–070°

SALINAS RDO: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO RDO: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. TACAN unusable from 300–335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300–320° acct roughness.

SAN FRANCISCO RDO: H facility unusable beyond 15 mi from 130°–160° clockwise.

SAN FRANCISCO GAP RDO: FM unusable below 2000′ MSL.

SAN JOSE RDO: VOR unusable beyond 20 nmi below 8000′ MSL 360-040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SANTA ANA, EL TORO MCAS RDO: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA RDO: VOR unusable beyond 40 nmi below 11,000′ MSL 050-265°. Not certified within Warning Area 289.

SAUSALITO RDO: VORTAC unusable 300–313° bey 10 mi below 12,000′.

THERMAL RDO: VORTAC azimuths unusable bey 40 nmi 015–040°, 13,000′ MSL; 060–040°, 12,000′ M 060–085°, 8000′ MSL; 150-200°, 15,000′ MSL; 2 250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS RDO: VORTAC azimuth usable 010–035°; 13,000′; 100–120°. 11,500′; 120-2 10,500′ beyond 40 nmi.

VAIL LAKE RDO: VOR unusable beyond 30 nmi bel 8500′ from 200–320° below 12,000′ from 320–070° low 13,000′ from 200–070°.

WOODSIDE RDO: VORTAC unusable below 5000′ M beyond 30 nmi 190°–260° and beyond 20 nmi 260-3 unusable beyond 10 nmi below 4000′ 360–050°.

COLORADO

ALAMOSA RDO: VORTAC unusable beyond 40 nmi low 18,000′ MSL from 025–045° and below 13,5 MSL 150–165° acct reduced coverage.

COLORADO SPRINGS RDO: VOR unusable bel 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 90 MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ M 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi a reception VORTAC (COS) unusable beyond 40 r below 15,200′ MSL, 300–340°; below 14,300′ MSL, 3 005°; below 13,200′ MSL, 005–020°; below 12,1 MSL, 020–030° acct reception.

DENVER RDO: Efctv immediately J-20, Denver, C VORTAC to Gage, Okla. VORTAC changeover po 145 nmi from DEN VORTAC. Continuous navigait signal coverage does not exist over entire route s ment 27,000′.

HANOVER RDO: H facil bearings unreliable beyond nmi in shadow area of Pikes Peak

CONNECTICUT

BRIDGEPORT RDO: VOR unusable beyond 10 n from 265° clockwise to 280°; beyond 6 nmi 290-3 beyond 20 nmi 315–340° at MOCA. VOR unusable yond 18 nmi below 7000′ MSL 200–215°.

GROTON RDO: H facil unusable beyond 15 nmi.

NEW HAVEN RDO: VOR unusable beyond 20 nmi MOCA.

WINDSOR LOCKS RDO: TACAN unusable below 35 MSL beyond 35 nmi 090° to 290° due both azimu and distance unlocks.

DISTRICT OF COLUMBIA

WASHINGTON RDO: DCA VOR unusable beyond nmi 010–045°; beyond 10 nmi 045–055°; beyond nmi 055–070°; beyond 20 nmi 070–180°; beyond 32 n 180–210°; beyond 30 nmi 210–260°; beyond 20 n 260–300° beyond 35 nmi 300–340° account roughn and scalloping. Change over point established 16 n from Baltimore VOR on V–157.

FLORIDA

KEY WEST RDO: VOR unusable below 14,500 fr 095–340° beyond 15 nmi.

LAKELAND RDO: VOR unusable below 18,000′ M except the published apch and airway radials a reported crs displacements.

GEORGIA

UGUSTA RDO: VOR unusable 357–002° acct roughness. V185 tmprly authorized 180° rad Greenwood to Augusta VOR. MEA 2300′ MSL due restriction.
OLUMBUS, LAWSON AAF RDO: VOR unusable beyond 17 nmi.
LTON RDO: VOR unusable all radials except 220–250° acct roughness.
ACON RDO: FSS freqs 122.2, 126.7, 255.4 unusable below 2500′ in SE quad beyond 35 mi.
OME RDO: VOR rads 124–134° unusable account roughness.

IDAHO

OISE RDO: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050° account reduced coverage.
RLEY RDO: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150° acct reduced coverage.
EWISTON RDO: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.
LLAN PASS RDO: H facil momentary ADF disturbance may be experienced within 15 nmi stn 230–280°. VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 230–310°.
OCATELLO RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120° acct reduced coverage.
WIN FALLS RDO: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150° acct reduced coverage.

ILLINOIS

AMPAIGN RDO: TACAN radials 231–239° unusable below 14,000′.
HICAGO O'HARE RDO: VOR unusable 060–072°, 160–190°, 290–305°, 340–360°. DME unusable 004–014°, 135–158°, 285–315°, 340–350°.
HICAGO HEIGHTS RDO: VOR portion unusable beyond 20 nmi below 8000′ MSL 330–350°.
ECATUR RDO: VOR unusable above 12,000′ MSL beyond 40 nmi E due to freq interference with RID VOR.
LIET RDO: VOR unusable 040-070° below 3000′ MSL beyond 35 nmi.
OTONE RDO: VOR 341–010° rads unusable beyond 33 mi below 3000′ MSL

INDIANA

OX RDO: VOR coverage restricted to 37 nmi at MEA. Possible interference btn Mansfield, Ohio and Knox VOR above 10,000′ MSL beyond 45 nmi E of Knox VOR.

IOWA

OLA RDO: Voice comms with Omaha, Nebr FSS unusable below 4500′ on V–172 and V–172N btn 20 and 46 nmi E VORTAC, excp rcvr 122.1 and tsmts 117.1 mc.
ATERLOO RDO: DME portion of VORTAC unusable beyond 15 nmi at all alts 355–005° account unreliable crs and distance indications. Not to be used for apchs to rnwy 18 acct roughness.

LOUISIANA

SHREVEPORT-DOWNTOWN RDO: VOR unusable 070 100° and 180-280°.

MAINE

MILLINOCKET RDO: VOR unusable beyond 35 nmi 330–340° at MOCA.

MARYLAND

FREDERICK RDO: VOR unusable below 2000′ beyond 25 nmi from 055–190°.
PATUXENT RDO: VOR unusable below 1500′ MSL; beyond 35 nmi from 245–300° acct reduced coverage.
SNOW HILL RDO: VOR unusable below 1500′ beyond 12 nmi 315-005°/ below 1500′ beyond 25 nmi 005-020° and below 1300′ beyond 20 nmi 210–225° acct roughness. Changeover point on V–139 btn Snow Hill and Cape Charles 20 mi SW Snow Hill.

MASSACHUSETTS

BEDFORD RDO: VOR unusable below 3000′ MSL beyond 10 nmi 270–225° and below 13,000′ MSL beyond 10 nmi 225–270°.
BOSTON RDO: VOR unusable beyond 26 nmi all azimuths at MOCA.
SHUTESBURY RDO: VOR ident SHT freq 109.2 for use only with published procedures. Not for use as enroute navaid.
WESTFIELD RDO: VOR unusable beyond 35 nmi from 270° clockwise to 320° at MOCA.

MICHIGAN

BATTLE CREEK RDO: TACAN rads 275 thru 290° unusable 13,500′ MSL and below beyond 15 nmi due crs roughness.
CARLETON RDO: TACAN portion of VORTAC unusable beyond 12 nmi below 4500′ MSL 335–345° acct roughness.
FLINT RDO: VORTAC unusable 300-320° beyond 6 nmi below 10,000′ account roughness and unlocks. TACAN azimuth unusable 320-030° beyond 6 nmi, below 10,000′ account roughness and unlocks.
GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00′48″, long 84–41′30″, Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1).
MARQUETTE RDO: VOR unusable 200–335° below 2900′ beyond 25 mi; 335–350° below 2900′ beyond 30 mi; 200–350° below 4400′ beyond 40 nmi.
MT. PLEASANT RDO: Non-Federal VOR operg 24 hrs daily VFR use only. Class: L–BVOR Freq: 109.8 mc. Ident: MOP. Lctd lat 43°37′, long 84°44′. Monitoring category (1) Rcvg 122.1 and 126.7 mc.
WHITE CLOUD RDO: VOR unusable below 2000′ from 360–090° clockwise beyond 35 mi.

MINNESOTA

INTERNATIONAL FALLS RDO: H facility shutdown UFN.
WINONA RDO: VOR unusable as enroute IFR aid.

MISSOURI

KANSAS CITY RDO: Riverside VOR unusable beyond 15 mi below 2400′ MSL; beyond 30 mi below 4000′; 125–170°, 252–260° and 300–310° unusable all distances and alts.

MARYLAND HEIGHTS RDO: VOR coverage restricted to 35 nmi from 150° clockwise to 219° at MEA.

MONTANA

BOZEMAN RDO: VOR unusable beyond 40 nmi below 20,000′ MSL 010–035°; below 18,000′ MSL 035–090° acct reduced coverage.

BUTTE RDO: VOR unusable beyond 40 nmi below 15,000′ MSL 005 thru 030°. 13,000′ MSL 030 thru 075°; 15,000′ MSL 160 thru 230°; 11,000′ MSL 355 thru 005° acct reduced coverage.

DILLON RDO: VORTAC unusable beyond 40 nmi below 11,000′ MSL from 340–350° below 9000′ MSL 010–020°; below 12,000′ MSL 020–040°; below 14,000′ MSL 040–080°; below 12,000′ MSL 080–090°; below 14,000′ MSL 090–130° below 18,000′ MSL 130–145° account reduced coverage.

DRUMMOND RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 055–070°, below 14,000′ MSL from 110–125°, below 17,000′ MSL from 125–150°, below 13,000′ MSL from 150–210°, below 14,000′ MSL from 210–270°, below 12,000′ MSL from 270–055° acct reduced coverage. Possible momentary flag activity on V–2 nine miles E of Drummond VOR. Verify station passage by to/from indication.

GLASGOW AFB RDO: USAF VOR unusable for civil use below 6800′ MSL beyond 10 nmi 235–245° account crs roughness.

HELENA RDO: VOR unusable beyond 40 nmi below 10,000′ MSL 360–065°; 11,000′ 065–090°; 16,000′ 110–120°; 18,000′ 120–180°; 17,000′ 180–205°; 14,000′ 205–220°; 12,000 220–240; 11,000′ 240–305°; 10,000′ 305–320° account reduced coverage.

MISSOULA RDO: VORTAC unusable beyond 15 nmi 345–060°; beyond 22 mi 060–095°; below 10,000′ beyond 20 mi 095–165°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 285–315°; not usable 315–345° beyond 34 mi, TACAN below 14,000′ VOR below 11,000′, acct reduced coverage. Possible momentary VOR flag activity on V–2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL RDO: VOR unusable below 14,500′ MSL beyond 30 nmi from 000–040°; below 12,000′ MSL beyond 30 nmi from 041–055°; below 14,500′ MSL beyond 30 nmi 120–160°; below 14,500′ MSL beyond 20 nmi from 215–230°; below 14,500′ MSL beyond 35 nmi from 231–285°, below 13,500′ MSL beyond 30 nmi from 286–359° acct crs roughness and TACAN unlock. TACAN unusable for apchs 268° rad to Silver Bow County/Butte Airport.

NEBRASKA

GRAND ISLAND RDO: TACAN unusable beyond 20 nmi below 7000′ 360–025°; from 0 to 10 nmi below 12,000′ 055–085°; from 0 to 20 nmi below 12,000′ 255–285°.

OMAHA RDO: Voice comms with Omaha, Nebr. F unusable below 3600′ on V–6–8S btn 36 and 55 nmi of VORTAC, excep tsmtg 116.3 mc.

NEVADA

BATTLE MOUNTAIN RDO: VOR unusable at MO beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 2 285° acct reduced coverage.

BEATTY RDO: VOR restricted below 8000′ beyond nmi, 060–360°; below 10,000′ beyond 10 nmi, 360–0

BOULDER RDO: VOR restrictions 300 to 310° bel 8000′ MSL beyond 15 nmi due to scalloping.

COALDALE RDO: VOR portion of VORTAC unusa beyond 25 nmi below 11,000′ MSL 060–075°; beyond nmi below 10,000′ MSL 155–180°; beyond 25 nmi bel 11,200′ MSL 300–015° acct reduced coverage. DME usable beyond 15 nmi below 14,000′ MSL 065–07 below 17,000′ MSL 150–235°; below 16,000′ MSL 3 330° account reduced coverage.

CURRANT RDO: VOR unusable beyond 15 nmi at MO 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 n 260–290°; nmi 290–310° acct reduced coverage.

ELY RDO: VOR operg with following restrictions cept on established airways and routes: unusable yond 20 nmi below 11,500′ MSL from 120–170° a 240–320°; below 14,000′ MSL 170–220° and 320–34 below 15,000′ MSL from 220–240°; below 12,000′ M from 340–010°; beyond 10 nmi below 13,000′ M from 010–120°.

HAZEN RDO: VOR unusable 300–320° beyond 30 n below 9500′.

LAS VEGAS RDO: VORTAC unusable beyond 40 n below 9500′ MSL from 190° to 220° below 12,5 MSL from 200° to 255°, below 14,500′ MSL from 2 to 270°, below 16,000′ MSL from 270–290° acct of duced coverage.

MINA RDO: VOR unusable below 11,000′ due rou ness.

MORMON MESA RDO: VORTAC unusable beyond nmi below alts 12,000′ MSL from 055 to 100°; 14,0 MSL from 100 to 110°; 17,000′ MSL from 110 to 135 16,000′ MSL from 285 to 340° account reduced cov age.

RENO RDO: H facility unusable 170°–270° beyond nmi, 270°–300° beyond 30 nmi and 300–010° beyo 23 nmi. VOR unusable 200–230° beyond 30 nmi l low 13,000′. TACAN unusable below 14,500′ beyo 30 nmi btn 210–230°.

SPARKS RDO: H facility unusable btn 175–185° l yond 18 nmi.

TONOPAH RDO: VOR unusable below 13,000′ MSL l yond 40 nmi 005–030° acct reduced coverage.

WELLS RDO: VOR unusable beyond 40 nmi 18.00 MSL 005–030°; below 22,500, 185–210°; below 15.0 335–350°; and below 12,000′, 350–005° account redu coverage.

NEW HAMPSHIRE

KEENE RDO: VOR unusable 070–085° beyond 20 m at MOCA.

LEBANON RDO: VOR unusable below 6900′ MSL b yond 35 nmi, 110–115° acct reduced coverage.

NEW JERSEY

ATLANTIC CITY RDO: VOR unusable beyond 35 n from stn to MOCA. TACAN has momentary cro pointer excursions within 10 nmi at MOCA, whic

may be encountered at higher alts and greater ranges. TACAN apch rnwys 13 and 31 for mil jet acft approved; otherwise unsuitable for instrument apch procedure.
OBBINSVILLE RDO: VOR unusable beyond 30 nmi from 020° clockwise to 085° at MOCA due interference undisclosed source.

NEW MEXICO

MARRON RDO: VOR coverage restricted to awys 40 nmi at MEA excp V-19, N of CIM 35 nmi.
LUMBUS RDO: VOR 078° rad restricted to 20,000' MSL for 40 nmi.
ANTS RDO: TACAN unusable beyond 20 nmi 175–210°, 315–360° and 011–035° at MOCA acct loss of signal, the portion 001–010° unusable acct loss of signal. VOR portion unusable beyond 30 nmi 310–360°, 20 nmi 360–025°, 30 nmi 150–175°, 20 nmi 175–210°, 35 nmi 240–265° at MOCA.
SWELL RDO: TACAN unusable beyond 20 nmi below 6000' MSL 060–140°; below 8000' MSL 141–215° acct crs roughness.

NEW YORK

NGHAMTON RDO: Erratic ADF action 4–13 nmi NE of facil at min inst alt.
ER PARK RDO: VOR unusable below 1500' MSL beyond 35 nmi from 070–180° below 1500' MSL beyond 30 nmi from 180–240° below 2000' MSL beyond 30 nmi from 240–350° below 2000' MSL beyond 30 nmi from 350–040° due reduced coverage. TACAN unusable below 1500' beyond 15 nmi from 088–098° due roughness.
NKIRK RDO: VOR unusable below 4000' MSL beyond 22 nmi from 120–180° acct reduced coverage.
NESEO RDO: VORTAC unusable below 3500' MSL beyond 35 nmi 115–140°; below 3500' beyond 30 nmi 140–160°; below 3500' beyond 35 nmi 160–180°; 3500' beyond 30 nmi 190–210°; 3500' beyond 35 nmi 210–215° due reduced coverage.
ENS FALLS RDO: DME unusable beyond 35 nmi 305–315°, beyond 30 nmi 315–320°, beyond 25 nmi 320–325°, beyond 30 nmi 325–350° at MOCA.
MPTON RDO: DME unusable below 1500' MSL beyond 25 nmi 280–325°; below 2000' MSL beyond 30 nmi 325–355° account reduced coverage.
GUENOT RDO: VOR unusable below 6500' beyond 30 nmi 210–230° due reduced coverage.
HACA RDO: VOR unusable beyond 25 nmi 360– 150°.
NGSTON RDO: VOR unusable beyond 35 nmi 045–050° and 30 nmi 070–140° at MOCA.
W YORK, KENNEDY RDO: VOR unusable below 500' beyond 30 nmi 015–303°; below 1500' beyond 26 nmi 030–045°; below 2000' beyond 24 nmi 045–060°; below 1500' beyond 24 nmi 060–075°; below 1500' beyond 30 nmi 075–100°; below 1500' beyond 28 nmi 100–150°; below 1500' beyond 26 nmi 150–165°; below 1500' beyond 30 nmi 165–215°; below 1500' beyond 26 nmi 215–270°; below 2000' beyond 26 nmi 270–340°; below 2000' beyond 30 nmi 340–350°; below 1500' beyond 35 nmi 350–015°. MRA Northport Int 2500' MSL acct crs roughness.
W YORK RDO: La Guardia VOR (freq 113.1 mc) unusable clockwise beyond 20 mi 015–025°; 35 nmi 025–045°; 30 nmi 065–075°; 25 nmi 075–135°; 35 nmi 135–145°; 15 nmi 165–205°; 35 nmi 205–215°; 30 nmi 215–220°; 25 nmi 220–230°; 30 nmi 230–240°; 20 nmi 240–250°; 10 nmi 250–260°; 20 nmi 260–270°; 25 nmi 270–285°; 30 nmi 285–295°; 35 nmi 295–305°; 35 nmi 315–325°; 25 nmi 325–005° at MOCA.
ROCHESTER RDO: VOR unusable beyond 12 nmi btn 045 to 065° at MOCA. VOR subject to shutdown except Sundays and holidays acct arpt constr. Whenever weather conditions go below ceiling 800' and/or visibility 2 mi VOR will return to service.

NORTH CAROLINA

CHARLOTTE RDO: VOR normal excp 045° rad unusable beyond 20 nmi due roughness.
ELIZABETH CITY RDO: VOR unusable 026–042° and 085–100°, unusable 276 312° below 5000'. V–472 tmpry authorized 130° rad FKN ECG VOR MEA 2500' MSL due restrictions.
GOLDSBORO, SEYMOUR JOHNSON AFB RDO: VOR rads 290° thru 320° and 100 thru 190° unusable due roughness, scalloping and bends.

OHIO

AKRON RDO: VOR portion VORTAC unusable 030–080° acct crs roughness. From V–72 utilize published YNG VOR rad from Akron to YNG. SW–bnd determine stn passage at Akron by To-From indicator. MEA 2500' MSL.
BRIGGS RDO: VOR unusable 330–010° and 120–145°, unusable above 10,000' MSL 305–325° acct roughness. For V–8, V–75, V–92, utilize published Wheeling VOR 310° radial BSV to Wheeling VOR 3100' MEA.
MANSFIELD RDO: VOR unusable above 8000' MSL beyond 20 nmi from stn 140–220° due co-channel interference 108.8 mc from Rainelle, W.Va. VOR.
MONTGOMERY CO RDO: VOR unusable beyond 30 nmi 070° clockwise to 085°, 135–155°; 225–250°; 280–295° at MOCA. All other azimuths unusable.
STRONGVILLE RDO: VOR unusable beyond 35 nmi from 080–200° at MOCA.

OREGON

NEWPORT RDO: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000' MSL 350–150°; 6000' MSL 150–170°; 6000' MSL 320–350° acct reduced coverage.
NORTH BEND RDO: VOR unusable beyond 40 nmi below 6000' MSL from 340–065° and below 6500' MSL 065–190°.
PORTLAND RDO: VORTAC 332° rad and the DME on the same 332° rad not usable beyond 40 nmi at 6,000'.
REDMOND RDO: VORTAC unusable below 11,000' MSL 190–210'; below 13,000' MSL 210–240°.
ROSEBURG RDO: VOR coverage 40 nmi at MOCA excp 11,500' MSL 070–085°; above 12,500' MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500' MSL 085–125°; 10,500' MSL 125–130°; 6000' MSL 215–285°. Unusable below 7000' MSL.

PENNSYLVANIA

ALLENTOWN RDO: VOR unusable below 3500' MSL beyond 26 nmi from 020 to 060° account crs roughness.

ALTOONA RDO: VOR unusable below 3500′ MSL beyond 18 nmi 070-100° below 3500′ MSL beyond 30 nmi 100-160° below 4500′ MSL beyond 30 nmi 200-310° all altitudes beyond 15 nmi 310-350° below 4000′ MSL beyond 30 nmi 350-010° due reduced coverage.

BRADFORD RDO: H fac unusable beyond 15 nmi 90 to 180° acct excessive needle oscillation.

CARROLLTOWN RDO: VOR unusable beyond 10 nmi 070-085° at MOCA.

HARRISBURG RDO: VOR unusable beyond 26 nmi from 105-140°; beyond 30 nmi 140-165° beyond 35 nmi 195-230° at MOCA. TACAN azimuth unusable beyond 35 nmi 195-230° 15 nmi 230-265° and 330-345° at MOCA. TACAN distance unusable beyond 30 nmi 325-360° beyond 35 nmi 360° beyond 35 nmi 360-025° at MOCA.

HAZLETON RDO: Non-Federal H facil hrs of opern limited to 0700-1900 UFN.

HUGHESVILLE RDO: H facil has erratic ADF action 2-4 nmi from stn in E quad at min instr alt.

IMPERIAL RDO: VOR unusable from 150 to 170° below 8000′ and from 345 to 360° below 14,500′ MSL account crs roughness. For V40/41 btn IRL and ABC VORTAC below 8000′ MSL utilize AGC 330° rad.

LANCASTER RDO: VOR unusable below 5000′ MSL beyond 15 nmi, below 6000′ MSL beyond 25 nmi from 320-340° acct crs scalloping.

LATROBE RDO: VOR unusable all alts all azimuths beyond 20 nmi due crs vagaries.

PITTSBURGH, ALLEGHENY RDO: H facil brgs unreliable SW quad beyond 20 mi all alts due to excessive needle oscillations.

SELINSGROVE RDO: VOR unusable 26 nmi from 105° clockwise to 115°; 35 nmi 210-230°, 26 nmi 250-285° at MOCA. TACAN unusable beyond 30 nmi 100-155° beyond 35 nmi 115-170° beyond 35 nmi 115-170° beyond 35 nmi 190-300° at MOCA. Unusable intermediate awy 110° rad to int ABE rad 198°.

THORNHURST RDO: VORTAC unusable beyond 15 nmi below 6000′ MSL 300-330°.

YARDLEY RDO: VOR unusable below 1700′ MSL beyond 17 nmi 250-265°; beyond 10 nmi 265-280°; beyond 17 nmi 280-290° account crs roughness. TACAN unusable below 2400′ MSL beyond 15 nmi, below 5000′ MSL beyond 30 nmi 225-275° acct roughness and DME unlock.

RHODE ISLAND

PROVIDENCE RDO: VOR unusable beyond 30 nmi below 3000′ acct reduced coverage from 220-310°.

SOUTH CAROLINA

MYRTLE BEACH RDO: VOR rads 220-245° unusable below 2500′ MSL beyond 15 nmi.

SOUTH DAKOTA

MITCHELL RDO: VOR restricted to VFR use only UFN.

MOBRIDGE RDO: State owned and operd VOR operg 0700-1900, VFR use only. Class: L-VOR. Freq: 108.6, receivers 122.1. Ident MBG. Lctd lat 45°33′-07″, long. 100°21′56″.

WATERTOWN RDO: TACAN unusable 218-238° between 19-25 mi acct crs roughness.

TEXAS

AMARILLO RDO: TACAN unusable beyond 15 nmi low 7,000′ MSL 110-235° acct roughness.

AUSTIN RDO: VOR unusable beyond 35 nmi be 3500′ MSL 260-320°.

BROWNWOOD RDO: VOR coverage restricted to nmi at min instr alt 015-085°.

EL PASO RDO: TACAN unusable beyond 30 nmi MOCA from 265° clockwise thru 300°.

FORT WORTH, GREATER SOUTHWEST RI TACAN unusable beyond 30 nmi below 3000′ MSL.

HOUSTON RDO: TACAN unusable beyond 35 nmi low 2500′ MSL 085-210°.

GALVESTON RDO: TACAN unusable beyond 20 below 3000′ MSL 040-075 °acct crs roughness.

LUBBOCK RDO: VOR unusable on 004° rad from to 25 nmi acct freq interference.

PALACIOS RDO: TACAN unusable 265-330° roughness.

WACO RDO: TACAN unusable beyond 15 nmi be 5000′ MSL 175-195°.

WINK RDO: TACAN unusable beyond 17 nmi below 7(MSL 030-080°.

UTAH

CEDAR CITY RDO: VOR unusable beyond 40 nmi low 17,500′ MSL 065-090°; below 22,000′ MSL (100°; below 24,000′ MSL 100-140°; below 20,(MSL 140-150°; below 17,000′ MSL 150-170° acco reduced coverage.

DELTA RDO: VOR unusable beyond 40 nmi be 16,000′ MSL 040-080° acct reduced coverage.

HANKSVILLE RDO: VORTAC coverage restricted fi 160 thru S to 190° 26nmi at 14,000′ MSL.

LUCIN RDO: VOR unusable beyond 40 nmi be 15,000′ MSL 180-220°; below 12,000′ MSL 280-31 below 11,000′ MSL 310-330° account reduced cover

MILFORD: Jet Route 107 from Milford, Utah V to Rock Springs, Wyo. VOR continuous navigat signal coverage does not exist over the entire rc segment below 28,000′. VOR moderate to hvy rou ness over mountain ridges on 072 rad 10 mi out. TACAN momentary crs excursion and roughness excess of 3° exists on TACAN rads.

OGDEN RDO: VORTAC unusable beyond 40 nmi low 21,000′ MSL 360-055°; below 16,500′ MSL thru 075°; below 22,000′ MSL 075 thru 130° acco reduced coverage.

PROVO RDO: VORTAC unusable beyond 40 nmi be 15,000′ MSL 010-035°; below 16,000′ MSL 035-05 below 15,000 MSL 275-285°; below 14,000′ MSL 2 295° acct reduced coverage. VOR roughness exists o mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY RDO: VORTAC unusable beyo 40 nmi below 19,000′ MSL 010-020°; below 20,(MSL 020-030°; below 23,000′ MSL 030-060°; bel 24,000′ MSL 060-080°; below 19,000′ MSL 080-0 below 17,000′ MSL 095-125°; below 16,000′ MSL 1 140°; below 16,000′ MSL 195-210°: below 10,(MSL 280-290°; below 16,000′ MSL 350-010° acct duced coverage.

VERMONT

'RLINGTON RDO: VOR unusable beyond 35 nmi from 080° clockwise to 105°; 25 nmi 115–135°; 30 nmi 135-155° at MOCA.

)NTPELIER RDO: VOR unusable beyond 30 nmi 205-220°; beyond 25 nmi 220–235°; beyond 30 nmi 234-280° at MOCA.

VIRGINIA

)OKE RDO: TACAN distance unusable beyond 30 nmi 230° clockwise to 270° MOCA.

:RNDON RDO: VOR portion of VORTAC unusable below 2500' MSL. Beyond 30 nmi from 050–075°; beyond 20 nmi from 075–095°; beyond 35 nmi from 095-120°; beyond 20 nmi from 165°–215° acct of rs roughness. V39 E 200° usable 5000' and above beyond 20 nmi.

WRENCEVILLE RDO: VOR unusable below 1800' MSL beyond 8 nmi 215–250°; 14,500' MSL to 18,000' MSL 215-270° account roughness. MEA V-155 3000' MSL btn LVL VOR and Franklinton, N.C. Int. MEA V-454, 5000' MSL btn LVL VOR and LIB VOR. Changeover point 82 nmi from LIB VOR.

N)EN RDO: DME unusable below 3500' beyond 25 nmi 140-180°; below 5000' 180–225° acct reduced coverage.

)NTEBELLO RDO: VOR unusable 110–220° beyond 5 nmi at MOCA. 058 rad unusable above 14,500'.

'LASKI RDO: VORTAC unusable beyond 35 nmi from 045° clockwise to 060° at MOCA.

'ANTICO MCAS RDO: Use LFR as H facil only.

)ANOKE RDO: Woodrum VOR unusable beyond 30 nmi from 360 to 285°, 20 nmi 286–360° at MOCA. H facil unusable beyond 40 nmi from 240 to 010° below 6000' due excessive needle oscillation.

WASHINGTON

:LLINGHAM RDO: Intermittent roughness may be observed on V-23 below 6000' MSL from 49 nmi thru 40 nmi S of VOR.

:AH BAY RDO: H facil unusable 100–130° below 5500' MSL acct terrain.

.YMPIA RDO: VORTAC unusable below 7500' MSL at 40 nmi 210–260°. TACAN unusable below 15,000' MSL 260-270° at 40 nmi; below 9500' MSL at 35 nmi 270-280° account reduced coverage. VOR 348° rad unusable below 4500' MSL beyond 24 nmi.

PASCO RDO: VOR unusable below 6500' MSL beyond 40 nmi 150-210°; below 5500' MSL 210 270° acct reduced coverage. Coverage within R 6715 from 270–320° not flt checked.

PORT ANGELES RDO: VOR coverage 40 nmi: 220–110° at 7000'; 110-140° at 14,500'; 140–150° at 20,500'; 150–170 °at 20,000'; 170-190° at 20,500; 190–220° at 16,000'.

SEATTLE RDO: LFR NW crs has splits and multiples beyond 20 nmi. VOR unusable beyond 10 nmi 158° clockwise 165°. 309° rad unusable below 14,000 within 40 nmi.

WALLA WALLA RDO: VOR coverage at 40 nmi restricted below 6000', 355-020° and 148-176°; below 7500' from 130–150°; below 10,500' from 020–060° and 110-130°; below 12,700' from 065-110°.

WENATCHEE RDO: VOR unusable beyond 20 nmi below 20,000' MSL 000–020° beyond 30 nmi below 20,000' MSL 020-075° beyond 40 nmi below 14,000' MSL 075-090° below 18,000' MSL 090–190° below 19,000' MSL 190–240°.

WEST VIRGIN'A

BECKLEY RDO: VOR unusable beyond 20 nmi 325–350° below 5000' acct crs roughness, excluding 335° rad at Montgomery Int. Voice reception Charleston FSS unreliable below 7500' MSL 40 nmi radius Beckley VOR 030–180°. Reception satisfactory with acft over VOR or MEA.

WISCONSIN

LA CROSSE RDO: VOR unusable 100–150° and 230–090° below 3300' MSL beyond 20 mi.

MILWAUKEE RDO: Timmerman VOR unusable beyond 35 mi 300–310° below 3400' MSL acct reduced coverage. Alarm status MKE VOR indicated by transmission of unkeyed 1020 cycle ident signifying unusability for nav and indicating imminent equipment transfer shutdown.

WYOMING

BOYSEN RESERVOIR RDO: VORTAC has momentary crs excursions and roughness all radials.

DUNOIR RDO: VOR restricted to awy rad use only.

SHERIDAN RDO: VORTAC unusable below 40 nmi below 17,000' MSL 160–175°; below 15,000' MSL 175–200° and below 16,500' MSL 300–230° acct reduced coverage.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); a altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexandria, La. England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Atlanta, Ga.: Lctn #1—012°; over end rnwy 09. Lctn #2—020°; over end rnwy 27.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°; over LFR, 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 145°; N end of rnwy 16–34; 660′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont. (Municipal): 073°; Intersection of rnwys 4–22 and 9–27; 4600′.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Boise, Idaho (Air Trml): 086°; over dam outlet S e Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brownsville, Tex. (Rio Grande Valley Intl): 244°; wa twr in bldg area of arpt.

Brownwood, Tex: 167°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating b con.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burli ton Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control t 4.4 nmi from VOR; 2000′.

Butler, Mo.: 073°; over FSS bldg.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnw 21–25–30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr.: 014°; railroad intersection 1.5 nmi N a bndry.

Champaign, Ill.: 175°; over grain elevator 8 nmi S Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cle land LFR distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over mic wave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corn of Red Bank, N.J. Arpt.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 m E of arpt.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Ar

Crescent City, Calif. (McNamara Fld): 104°; over Tan farm E side of town; 1000′.

Crestview, Fla.: 104°; over center of arpt; 900′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over met hangar.

Cut Bank, Mont.: 312°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 a 17; 1700′.

ayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500′.

aytona Beach, Fla. (Mun): 157°; over remote ctld air/gnd facility antenna.

ecatur, Ala. (Pryor): 092°; over intersection of rnwy and taxiway 236° from HSV; 1000′.

elta, Utah: 346°; at apch end of rnwy 34; 4900′.

enver, Colo.: 189°; over EGW rdo bcn; 5800′.

es Moines, Iowa: 356°; center twr of DSM LFR, 4.2 nmi from VOR.

ouglas, Ariz. (Bisbee-Douglas Intl): 119°; over intersection rnwy 12–30 and 17R–35L; 4700′.

ublin, Ga. (Municipal): 067°; over SW end NE/SW rnwy.

ubois, Idaho (Municipal): 335°; FAA Communications Bldg; 5200′.

agle Lake, Tex.: 181°; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

Dorado, Ark. (Goodwin): 228°; trml bldg E side of arpt.

lensburg, Wash. (Bowers): 255°; center, W end of rnwy 7–25; 2300′.

mporia, Kans.: 046°; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

nrata, Wash.: 200°; centerline, SW end of rnwy 2–20; 1500′.

vergreen, Ala.: 100.7°; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nmi from VOR.

rgo, N.Dak. (Hector): 360°; lctd apch end Hector Fld rnwy 35.

rmington, Mo.: 195°; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR; 2300′.

yetteville, Ark.: 183°; VORTAC; white circle on arpt; 2500′.

yetteville, N.C.: 239°; over water twr at Parktown, N.C. 8.0 nmi; 1200′.

lmore, Calif.: 210°; at CAV rdo bcn 1800′.

ndlay, Ohio: 048°; over the Ohio Oil Company Admin Bldg at 2000′; aprxly 5 nmi from FDY VOR.

int, Mich. (Bishop): Pontiac VOR 332°; over apch end rnwy 9; 2200′.

ying Cloud, Minn.: 349°; 4.5 nmi over smokestack at Glen Lake Sanatorium; 2000′.

rt Leonard Wood, Mo. (Forney AAF): 351°; water twr N side E–W hvy dist 4.9 nmi from transmitter.

rt Smith, Ark.: 232°; water tank at N edge of arpt; 1300′.

rtuna, Calif.: 358°; over intersection of rnwys Arcata Arpt; 500′.

rtuna, Calif. (Rohnerville): 128°; over apch end of rnwy 11; 1400′.

sno, Calif. (Air Trml): 133°; over apch end rnwy 11; 500′.

sge, Okla.: 094°; over LFR; 3000′.

olveston, Tex.: 110°; arpt terminal bldg.

rden City, Kans.: 100°; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169°; hangar mrkd "WORCESTER" on roof, Worcester Arpt; 1000′.

Gila Bend, Ariz.: 193°; over apch end of rnwy 35 of Gila Bend Aux. Fld; 1500′.

Goodland, Kans. (Mun): 083°; over water twr NE edge of town of Brewster, Kans., 16 nmi; 4000′.

Gordonsville, Va.: 305°; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR; 2000′.

Grand Forks, N. Dak.: 315°; over Int N/S and E/W rnwys; 1900′.

Grand Island, Nebr.: 141°; over smoke stack 5.5 nmi from VOR; 3100′.

Grand Junction, Colo. Walker Fld): 059°; int rnwys 29 and 22; 6500′.

Grants, N. Mex.: 295°; in flt over FSS adj to rnwy; 7000′.

Great Falls, Mont.: 026°; center NE end rnwy 3–21; 3900′.

Hallsville, Mo.: 225°; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo.; 2000′.

Harlingen, Tex.: 140°; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State): 109°; over triangle formed by rnwys: 2000′.

Hattiesburg, Miss. (Mun): 149°; over water twr and rotating lgt bcn on arpt.

Hayes Center, Neb.: 258°; 28 nmi over center of town of Enders, Neb.; 4500′.

Hibbing, Minn.: 311°; over FSS Bldg; 2400′.

Hickory, N.C.: 225°; over end rnwy 24.

Hill City, Kans.: 057°; Hill City Arpt bcn lgt 23 nmi from the VOR.

Hobart, Okla.: 352°; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County): 030°; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman): 037°; W end and center rnwy 6; 500′.

Houghton, Mich. (County Mem'l): 241°; WHDF com. bdcst twr 3.5 nmi from VOR; 2100′.

Houlton, Me.: 042°; over Admin Bldg on E side of flt and 5.5 nmi from VOR; 1500′.

Houma, La.: 117°; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau): 276°; arpt bcn on arpt; 500′.

Houston, Tex.: 099°; over intersection of E/W txwy and parking ramp of Ellington Field.

Huron, S. Dak. ((Howes): 153°; lctd over HON/SBH; 2000′.

Hutchinson, Kans.: 032°; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313°; apch end of rnwy 32; 200′.

International Falls, Minn.: 142°; RR bridge over stream of Ericsburg, Minn 5.4 nmi; 2200′.

Jackson, Miss. (Hawkins): 189°; over arpt intersection of rnwys 11–29 and 34L–16R.

Jackson, Tenn. (McKellar): 267°; over bcn twr above arpt; 1000′.

Joliet, Ill.: 102°; over centerline of NW end of NW/SE rnwy; 1500′.

Keeler, Mich.: 266°; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich.; 1600′.

Kennebunk, Me.: 061°; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR; 1500′.

Kirksville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

Laurel, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 199°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Tex.: 320°; water twr N of arpt.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Marysville, Calif. (Yuba County): 067°; intersection of rnwys; 1500′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000′.

Miles City, Mont.: 30°; to apch end of rnwy 4.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis. (General Mitchell); 123°; over MKE LFR.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys; 2500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, d tance 6.1 nmi from VORTAC.

Muskegon, Mich. (County): 256°; over Muskegon LF 1500′.

Myrtle Beach, S.C. (AFB): 061°; over apch end rnwy Crescent Beach Arpt.; 500′.

Napa, Calif. (County): 045°; over rotating bcn on ar 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi I of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwo Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iow 2500′.

Neosho, Mo.: 343°; center triangle formed by the int section of 3 rnwys of Joplin, Mo., Mun Arpt.

Newbern, N.C.: 259°; Int of E/W rnwys Oak Grove (nav arpt.

New Orleans, La. (Mun): 081°; over rotating bcn t bldg on New Orleans Mun Arpt.

New Orleans, La. (Lakefront Arpt): 070°; over Lakefr twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stant Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

North Platte, Nebr. (Lee Bird): 82.6°; over water t Brady, Nebr.; 4000′.

Oklahoma City, Okla. (Will Rogers): 100°; rdo bcn st 1800′.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR rnwys 17–35 and 12–30; 1800′.

Omaha, Nebr. (Eppley Fld): 309°; centerline of SE e of NW/SE rnwy.

O'Neil, Nebr.: 115°; at intersection of E/W road and railroad ½ nmi SE of Inman, Nebr.

Ontario, Calif. (Intl: 347°; over and parallel with tx btn rnwy 21 and 25; 2300′.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 330

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar Southern Pines, Pinehurst-Southern Pines Arpt.

Pittsburgh, Pa.: 333°; ctl twr, Greater Pittsburgh Arp 3000′.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4– and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt: 150

Pocatello, Idaho: Lctn #1—031°; over apch end of rn #3; 5450′. Lctn #2—029°; over intersection or ru ways 21 and 25; 5450′.

Pontiac, Mich. (Municipal): 113°; over circle of stones SE corner of arpt; 2000′.

Portland, Oreg.: (Intl): 162°; intersection 2 and disco tinued 29; 1000′.

oughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt: 1500′.

rescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500′.

ribque Isle, Me. (AFB): 184°; Sprague ville LFR site; 200′.

rincenes, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000′.

ueblo Colo. (Pueblo Mem'l): 294°; over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).

uloski, Va.: 066°; bldg on S side of E/W rnwy at VPI Arpt., Blackburg, Va.; 4000′.

uitman, Tex.: 241°; water tank, town of Alba, Tex.

urlins, Wyo.: 065°; (Cherokee VOR), 17 nmi; 7300′.

ymond, Nebr.: 082°; over grain elevator at Waverly, Nebr., 9.8 nmi; 2500′.

d Bluff, Calif. (Mun): 329°; over centerline rnwy 33; 700′.

hinelander, Wisc. (Drott Arpt): 210°; over rnwy Int; 2500′

verhead, N.Y. (Brookhaven Arpt): 170° VORTAC; 4.5 nmi over apch end of rnwy 15; 1500′.

oswell, N. Mex.: 027°; over apch end rnwy 3; 400′.

yston, Ga.: 067°; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt; 1250′.

nsell, Kans.: 091°; over water twr in center of town of Wilson, Kans.

cramento, Calif.: 015°; apch end rnwy 02; 100′.

. Joseph, Mo. (Rosecrans Mem'l): 167°; centerline of the extreme N end of the N/S rnwy.

lina, Kans.: 115.5°; over town of Kipp, Kans., 12 nmi from VOR and 6 nmi SE of Mun Arpt.

lt Flat, Tex. (8A, ELP–FTW): 335°; over the LFR.

lt Lake City, Utah: 158°; centerline rnwy 34L/16R entire length #1 Arpt; 4400′.

nsville, Ill.:064°; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill.; 1500′.

ult Ste. Marie, Mich. (Mun): 336°; int E–W and NW/SE rnwys; 2100′.

yre, Okla. (Mun): 175°; over rot bcn twr; 3000′.

eridan, Wyo. (County): 122°; over center of apch end rnwy 13, distance 4.9 nmi; 4500′ MSL.

reveport, La. (Downtown): 011.2°; over water tank N of arpt, distance 1.3 nmi.

reveport, La. (Greater Shreveport): 175°; over the Admin Bldg.

nton, Tex.: 318°; over bcn on fld 9.5 nmi CRP VORTAC.

nithwick, S. Dak.: 300°; on Hot Springs, S. Dak. Arpt at intersection E/W taxiway and N/S rnwy.

uth Boston, Va.: 254°; over trml bldg Danville Mun Airport; 1500′.

okane, Wash. (Intl): 027°; center NE end rnwy 21; 2900′.

vens Point, Wisc.: 314°; over ant twr 5 nmi NW of VOR; 2500′.

ockton, Calif. (Mun): 299°; over water twr adjt to S side of arpt; 1000′.

ulphur Springs, Tex.: 229°; over awy bcn lgt on SE corner of arpt.

racuse, N.Y. (Hancock Arpt): 135°; over ctl twr 4.75 nmi from VORTAC; 2000′.

Talladega, Ala.: 029°; over Anniston, Ala. Arpt.

Tallahassee, Fla. (Mun): 241°; over twr on arpt.

Terre Haute, Ind. (Hulman): 229°; int of NE/SW and NW/SE rnwy; 2000′.

Texarkana, Ark.: 123°; over rdo bcn; 1000′.

Thibodaux, La.: 117°; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.

Thief River Falls Minn.: 129°; over RR & hiway crossing adj Hazel, Minn.; 2000′.

Thurman, Colo.: 349°; in flt over Akron VOR transmitter site; 5600′.

Topeka, Kans. (Philip Billard): 073°; at hiway intersection 1.5 nmi SE McLouth, Kans.

Traverse City, Mich. (Municipal): 342°; at intersection of the N/S–E/W rnwys; 1600′.

Troy, Ill.: 322°; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill.; 1600′.

Tucson, Ariz.: 258°; main rnwy intersection; 2800′.

Utica, N.Y. (Oneida Co.): 319°; over ctl twr bldg; 11.93 nmi from BVOR; 1500′.

Valdosta, Ga.: 000°; over lgt bcn E side of arpt.

Vandalia, Ill.: 179°; centerline at N end N/S rnwy.

Vienna, Ga. (VORTAC): 226°; over center of NE/SW rnwy, Cordele, Ga., Arpt.

Waco, Tex.: 139°; over the dam of Lake Waco.

Waterloo, Iowa: 127°: 8 mi over center twr KWWL broadcast stn; 2000′.

Waterville, Ohio: 181°; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR; 2000′.

West Point, Ind. (VORTAC): 036°; over int of rnwys Purdue Univ Arpt; 2000′.

Wichita, Kans.: 161°; centerline of NW end of NW/SE rnwy.

Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml): 011°; at bridge over Red River 8 nmi N of Sheppard AFB; 1500′.

Wilkes Barre, Pa.: 243°; ctl twr, Wilkes Barre-Scranton Arpt; 3000′.

Williston, N. Dak. (Sloulin Fld): 121°; apch end rnwy 11; 2600′.

Willmar, Minn.: 289°; over twr at Pennock, Minn.; 2200′

Willows, Calif. (Willows-Glenn): 346° Maxwell VOR; over large green hangar NE side of arpt; 1000′.

Wilmington, N.C. (New Hanover Co.): 204°; over wea radar ant on arpt 5.5 nmi; 1000′.

Wink, Tex. (Winkler Co.): 149°; over int rnwy 22 and 13 5.9 nmi VOR; 3818′.

Winner, S.D. (Mun): 201°; over center of race track 0.5 nmi.

Winona, Minn.: 102°; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR; 1600′.

Winslow, Ariz.: 106°; intersection rnwys 4–11; 5100′.

Winston-Salem, N.C.: 295°; over ctl twr.

Worland, Wyo. (Municipal) : 010° Boysen Reservoir VOR-TAC; over taxi strip between Trml Bldg and rnwy 16–34; 5200′.

Worthington, Minn.: 047°; over grain elev at Brewster, Minn.; 2800′.

Yakima, Wash.: 246°; intersection N/S and E/W rnwys; 1600′.

Yankton, S.D.: 256°; 7 nmi over twr; 2500′.

Yuma, Ariz. (MCAS/Yuma Intl) : 166°; centerline rnwy 17–35; 400′.

GROUND

Aberdeen, S. Dak. (Saunders) ; 304°; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld) : 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun) : 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton) : 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN) : 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt) : 003°; Send on curve of taxiway 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Mun) : 038°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun) : 045°; adjt to S end of NS rnwy.

Atlantic City, N.J. (Pomona) **NAFEC**: Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l) : Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips) : Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County) : 051°; W edge of N end of parking ramp.

Bemidji, Minn: 130°; SE corner of Trml ramp.

Big Spring, Tex. (Howard County) : 142°; NW corner of taxistrip to rnwy 16.

Binghamton, N.Y. (Broome County) : 077°; 400′ S of ctl twr on S ramp south.

Bismark, N. Dak.: 275°; intersection of N/S taxi strip and the apch end of rnwy 13.

Blythe, Calif. (Riverside Co.) : 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml) : 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County) : 021°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City) : 282°; SW end of ramp in fro of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl) : 248°; ap end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and tr bldg on ramp.

Chattanooga, Tenn. (Lovell) : 332°; centerline S taxiw at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 199°; on yellow line on taxi strip i mediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.) : 067°; nmi on SW corner of N parking ramp at int of tx to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at ce ter taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp Easterwood Arpt.

•**Columbia, S.C.** (Owens Fld) : 022°; compass rose on par ing ramp.

Columbia, S.C. (Mun) : 331°; circle 450′ S of ctl twr a 235′.

Columbus, Ga. (Muscogee Co.) : 145°; pointed circle end of main ramp area.

Columbus, Miss. (Lowndes County) : 095°; at center ta way between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati) : 043°; rnwy 27 E intersection rnwys 27 and 22.

Crestview, Fla.: 104°; on center of concrete circle on rnw

Cross City, Fla. (Site 58, MEM–TPA) : 298°; taxiw near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison) : 159°; intersection of center a parallel taxiways.

Danville, Va. (Mun) ; 338°; S of trml bldg center of inte section of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy a N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/S rnwy.

Dothan, Ala. 186°; intersection of ramp and taxi str NW of trml bldg.

Dubuque, Iowa: 335°; on ramp in front of terminal bld

Duluth, Minn.: 012°; center of intersection formed by ta strips leading to rnwys 31 and 2 just off SE corner ramp.

Duncan, Okla. (Halliburton Fld) : 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and cent taxi strip.

East Hartford, Conn. (Rentschler) : 347°; lctd at taxi stri near N side of ctl twr.

•**Eau Claire, Wis.**: 180°; center of concrete ramp 150′ W Arpt Opern Office.

Elizabeth City, N.C. (CGAS) : Lctn #1—028°; lctd on tax way leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–2

Elmira, N.Y. (Chemung County) : 066°; midpoint of sho taxistrip between rnwy 10 and 6 at W side of arp aprxly 198′ S of C/L rnwy 10 and 374′ N of C/ rnwy 6.

e, Pa. (Erie-Port Erie) : 059° ; txwy apchg rnwy 6.
gene, Oreg. (Mahlon-Sweet) : 068° ; apch to apron immediately W of the Amin Bldg.
ettsville, N.C. (Grannis) : 305° ; on rnwy turnoff in front of ctl twr.
rence, S.C.: 235° ; on taxiway W of the end of rnwy 18.
t Benning, Ga. (Lawson AAF) : Lctn #1—021° ; run up area on txwy at apch end of rnwy 20. Lctn #2—019° ; run up area on txwy W ctl twr at intersection or rnwy 02–20 and 14–32. Lctn #3—055° ; run up area on txwy S of ctl twr at junction with rnwy 14. Lctd #4—130° ; run up area on txwy at apch end of rnwy 32.
t Dodge, Iowa: 118° ; 6.1 nmi from VOR on W edge of rml bldg.
Lauderdale, Fla (Hollywood Intl Arpt) : 120° ; on ramp in front of Trml Bldg.
t Myers, Fla. (Page) : 172° ; N side of Trml ramp.
t Riley, Kans. (Marshall AAF) : 030° ; on SE corner of tie down area and taxiway apchg rnwy 4.
t Rucker, Ala. (Cairns AAF) : Lctn #1—019° ; run up area on txwy apch end rnwy 13. Lctn #2—035° ; SW of Int rnwy 13 and 18. Lctn #3—040° ; run up area on txwy Int rnwy 13 and 18. Lctn #4—059° ; run up area on txwy N of apch end rnwy 24. Lctn #5—063° ; run up area on txwy S apch end rnwy 24. Lctd #6—058° ; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078° ; run up area on txwy W of apch end rnwy 36. Lctn #8—062° ; on run up area txwy N of apch end rnwy 6.
t Stockton, Tex.: 116° ; on ramp N of terminal.
dsboro, N.C. (Seymour Johnson AFB) : 028° ; run up pad at apch end rnwy 8.
on Bay, Wis. (Austin-Straubel) : 141° ; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.
ensboro, N.C.: 213° ; Ramp in front of twr.
enwood, Miss.: 060° ; central taxiway adj to ramp.
enwood, S.C. (County) : 251° on taxiway apch end of rnwy 9.
lfport, Miss.: 098° ; on arpt.
rrison, Ark.: 131° : Int taxiway and ramp.
ena, Mont. (City-Co.) ; taxiway adj to apch end rnwy 26.
bbs, N. Mex. (Lea County) : 030° ; on runup pad apch end rnwy 3.
t Springs, Ark.: 245° ; taxiway adj to rnwy 5.
uston, Tex.: 292° ; NE end rnwy 12.
annis, Mass. (Barnstable Mun) : 243° ; lctd on rnwy apron for rnwy 24.
ho Falls, Idaho (Fanning Fld) : 007° ; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.
aca, N.Y. (Tompkins Co.) : 202° ; at bend in txwy, 375′ from centerline of NW/SE rnwy.
nestown, N. Dak.: 258° ; junction of taxi strip leading from hangar with SW taxi strip.
nstown, Pa. (Cambria County) : 155° ; taxiway to rnwy 33.
ndion, Tex. (Kimble County) : 143° ; N edge of parking ramp.

Key West, Fla. (Boca Chica) : 091° ; W just N of apch end of rnwy 7.
Key West, Fla. (Int'l) : 131° ; NW portion of ramp.
Kinston, N.C. (Stallings) : 230° ; 500′ in front of Admin Bldg.
Klamath Falls, Oreg.: 204° ; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.
Lafayette, La.: Lctn #1—350° ; on taxiway at N end N/S rnwy. Lctn #2—343° ; on taxiway at S end N/S rnwy.
La Grange, Ga.: 106° ; on compass rose at taxi strip intersection aprxly 500′ due S of Admin Bldg.
Lancaster, Pa.: Intersection or ramp and txwy leading to intersection of rnwys.
Lansing, Mich. (Capital City) : 053° ; center of apch end rnwy 5.
Laramie, Wyo. (Brees) : 100° ; on loading ramp.
Laredo, Tex. (AFB) : Lctn #1—137° ; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131° ; off S end of ramp on taxiway 6, 4.0 nmi.
Laredo, Tex.: 315° ; on ramp adj to apch hcn.
Las Vegas, Nev. (McCarran Fld) : 351° ; on run-up area W side rnwy 19.
Las Vegas, N. Mex.: 231°, concrete ramp N of FSS Bldg.
Lawton, Okla.: 349° ; on trml apron at the point intersecting the S taxi strip.
Little Rock, Ark. (Adams) : 314° ; on taxi strip adj to junction rnwy 14.
Longview, Tex. (Gregg County) : 125° ; txwy adj to rnwy 13 to end of rnwy 13.
Louisville, Ky. (Bowman) : 329° ; taxiway W of rnwy 1.
Louisville, Ky. (Standiford) : 301° ; taxiway between ramp and rnwy 19.
Lubbock, Tex.: 111° ; W edge of ramp N of trml bldg.
Lufkin, Tex.: (Angelina Co. Arpt) : 328° ; Intersection of ramp and taxiway in front of Trml Bldg.
Mansfield, Ohio (Mun) : 133° ; at intersection of NW and SW taxiways.
Marfa, Tex. (Alpine) : 108° ; S edge of ramp in front of FSS.
Marianna, Fla.: 310° ; ESE end taxiway 6.
Marshall, Tex. (Harrison Co Arpt) : 318° ; Int of E and N/S taxiway in front of N ramp.
Martinsburg, W. Va.: 281° ; near apch end of rnwy 35.
Mason City, Iowa: 356° ; on centerline S end of N/S rnwy.
McAlester, Okla. (Mun) : 350° ; taxistrip at terminal ramp.
McAllen, Tex. (Miller Int'l) : Lctn #1—040° ; at intersection E/W txwy and N/S txwy. Lctn #2— 012° ; in front airline trml on gate two loading spot,.
Melbourne, Fla. (Eau Gallie) : 146° ; 220′ E of FSS.
Meridian, Miss. (Ky) : 121° ; from run up ramp for rnwy 23.
Midland, Tex. (Air Trml) : Lctn #1—188° ; center of warm up pad for rnwy 10. Lctn #2—178° ; int txwy C and ramp in front of Trml Bldg.
Mineral Wells, Tex.: 307° ; intersection of txwy and NW rnwy.
Missoula, Mont. (County) : 340° ; 5′ from edge of ramp in front of Admin Bldg.
●**Mobile, Ala.** (Bates) : 107° ; Int of N/S and E/W txwys E of rnwy 18–36. 109.5° ; Int of W ramp and W txwy.

Monroe, La. (Selman): 033°; arpt ramp in front of twr structure adj to the txwy leading to intersection of rnwys 17–35 & 4–22.

Muscle Shoals, Ala.: 289°; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial): 241°; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX–AMA): 253°; on ramp in front of Admin Bldg.

New Bern, N.C.: 088°; on compass rose at ramp.

New Orleans Intl, La. (Moisant Fld): 235°; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun): 031°; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calif. (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Olympia, Wash.: 347°; on ramp in front of Admin Bludg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Palacious, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050′ N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150′ S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S rnwy and E/W txwy of arpt.

Pendleton, Oreg.: 076°; 200′ W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; center of warmup pad S of apch end rnwy 27.

Pueblo, Colo.: 244°; painted circle with arrow on ramp W of Admin Bldg.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnw 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bl 60′ W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy

Riverton, Wyo. (Mun): 178°; txwy between Admin Bl and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, Minn.: 030°; of taxiway that enters apch e of rnwy 31.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front ctl twr 415′ from centerline rnwy 1–19 and 305′ fr centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of tu around E end rnwy 25. Lctn #2—261°; in cen of turn-around W end rnwy 7.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 263°; right 3 rnwy 33, marker.

● **Rome, Ga.** (Russeell Fld): 348°; Intersection of taxiwa 200′ S of the terminal bldg.

Saginaw, Mich. (Tri-City): 280°; lctd on NE parki ramp 12′ from field edge near center txwy.

St. Paul, Minn., (Downtown Arpt): 291°; over drain center of int parking ramp and taxiway in front trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parki ramp 500′ SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°: center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, direct in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ra front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in fro of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1: 329R, run area at apch end rnwy 9. Lctn #2: 335R, on W e ramp opposite hangars 1 and 2.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bl over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy Santa Catalina Arpt.

Santa Fe, N. Mex. (New Municipal): 334°; at junctio main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800′ N tr bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposi trml bldg and W of txwy leading to rnwy 30 aprx 3000′ from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30′ near ed of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front new twr.

Sioux Falls, S. Dak.: 148°; in line with E edge of txwy of ctl twr, 75′ S from N edge of parking ramp.

South Bend, Ind. (St. Joseph Co.): 178°; center of weste N/S txwy 200′ N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at co pass rose on ramp.

ringfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.
ringfield, Mo.: 191°; at bend in N/S txwy 400' S of N end of taxi strip.
nson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.
rmal, Calif.: 328°; ramp 250' in front of hangar.
seka, Kans. (Philip Billard Arpt): 212°; N/S taxiway W of tetrahedron.
th or Consequences, N. Mex.: 155°; on SE/NW txwy adj to wind cone.
umcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—256°; over painted orange circle, lctd on taxi strip 100' off end of rnwy 8.
sa, Okla. (Int'l): Lctn #1—260°; W end rnwy 8. Lctn #2—266°; on txwy SW corner AAL ramp. Lctn #3—265°; in runup position for rnwy 17R.
scaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.
in Falls, Idaho (Joslin): 030°; on parking strip apron 30' SW of Admin Bldg.
re Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.
hy, Mo.: 241°; on center line of NE/SW rnwy 125' from NE end Rolla National Arpt.
Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.
●Waco, Tex., (Muni): 132°; ramp N of terminal.
Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.
Walnut Ridge, Ark.: 050°; taxi strip at parking apron adj to tetrahedron.
Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.
Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.
Wausau, Wis. (Alexander): 338°; 100' N of wind tee, 30' from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.
Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.
Westfield, Mass.:304°; from center of compass rose lctd end of rnwy 15.
Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.
●Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; Int of txwy to rnwy 9 and center txwy.
Woodring, Okla.: 348°; ramp W of Term. Bldg.
Youngtown, Ohio: 182° compass rose end of rnwy 18.
Zanesville, Ohio: 010°; on arpt 270' NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with FAR PART 91.89(c)(3))

Airports	*Runways*	*Departure Procedures*	*Traffic Patten Alts.*
•Atlanta, Ga.	9R, 9L	No turns until 3 miles, 2500′ for *large acft.	
	27R, 27L	No turns until 3 miles, 2500′ for *large acft.	
	15	No turns by *large acft. over more populated areas until 3 mi., 2500′.	
	21	Turn south when speed & altitude permit, or as directed by ATC.	
Betts AAF, Tobyhanna Supply Depot, Pa.	14	Right hand tfc pattern.	
Burlington Mun., Vt.		Single engine.	1140′ MSL
		Multi engine.	1340′ MSL
Caldwell-Wright, Fairfield, N.J.	27	Acft shall not start crosswind leg until well past the school lctd ¼ mi to the right of the extended rnwy centerline and ¼ mi from the arpt.	
	32	Acft shall bear right as soon as practicable after take-off to avoid flying over the Fairfield township school lctd ¼ mi NW of arpt and slightly left of the extended rnwy centerline.	
Chicago–Midway, Ill.		Turbine powered acft climb as rapidly as possible.	2000′ AGL
Chicago–OHare I'ntl Arpt., Ill.		Turbine powered acft climb as rapidly as possible.	2000′ AGL
Gardner, Kans.	East	Recommend alt not above 400′ AGL until cross-wind leg northbound. Exit pattern NW to remain clear of tfc patterns of Olathe NAS, 3.5 mi NE.	
Jennings Arpt, La.	13, 17, 22	Right hand tfc pattern.	
Kansas City Fairfax Mun., Kans.		Acft under 12,500 lbs.	600′ AGL
Lake Charles, La.	15, 22	Right hand tfc pattern. 1000′ slow acft pattern; 1500′ turbine powered fixed-wing acft.	
New York, LaGuardia	13	Rgt turn and proceed over Flushing Meadow Park before turning on course.	1500′
•Oklahoma City, Wiley Post Post Arpt., Okla.	12	Acft shall proceed on rnwy heading until reaching 500′ or until passing the arpt bndry before beginning a turn to the right.	lgt acft 800′ AGL hvy acft 1200′ AGL
	17	Acft shall proceed on rnwy heading until reaching 500′ or until pasing the arpt bndry before beginning a turn to the right.	

* Large acft—acft weighing over 12,500 lbs maximum certificated take-off weight.

Airports	Runways	Departure Procedures	Traffic Patterns Alts.
	21	Acft shall proceed on rnwy heading until reaching 500' or until passing the arpt bndry before beginning a turn to the right.	
San Antonio, Tex., Stinson Arpt	9, 14, 22	Right hand tfc pattern. 800' AGL light or slow acft. 1500' AGL, heavy or fast acft.	
Sherman Mun., Texas	16	Left turn after takeoff.	800' AGL
	34	Right turn after takeoff.	
Torrance Mun., Calif.	11L	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 45 degrees from the runway departure heading and continue climb.	
	11L	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 90 degrees to the departure runway heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the right of the cross wing leg course.	
	11R	All aircraft—Climb on departure rnwy heading to 1500'.	
	29R	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 45 degrees from the runway departure heading and continue climb.	
	29R	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 90 degrees to runway departure heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the left of the cross wind leg course.	
	29L	All aircraft—Upon reaching an altitude of of 500 feet MSL, make left turn from the departure runway heading to intercept an area approximately over the Pacific Coast Highway, then proceed in a westerly direction until reaching 1,500 feet MSL or the shoreline.	
Wilkes-Barre Scranton, Avoca, Pa.	16, 22	Right hand tfc pattern.	
Winona, Minn., Max Conrad Fld		Right tfc NW.	

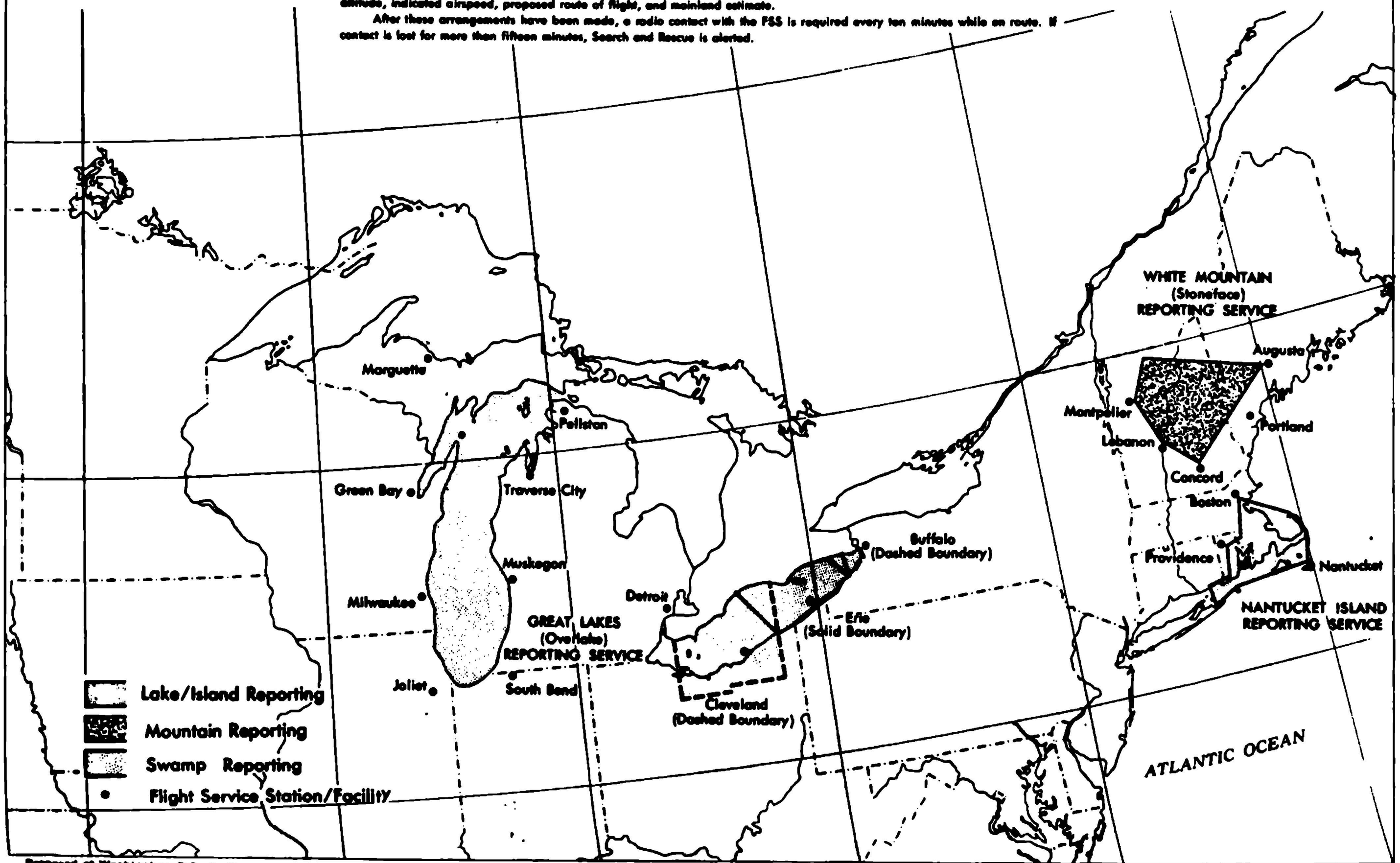
LAKE, ISLAND AND MOUNTAIN REPORTING SERVICE

Flight Service Station (FSS)

This service provides flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.

Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface", "Overlake", etc., are indicated on the following charts. To obtain this service, contact the FSS by telephone or radio giving present position, type aircraft, altitude, indicated airspeed, proposed route of flight, and mainland estimate.

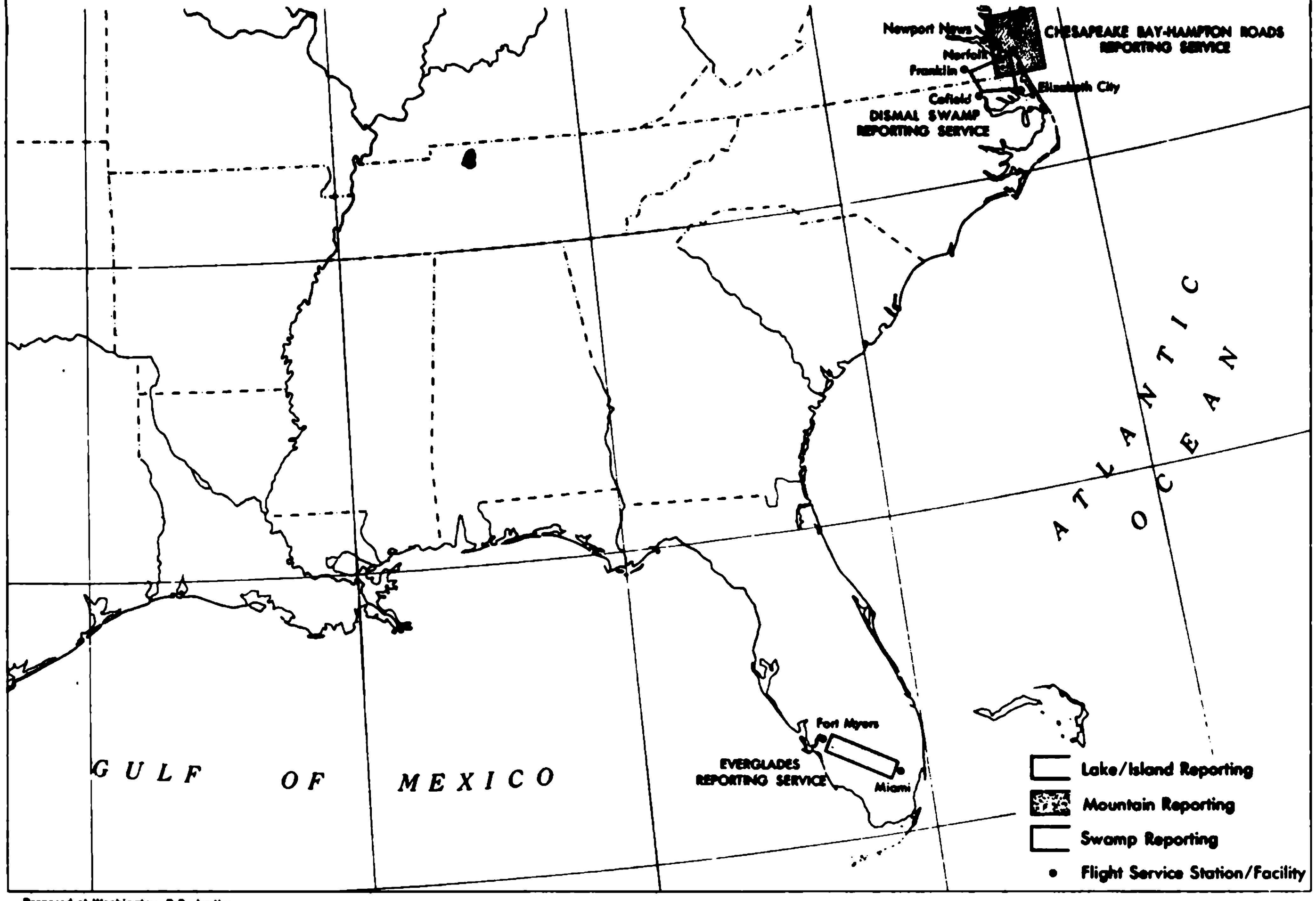
After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.



Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

LAKE, ISLAND AND MOUNTAIN REPORTING SERVICE

Flight Service Station (FSS)



Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

AIM-Jan. 7, 1965

III-67

ROCKY MOUNTAIN REPORTING SERVICE

This service is available to aircraft operating VFR (with or without flight plan) between Denver and Grand Junction via Corona Pass or Monarch Pass. This service can not be offered on an area or random route basis due to the unreliability of communications caused by terrain extremes. The routes via Corona Pass and Monarch Pass have been flight checked and communications found reliable at the altitudes published on the chart.

"Rocky Mountain Reporting Service" shall be available to all VFR aircraft upon request, whether or not operating on a regular flight plan.

REQUIREMENTS

1. Aircraft must be equipped with functioning 2-way radio capable of receiving VOR and transmitting 122.1mc.
2. Pilot must fly prescribed route at an altitude no less than established MRA (Minimum Reception Altitude).
3. Pilot must arrange for accurate time of departure to be received by the FAA facility through which the service was requested.
4. Pilot must radio a position report every ten minutes as follows, whether eastbound or westbound:

   CORONA ROUTE

   To Denver Radio while operating between Denver and Corona Pass (vicinity of Moffat Tunnel, west of Tolland, Colorado).

   To Eagle Radio (through Kremmling VOR) between Corona Pass and vicinity of Glenwood Springs.

   To Grand Junction Radio between vicinity of Glenwood Springs and Grand Junction.

   MONARCH ROUTE

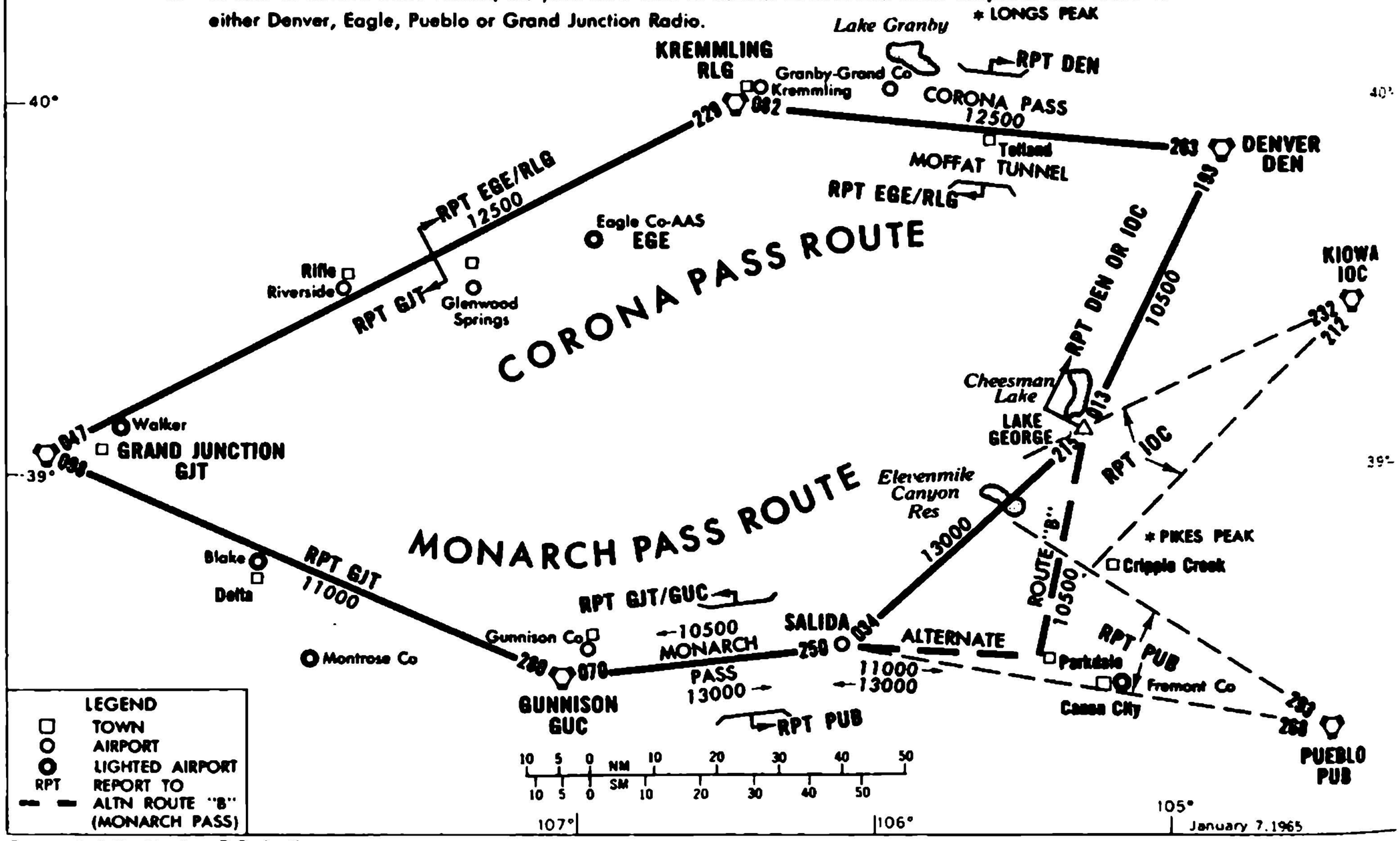
   To Denver Radio (through Denver or Kiowa VOR) between Denver and Lake George Intersection (Cheesman Reservoir). To Denver Radio (through Kiowa VOR only) between the Intersection and Elevenmile Reservoir, or west of Cripple Creek, Colorado.

   To Pueblo Radio between Elevenmile Reservoir or west of Cripple Creek and Salida, Colorado.

   To Grand Junction Radio (through Gunnison VOR) between Salida and Grand Junction.

   Pilots may file for all or any portion of either route, i.e. on a flight from Denver to Grand Junction, a pilot may request the service from Denver to Kremmling only.

   (If contact with the aircraft is lost for more than 15 minutes, Search and Rescue will be alerted.)
5. The service may be terminated at any time upon request of the pilot.
6. In case of aircraft radio failure, the pilot must land at nearest airfield and make telephone notification to either Denver, Eagle, Pueblo or Grand Junction Radio.



Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

MILITARY CLIMB CORRIDORS

L FLIGHTS desiring to traverse these areas must obtain prior approval from the Appropriate Authority and maintain continuous listening watch on the appropriate frequency while traversing the corridor. The list of corridors, propriate authority and frequencies follows:

Corridor	Appropriate Authority	Frequencies
ngor (Dow AFB) Maine	Dow AFB Apch Ctl	126.2; 363.8; 122.5G
arieston AFB/Mun., S.C.	Charleston Apch Ctl	119.3; 319.8; 122.5G
lumbus (Lockbourne AFB), Ohio	Columbus Apch Ctl	123.7; 122.5G; 360.6
lmouth (Otis AFB), Mass.	Otis RAPCON	124.7; 118.2; 122.5G
asgow (Glasgow AFB), Mont.	Glasgow AFB Apch Ctl	126.2; 236.6; 122.5G; 363.8
ldsboro (Seymour Johnson AFB), N.C.	Seymour Johnson Apch Ctl	119.7; 122.5G
and Forks (Grand Forks AFB), N.D.	Grand Forks AFB Apch Ctl	118.1; 363.8; 122.5G
andview (Richards-Gebaur AFB), Mo.	Olathe RAPCON	363.8; 124.7; 122.5G
mpton Roads (Langley AFB), Mich.	Norfolk Apch Ctl	350.3; 125.7; 122.5G
uston (Ellington AFB), Texas	Houston Apch Ctl	118.1; 284.6; 122.5G
mestone (Loring AFB), Me.	Loring AFB Apch Ctl	122.5G; 363.8
dison (Truax Fld), Wisc.	Truax Tower	120.1; 350.3; 122.5G
rquette Co. (K.I. Sawyer AFB), Mich.	Sawyer Apch Ctl	122.5G; 119.1; 259.3; 363.8
rced (Castle AFB), Calif.	Castle AFB Apch Ctl	118.9; 122.5G; 379.4
not AFB, North Dakota	Minot AFB Apch Ctl	363.8; 118.5; 122.5G
t. Clemens (Selfridge AFB), Mich.	Selfridge AFB Apch Ctl	126.2; 363.8; 122.5G
w Orleans (NAS New Orleans), La.	New Orleans Center—5000' & above, IFR	126.0; 323.2
	New Orleans Apch Ctl—VFR	118.1; 122.7G; 248.7
coda (Wurtsmith AFB), Mich.	Wurtsmith AFB Apch tl	126.2; 122.5G
nard AFB, Calif.	Ventura Apch Ctl	124.7; 319.2; 122.5G
rtland Intl. Arpt., Oregon	Portland Intl Apch Ctl	124.9; 122.7G; 290.3
me (Griffiss AFB), New York	Griffiss Apch Ctl	118.5; 363.8; 122.5G
n Antonio (Kelly AFB), Tex.	San Antonio Apch Ctl	122.5G; 123.9; 126.5; 134.1; 307.0 353.5
n Rafael (Hamilton AFB), Calif.	Hamilton AFB Apch Ctl	122.5G; 126.2
ult Ste. Marie (Kincheloe AFB), Mich.	Kincheloe Apch Ctl	118.3; 122.5G; 363.8
ictorville (George AFB), Calif.	Edwards Apch Ctl	124.4; 127.1; 137.65; 335.6; 122.5G
esthampton Beach (Suffolk AFB), N.Y.	Suffolk Apch Ctl	126.2; 122.5G; 236.6
rightstown (McGuire AFB), N.J.	McGuire Apch Ctl	122.5G; 110.6T; 134.1; 126.2

T—Transmits G—Guards

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from Headquarters USAF (AFOAPDA) via the Commanding Officer of the field concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA	X	
Balboa	FAA	X	
Cold Bay	FAA	X	
Dallas	BNF	X	
Guam	FAA	X	
Honolulu	ARINC	X	X
Miami	ARINC	X	X
New York	ARINC	X	X
New Orleans	ARINC	X	X
Okinawa	ARINC	X	X
Pago Pago	FAA	X	
Point Barrow	WEN	X	
San Francisco	ARINC	X	X
Shemya	FAA	X	
San Juan	ARINC	X	X
Seattle	ARINC	X	X
Wake Island	FAA	X	

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when close proximity to most military airports. The airfields have an unusually heavy concentration jet aircraft operating within a 25 nautical m radius and from the surface to all altitudes. Tl precautionary note also applies to the larger d airports. BE ALERT, STAY ALIVE!

December 1

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. bord should refer to complete regulations in INTER TIONAL FLIGHT INFORMATION MANUAL, Volu 12, April 1964. Pilots must report for inspection at ti of each entry to avoid inconveniences, additional penses and penalties.

December 1

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law forcement agencies in combating the smuggling of ille aliens and contraband into the U.S. by private aircr If you have information of any kind that might rel to smuggling by air, please contact the nearest U.S. I migration and Naturalization Service or U.S. Bureau Customs office at once. The local FAA office will pass information along for you, if you so desire. Awards original information are paid by Customs under certa circumstances.

December 1

●AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

Automatic Terminal Information Service (ATIS) the continuous broadcast of recorded noncontrol inf mation in selected high activity terminal areas. purpose is to improve controller effectiveness and to lieve frequency congestion by automating the repeti transmission of essential but routine information.

ATIS is now available at high activity terminal a ports listed at the end of this Notice. Information su as ceiling, visibility, wind, altimeter, instrument a proach, and runways in use is continuously broadcast the voice feature of a TVOR/VOR/VORTAC located or near the airport, or on a discrete VHF tower f quency. Pilots of aircraft arriving or departing t terminal area can receive the continuous ATIS broa casts at times when cockpit duties are least pressi and listen to as many repeats as desired.

Sample Broadcast:

"THIS IS WASHINGTON NATIONAL AIRPORT I FORMATION BRAVO CEILING MEASURED TW THOUSAND, OVERCAST, VISIBILITY SI SMOKE. WIND ONE SIX ZERO DEGREES A FIVE. ALTIMETER TWO NINER NINER TW VOR RUNWAY ONE FIVE APPROACH IN US

LANDING RUNWAY ONE EIGHT. DEPARTURES ON RUNWAY ONE FIVE. NOTAM, GEORGETOWN RADIO BEACON OUT OF SERVICE. INFORM WASHINGTON APPROACH OR GROUND CONTROL ON INITIAL CONTACT THAT YOU HAVE RECEIVED INFORMATION BRAVO."

Pilots hearing the ATIS broadcast should, on initial ntact with the tower or approach control, repeat the ecific phonetic alphabet code word (Alpha, Bravo, arlie, etc.) appended to each ATIS message. This ill indicate that the pilot has received the latest inrmation and obviate the need for the controller to reat the information.

Example: ". . . I HAVE RECEIVED INFORMATION BRAVO"

ATIS broadcasts will be updated when there is a sigficant change in information contained therein. Terinal controllers will issue pertinent information to lots who do not acknowledge receipt of the ATIS mesge, or who acknowledge receipt by an alphabet code ord which is not current.

Pilots are urged to cooperate in the ATIS program ce it relieves frequency congestion on approach conol, ground control and local control frequencies.

ATIS Locations

Airport Location	*Voice Facility*	*ATIS Frequency*	*Information Broadcast*	*Hours L.S.T.*
w York	JFK VORTAC	115.9 mc	Departure	0000–2400
Kennedy	DPK VORTAC	111.2 mc	Arrival	0000-2400
	COL VORTAC	108.2 mc	Arrival	0000–2400
n Nuys	VOT	109.0 mc	Arrival/	0000–2400
			Departure	0000-2400
icago	Discrete VHF	124.2 mc	Arrival/	0000-2400
O'Hare	ORD VORTAC	111.6 mc	Departure	
n			Arrival/	
Francisco	SFO LVOR	111.2 mc	Departure	0000–2400

February 1965

SPECIAL CIVIL AIR REGULATION NO. 456

Effective immediately the provisions applicable under ecial Civil Air Regulation No. 456 will apply as fows:

Air traffic clearances to aircraft of Cuban registry not gaged in scheduled International Air Service in U.S. rspace will require that flight be conducted on one of e following routes and a landing be made at Kennedy ternational Airport. In the event alternates are necesry due to weather, such alternates will be Logan Interional Airport and Dulles International Airport in that der.

Flights from Montreal to Kennedy below FL 180 will routed via V-282, V-203, V-91, V-475, DPK. Those at 180 and above will be routed via St. Eustache V-91, B, J-75, ALB, POU, V-91, V-475, DPK. Flights from nnedy to Montreal below FL 180 will be routed via und Intersection, POU, V-487. Those at FL 180 and ve will be routed via Sound Intersection, POU, ALB, 75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be uted via MSS, V-203, ALB, V-91, V-475, DPK. Those FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-368, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-368, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

December 1964

Exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations

The Department of the Air Force has been issued an exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations to conduct certain Radar Bomb Scoring (RBS) training missions at or above Flight Level 300 within 75 nautical miles of the sites listed below. A navigation aid will be listed to define the center of the complex if such an aid is so located. If a NAVAID is not located at the center, the center will be defined by bearing/distance from a High Altitude Navigation Aid.

The NIKE/RBS Complexes used are:

Providence 280°/35NM
Windsor VORTAC
Presque Isle 087°/20NM
Kennedy VORTAC
Boston VORTAC
Rapid City 110°/33NM
Dupree VORTAC 010°/114NM
Syracuse VOR 018°/48NM

PILOT-TO-FORECASTER WEATHER SERVICE

Pilot-to-Forecaster Service (PTFS) in the general area of the Washington ARTCC is provided for the purpose of the direct pilot/forecaster exchange of meteorological information when **weather conditions are critical, changing rapidly** or **when the direct advice of a professional aviation meteorologist is considered necessary.** Routine requests for weather information or pilot reports should be directed to the nearest FAA Flight Service Station (FSS).

PTFS is available on the radio frequency of 122.6 megacycles (mc) within communications range of the following FAA FSS locations:

Washington, D.C.
Elkins, West Virginia
Richmond, Virginia
Roanoke, Virginia
Front Royal, Virginia
Rocky Mount, North Carolina

Air/ground calls should be made to "Washington Forecaster" for direct communications with a U.S. Weather Bureau Meteorologist who is currently familiar with weather in the area. This service is available from 1200Z to 0200Z (7:00 a.m. to 9:00 p.m., EST). Emergency weather service during other periods may be made available by contacting the flight service specialist (when VFR) or the Washington ARTCC (when IFR) and requesting that "Washington Forecaster" communicate on 122.6 mcs.

December 1964

•MEA, MCA, MOCA, MRA, MAA

Effective following immediately, following flight procedures are authorized V–115 & 875 CHA VOR to Riceville INT, Tenn. MEA 3000 ft; Riceville INT, Tenn. to Sweetwater INT, Tenn. MEA 4000 ft, MOCA 3300 ft; Sweetwater INT, Tenn. to TYS VOR MEA 3000 ft.

Effective 12–27–64 MEA V–49 MYS to ABB and V–171 LOU Livonia Int, Ind. raised to 3000 ft.

Effective 1/28/65, following flight procedures authorized: V–29 ART VOR to MSS VOR MEA 3000 ft, MOCA 1700 ft. Cancel Lisbon Int. N.Y. 045 ART and 182 OW.

Effective 2–4–65, following flight procedures authorized: V–46, Oyster INT, N.Y. to Clam INT, Mass. MEA 2000 ft, MOCA 1000 ft; Clam INT to ACK MEA 2000 ft, MOCA 1700 ft.

February 1965

VFR PRACTICE INSTRUMENT APPROACH PROCEDURES

VFR practice instrument approach procedures at the following locations are published for and used by USAF Air Training Command pilots:

Cotulla, Tex.	Radio Beacon	JAL–907–ADF
Draughon-Miller Arpt. Temple, Tex	VOR	JAL–809–VOR
Cotulla, Tex.	VOR	JAL–907–VOR
Howard County Arpt. Big Spring, Tex.	VOR	JAL–5019–VOR
Rock Springs, Tex.	VOR	JAL–111–VOR–3
Sequin AF Aux., Tex.	Beacon	AL–5223–ADF
Vance AFB, Woodring, Okla.	VOR	JAL–135–VOR–3

These approach charts are published by the USAF Aeronautical Chart and Information Center in a loose-leaf format. Civil aviation requests for these cha should be submitted to the Director, Coast and Geode Survey, 14th and Constitution Avenue, N.W., Attentic Distribution Division Washington, D.C. 20230.

December 1

SPECIAL CIVIL AIR REGULATION NO. SR 454

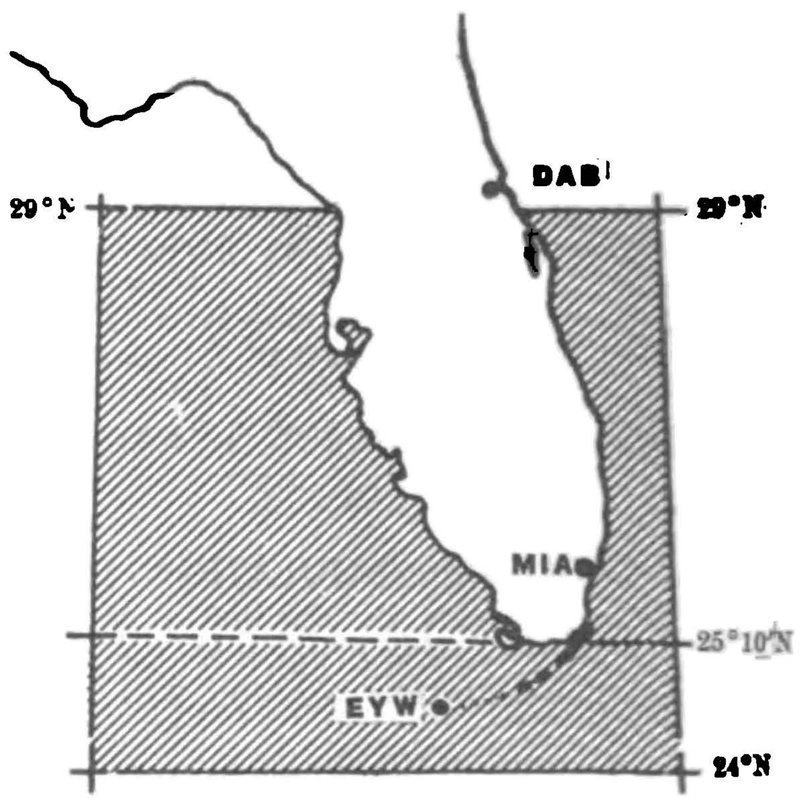
The following special rules of SR 454A are in eff No person may operate any civil aircraft:

(1) Over water and outside the land mass of the St of Florida beginning at 29°N lat., 85°W long., the clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79° W long., to 24°N lat., 85°W long., to the point of beg ning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has b approved by an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigati and communications equipment necessary to maint two-way radio contact with air traffic control facilities all times during the operation, and the pilot in comma monitors the radio frequencies specified by air tra control.

SR 454A is applicable to the land mass between 25°1(and 29°00′N whenever activated by NOTAM.



•New Flight Assistance Service Facility Tests

Two new methods of providing flight assistance servic at airports will be field tested by FAA for a six-mon period beginning about January 1, 1965.

A part-time, Flight Service Facility (FSF) will evaluated at five airport locations—one in each FAA d mestic region. During open hours, these facilities w provide the terminal flight services now available at reg lar Flight Service Stations (FSSs).

An unmanned Airport Information Desk (AID) will tried at 16 other locations. It will provide "do-it-yoursel flight planning services and will have current weather i formation available and direct communications to th nearest FSS.

The five FSF test sites with control FSS shown in parenthesis are:

Myrtle Beach, South Carolina (at Cresent Beach) Florence, South Carolina)
Manhattan, Kansas (Salina, Kansas)
Junction, Texas (San Antonio, Texas)
Delta, Utah (Salt Lake City, Utah)

The AID test sites with control FSS shown in parenthesis are:

Jamestown, New York (Bradford, Pennsylvania)
Laconia, New Hampshire (Montpelier, Vermont)
Pittsfield, Massachusetts (Albany, New York)
Frankfort, Kentucky (Lexington CS/T)
Aiken, South Carolina (Florence, South Carolina)
Auburn, Alabama (Montgomery, Alabama)
Lakeland, Florida (Tampa, Florida)
Liberal, Kansas (Garden City, Kansas)
Marion, Indiana (Indianapolis, Indiana)
•Mt. Vernon, Illinois (St. Louis, Missouri)
Kerrville, Texas (San Antonio, Texas)
Ruidoso, New Mexico (Roswell, New Mexico)
Altus, Oklahoma (Wichita Falls, Texas)
Twin Falls, Idaho (Burley, Idaho)
Tacoma Industrial Airport, Washington (Seattle, Washington)
Aspen, Colorado (Denver, Colorado)

The FSF test facilities will be manned by flight service ecialists and will normally operate 12 hours a day, ven days a week. The hours of operation will be tailored the requirements of each location. Pilots may contact FSF within 15 nautical miles of the FSF airport by lling on 121.7, 121.9 mcs. and listening for reply on e same frequency. In radio calls, use the name of the SF airport followed by the word "radio"; e.g., "Cres-nt Beach radio this is N1234V, over."
The FSFs will also guard the 121.5 mc. emergency fre-ency during open hours for the test period.

Pilots should check NOTAM information for commissioning dates of each of the facilities listed above.

Pilots are invited to use and evaluate these services. Comments and suggestions should be forwarded to:

Director, Air Traffic Service
Federal Aviation Agency
800 Independence Avenue, S. W.
Washington, D. C. 20553

February 1965

CHART CORRECTIONS

•Correct C&GS High Altitude Enroute Chart H-3 dated with charts effective 7 Jan 1965 are incorrectly dated 10 Dec 1964. All airspace information on these two charts is correctly depicted current as of 7 Jan 1965. Charts are effective until 4 Feb 1965.

January 1965

•Correct C&GS High Altitude Enroute Chart H-3 dated January 7, 1965, Panel D, by changing Nantucket VORTAC frequency to 112.7 and channel to 74.

February 1965

•Daytona Beach, Municipal Airport Fla.

Raceday Feb. 14, 1965

VFR arrivals report Daytona Beach Arrival Control 10 miles out. When inbound on heading of 090° thru 269°, use 119.7 mc—278° thru 089°, use 118.1 mc. If transmitting 122.5 mc only, advise listening frequency. When established on downwind leg advise Daytona Beach tower on 120.7/122.5 mc, with aircraft type and identification.

Aircraft are requested to maintain a pattern close to airport boundary.

Except for landing/take-off, no aircraft are permitted within 5 miles of Daytona Beach Auto race track below 2000 feet.

February 1965

Washington •DISTRICT OF COLUMBIA

TEST EVALUATION OF VFR ARRIVAL AND DEPARTURE RADAR TRAFFIC INFORMATION SERVICE

VFR Radar Traffic Information Area

GENERAL PROCEDURES: The Washington VFR Radar Traffic Information Area is that airspace which extends upwards to an altitude of four thousand feet, MSL inclusive, and is encompassed by a line connecting the following points: Rockville, Laurel, Shadyside, Hughesvill, Indian Head, Centreville, and Herndon. (See chart on facing page.)

Pilots of aircraft without radio, as well as those unable to contact VFR Arrival or Departure Information Service on assigned frequencies, are urged to conform to routing via designated VFR arrival and departure routes.

Pilots operating VFR flights destined for Washington National Airport should follow the designated arrival and departure routes listed herein in order to maintain a safe, orderly flow of air traffic in the Washington area.

All aircraft arriving or departing Washington National Airport should proceed with caution when in the vicinity of Andrews AFB.

If destination is other than Washington National Airport, so advise.

THE RADAR SERVICE DESCRIBED HEREIN IS NOT INTENDED TO RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. IT IS PROVIDED TO AID HIM IN HIS VISUAL SURVEILLANCE BY CALLING TO HIS ATTENTION PERTINENT TRAFFIC. PILOTS ARE REMINDED THAT THE SURVEILLANCE RADAR UTILIZED BY THE CONTROLLER DOES NOT PROVIDE ALTITUDE INFORMATION.

The following procedures should be adhered to by pilots of VFR flights desiring this service and having proper radio equipment when arriving at and departing from Washington National Airport.

ARRIVAL PROCEDURES: Arriving VFR flights desiring traffic information should contact Washington Traffic Information Service on 119.3 mcs/338.2 mcs UHF when approaching from Laurel, Shadyside RBN, and Hughesville; or on 120.1 mcs/306.3 mcs UHF when approaching from Indian Head, Centreville, Herndon, and Rockville. When practicable, pilots should follow the appropriate VFR arrival route as indicated (See Chart) and maintain listening watch on traffic information frequency until further advised. Landing information will be furnished to aircraft destined for Washington, and radar traffic information will be provided until the pilot is advisesd to contact the tower.

DEPARTURE PROCEDURES: VFR flights departing fr Washington Airport desiring traffic information shou request the service on initial contact to Ground Contr The pilot should also advise his proposed direction flight; e.g., "VFR Information Service, Laurel." F lowing take-off, the tower will advise the pilot when contact Washington Information Service and the f quency to be used. Flights proceeding to Laurel, Shad side, and Hughesville will use 119.3 mcs/338.2 mc UHF. Flights proceeding to Indian Head, Centrevil Herndon, and Rockville will use 120.1 mcs/306.3 mcs UH Pilots should depart the Washington Terminal area via t designated VFR departure route most nearly aligned wi their destination. They should also maintain listeni watch on the appropriate information service frequen until cleared to leave the frequency or beyond the peri eter fix.

Washington National Airport

Arrival Routes

Northeast—Report Laurel. Proceed well right of Was ington-Baltimore Parkway to Beltsville, then north Washington to Chain Bridge.

East—Report Shadyside RBN. Proceed via Brand wine to Fort Washington. Caution—Military conve tional and jet traffic vicinity of Andrews AFB Contr Zone.

Southeast—Report Hughesville. Proceed via Waldo to Fort Washington. Caution—Andrews jet penetrati inbound on Andrews VOR 187 degree radial descendi to cross Andrews LFR at 1500 feet MSL.

Southwest—Report Indian Head. Proceed on right si of Potomac River until past Mount Vernon.

West—Report Centreville. Proceed well right of U. Route 29 highway to Falls Church.

Northwest—Report Herndon. Proceed well right of P tomac River to Falls Church.

North—Report Rockville. Proceed well left of Potom River to Chain Bridge.

Departure Routes

Northeast—Proceed via west bank of Anacostia Riv to Riverdale and well right of Washington-Baltimo Parkway until past Beltsville Airport.

East—Proceed via Fort Washington and Brandywi to Shadyside.

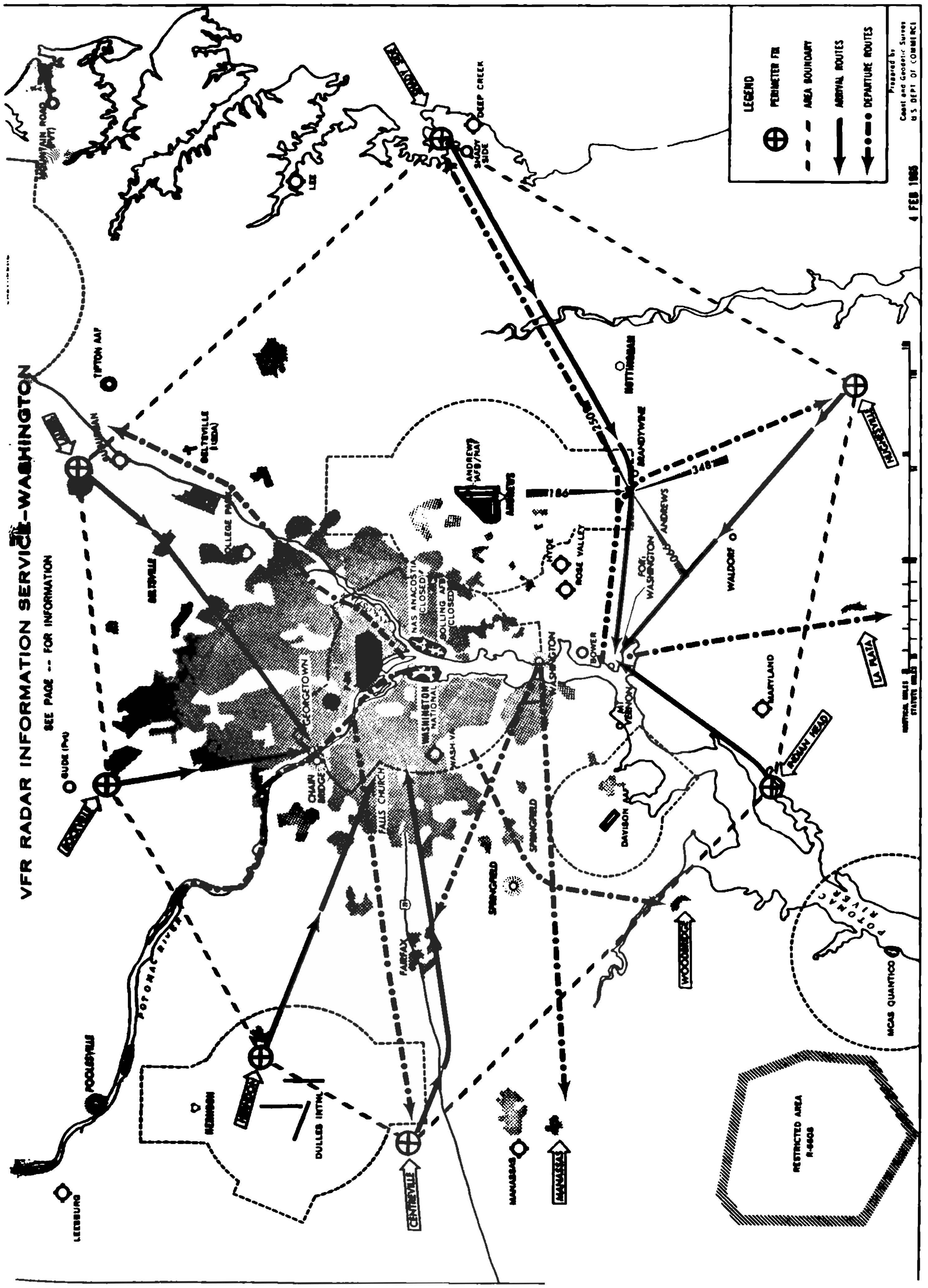
Southeast—Proceed via Fort Washington and LaPlata.

Southwest—Proceed well right of Potomac River un past Woodbridge.

West—North departures proceed well right of U Route 29 highway until past Centreville. South dep tures proceed via Washington LFR to Manassas.

Northwest—North departures proceed via Potomac Riv until leaving the area. South departures proceed v Washington LFR to Fairfax.

DISTRICT OF COLUMBIA


VFR RADAR INFORMATION SERVICE—WASHINGTON
SEE PAGE -- FOR INFORMATION
LEGEND
PERIMETER FIX
AREA BOUNDARY
ARRIVAL ROUTES
DEPARTURE ROUTES
Prepared by
Coast and Geodetic Survey
U.S. DEPT OF COMMERCE
4 FEB 1965
BUCKEYE (PVU)
TIPTON AAF
BALTIMORE
BALTIMORE (MTN)
BALTIMORE (BWI)
GLEN BURNIE
ANNAPOLIS
ANNAPOLIS
ANDREWS AFB/NAF
ANDREWS
ANDREWS
ANDREWS

Atlanta GEORGIA

TERMINAL RADAR SERVICE AREA

(An Evaluation of Terminal Area Positive Separation)

The Air Traffic Service, FAA, has developed a program to evaluate a concept of providing a positive separation service to aircraft operating within a terminal area. The airspace area where this evaluation will be conducted will be known as a Terminal Radar Service Area (TRSA). During the evaluation period, a true positive separation environment will not be guaranteed.

This program is in consonance with the report of the Task Force on air traffic control (Project Beacon) and the subsequent Air Traffic Service analysis of the report.

A program for positive separation of aircraft operating in terminal airspace, regardless of weather conditions, must be able to satisfy the many varied requirements of both the VFR and IFR users without imposing excessive restrictions to their operations, yet it must be within the capabilities of the air traffic control system.

In consideration of these two major stipulations, the program will initially be implemented on a voluntary basis, whereby pilot participation will be encouraged rather than required. In this respect, it is obvious that considerable cooperation and effort must be expended jointly by the Federal Aviation Agency (FAA) and the airspace users, if a realistic evaluation is to be made.

Generally, the objective of this evaluation is to determine the following:

1. Airborne equipment and pilotage requirements.
2. Operating personnel, equipment, procedural and airspace requirements.
3. Impact on the over-all terminal operation.
4. Capability of the air traffic control system to provide positive separation to all aircraft operating within a terminal area.
5. Need for regulatory action.

Following a thorough and complete analysis of this evaluation, FAA in cooperation with the users, will determine the necessary requirements for implementation of a positive separation system in high activity terminal areas, wherein all aircraft would be provided separation by the ATC system, irrespective of weather conditions.

The size and shape of the TRSA will vary depending upon operational requirements. This area may be shown as a circular radius or other configuration and should be no larger than absolutely necessary to adequately perform the control functions.

Implementation

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia, as the first of selected locations to thoroughly evaluate the program.

In addition to the following details and procedures, information has been provided on appropriate charts, other aeronautical flight information publications a through representative user organizations.

The Atlanta Terminal Radar Service Area is that airspace extending upward from the surface to and including 6,000 feet MSL within the Atlanta Airport Control Zone; and, in addition, that airspace extending from 2,000 feet MSL to and including 6,000 feet MSL within a 15 statute mile radius of the Atlanta Airport, excluding Dobbins AFB Control Zone and the airspace within a 1½ mile radius of the Edwards Skyport and the Gunn Airport; EXCEPT that the base of the airspace area within the Fulton County Airport control zone is 2,500 feet MSL.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlan TRSA shall be operated in accordance with curre IFR procedures.
2. **VFR Flights**

   a. Airports within the Atlanta TRSA:

      (1) Arriving aircraft will be expected to conta Atlanta Terminal Control on specified fr quencies and in relation to geographical fix listed in d. below.

      (2) Departing aircraft will be advised by the tow when to contact departure or terminal co trol and the frequency to be used.

   b. Airports underlying the Atlanta TRSA:

      (1) Unless flight will be conducted below the flo of the TRSA, arriving aircraft will be e pected to contact Atlanta Terminal Contr on specified frequencies and in relation geographical fixes listed in d. below.

      (2) Departing aircraft will be expected to conta Atlanta Terminal Control on the frequen specified in d. below as soon as possible afte becoming airborne if it is desired that flig be conducted within the TRSA.

   c. Transiting Aircraft—Aircraft desiring to trans the TRSA will be expected to contact Atlant Terminal Control on specified frequencies and i relation to geographical fixes listed in d. below.

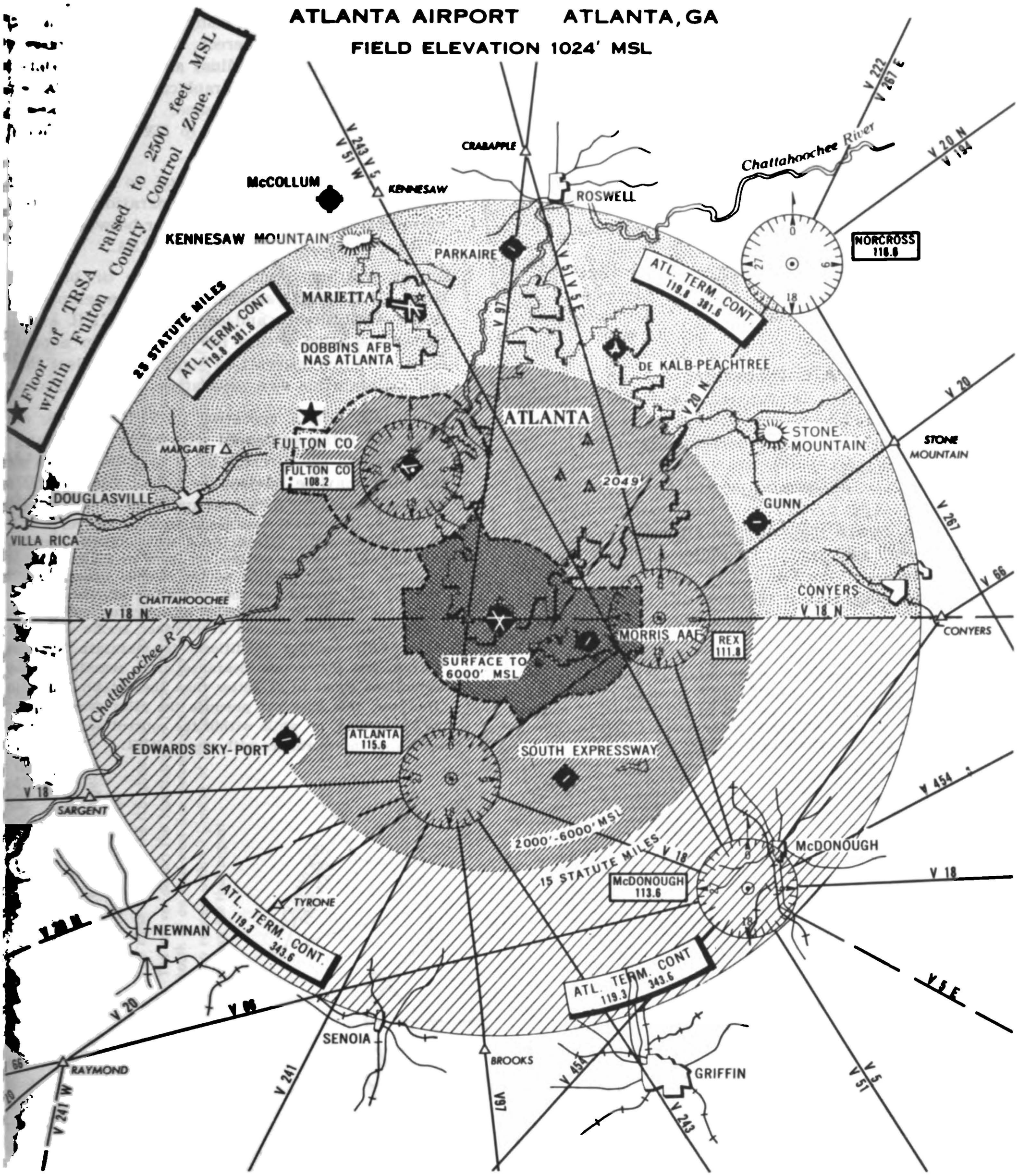
   d. Frequencies and Fixes—En route aircraft shoul establish communications with Atlanta Termin Control approximately 25 miles from Atlanta Air port. Aircraft entering the TRSA north of Air way V-18N should use 119.8 or 381.6 MC; Aircraf entering the TRSA south of Airway V-18N shoul use 119.3 or 343.6 MC. Aircraft not equipped fo two-way communications on these frequencie should transmit on 122.7 MC and listen on th appropriate frequency specified above.

      In addition to published radio fixes and othe prominent geographical fixes, the following geo

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024' MSL



LEGEND

TERMINAL RADAR SERVICE AREA — 2000'-6000' — SURFACE TO 6000'

CONTACT OR CALL-UP AREAS — North of V 18 N; South of V 18 N

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

GEORGIA

graphical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	"	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conveyors	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

4. Traffic information on observed but unidentified ra targets will be provided on a workload permitt basis.
5. When VFR aircraft are being held within the TR and control is based thereon, the ATC clearance v specify the distance (radius) and, if appropriate, direction from the geographical fix within wh holding is to be accomplished. In such cases, pilot will be advised when to EXPECT FURTH CLEARANCE.
6. During weather conditions equal to or better th basic VFR, 500 feet vertical separation may be e ployed between VFR flights and/or between VFR a IFR flights operating within the TRSA.
7. During weather conditions equal to or better th basic VFR, visual separation may be employed tween VFR flights and/or between VFR and I flights operating within the TRSA when a pilot ports the other aircraft in sight and advises that can maintain his own separation from such aircra
8. When IFR flights, operating in VFR weather con tions, are being sequenced with other traffic and t pilot reports the aircraft he is to follow is in sig the pilot may be advised to follow such traffic a may be cleared for a "visual approach."

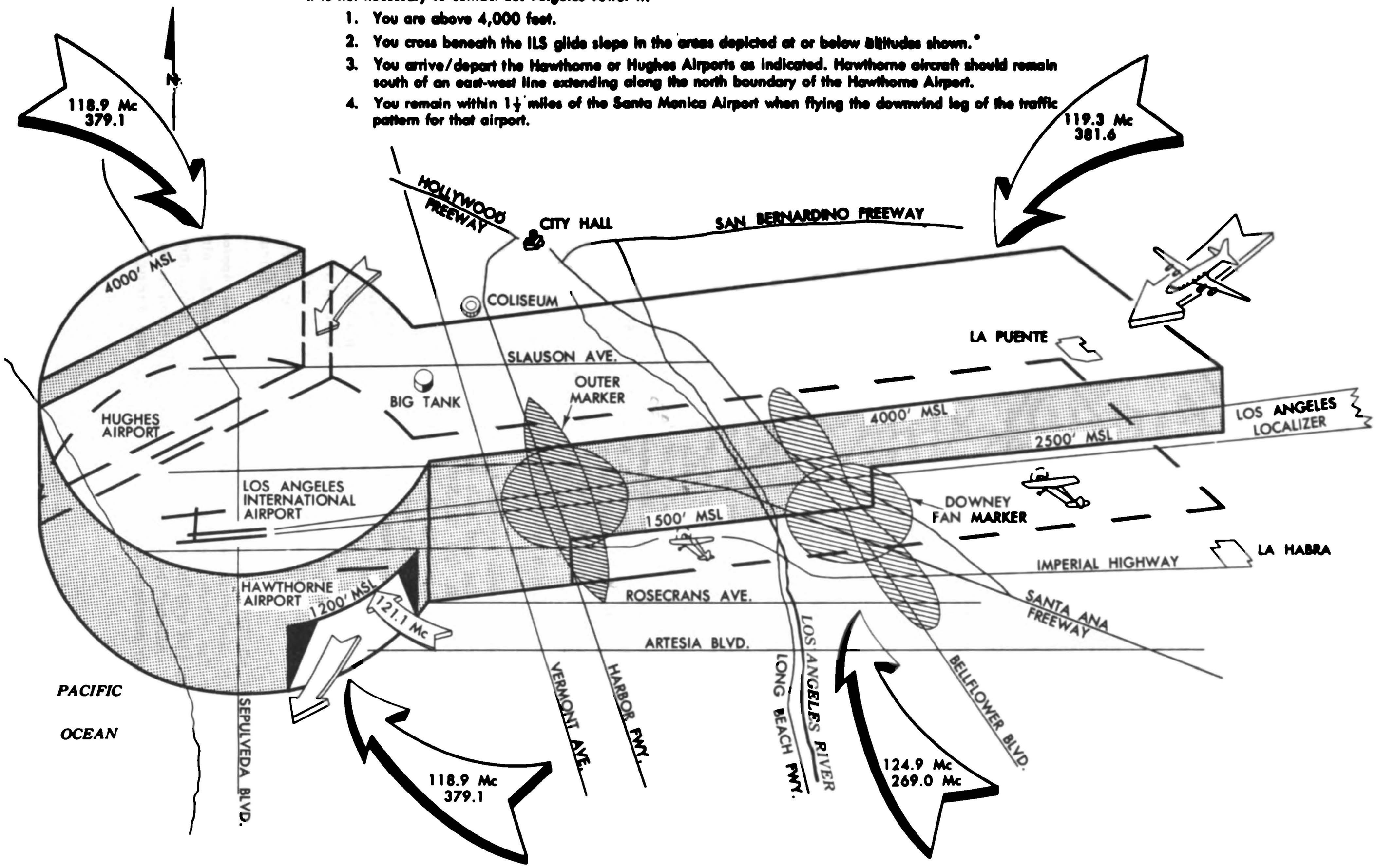
NOTE.—Basic VFR weather minima as set forth in F 91.105 shall apply within the Atlanta TRSA, except t special VFR weather minima set forth in FAR 91.107 a continue to be applicable within control zones. Appli tion of ATC procedures and separation minima within TRSA is not to be interpreted as relieving pilots of th responsibilities to see and avoid other traffic operating basic VFR weather conditions, to maintain appropri terrain and obstruction clearance, or to remain in weat conditions equal to or better than the established minir However, this does not preclude the pilot from request IFR handling, or while within the control zone, request clearance in accordance with special VFR.

LOS ANGELES TERMINAL AREA NOTICE

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. **You are above 4,000 feet.**
2. **You cross beneath the ILS glide slope in the areas depicted at or below altitudes shown.***
3. **You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.**
4. **You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.**



*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Chicago ILLINOIS

PARALLEL ILS APPROACHES—CHICAGO O'HARE INTERNATIONAL AIRPORT

Effective April 11, 1964 a revised Parallel ILS 14R&L approach procedure Amendment 1 was effective for Chicago O'Hare International Airport. ILS, radar, communications, ATC procedures and flight procedures are employed as integral parts of a total system. Under the system, Chicago Approach Control may clear aircraft to conduct Parallel ILS Approaches to Runways 14L and 14R when wind conditions permit straight-in landings and when all components of the system—except airborne or ground glide slope equipment—are operating normally. Aircraft are radar vectored to the final approach course (localizer) of either runway and the pilot executes an ILS approach. The separation between localizer courses (6,510 feet) imposes certain requirements and techniques peculiar to parallel approaches.

Requirements: To conduct a Parallel ILS Approach, aircraft must be equipped with a functioning 75 mc marker (or ADF) and localizer receivers, and have the capability to simultaneously monitor both the assigned control frequency and the appropriate localizer voice frequency when advised by ATC.

ATC Concept and Procedures: Arriving IFR aircraft en route to O'Hare Airport will be cleared by Chicago Center to one of four outer fixes (Northbrook, Niles, Lakewood, or Warren) established in the O'Hare Terminal Area and changed over to Chicago Approach Control for further clearance. On initial contact, Chicago Approach Control will advise the pilot that PARALLEL ILS APPROACHES ARE IN PROGRESS. Upon receipt of this information, **pilots who do not have required equipment** or do not wish to conduct a Parallel ILS approach, or require a specific runway, or require a radar fix in lieu of Meadow Intersection for 14L, must advise Chicago Approach Control prior to departing the outer fix. This will enable the controller to plan and provide for individual handling.

Chicago Approach Control will clear aircraft to depart the outer fix on a specified heading and at a specified altitude FOR RADAR VECTOR TO RUNWAY 14 (RIGHT/LEFT) ILS FINAL APPROACH COURSE and will specify the appropriate localizer frequency (109.7 or 110.1). After departing the outer fix, aircraft will be descended to the appropriate ILS Intercept Altitude (2,200 or 3,200 feet m.s.l.) and provided a period of level flight prior to the ILS intercept in which the pilot may dissipate any excess speed accumulated during the descent.

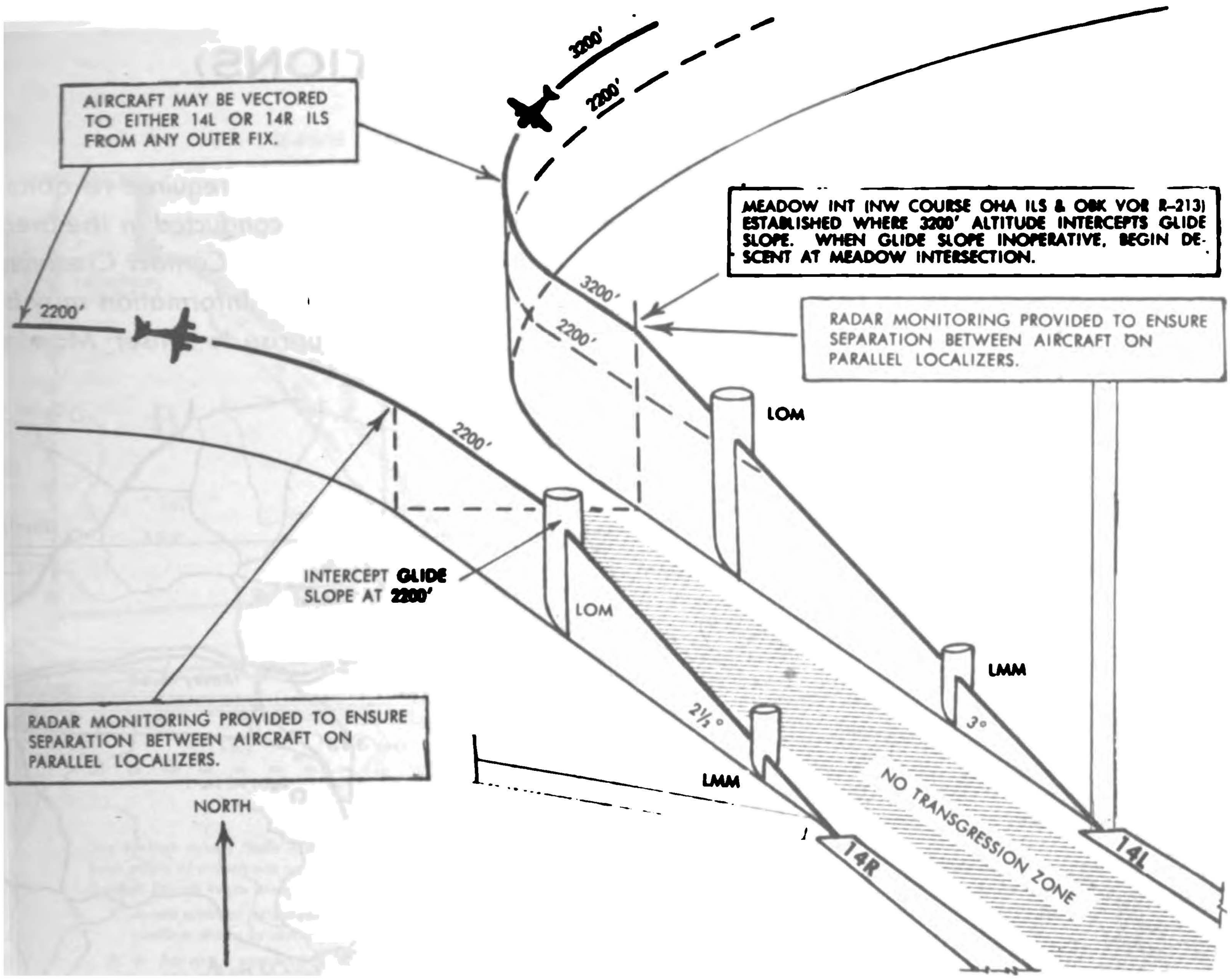
ATC Separation: Radar separation is provided between aircraft being vectored to, and while on, the same localizer course throughout the entire approach. Aircraft being vectored to Runway 14R will intercept that localizer course at 2,200 feet m.s.l. Aircraft being vectored to 14L will intercept that localizer course at 3,200 feet m.s.l., or higher. Since aircraft may be vectored to either l localizer course from any of the four outer fixes, a m mum of 1,000 feet vertical or 3 miles radar separat will be provided between the aircraft being vectored opposite ILS courses during the turn-on. The appro ate ILS Intercept Altitude is maintained by the aircr until intercepting the glide slope. After the turn-on i until aircraft are 2.3 miles northwest of the OM markers, a minimum of 1,000 feet vertical separation provided between aircraft on parallel ILS localli courses.

Localizer Interception: Aircraft will be vectored so as permit the pilot to intercept the appropriate ILS locali course at an angle not greater than 20°. After assign this final intercept heading, approach control will cl the aircraft for a parallel ILS approach. Subsequen the pilot will be changed over to O'Hare Tower and structed to monitor the appropriate localizer voice f quency (either 109.7 or 110.1 mc). When glide sl receiver or ground glide slope transmitter is inoperat the pilot will begin descent from 3,200 feet for 14L Meadow Intersection or descend from 2,200 feet for 1 at the LOM. When glide slope is out or not receive radar fix in lieu of Meadow Intersection will be provi upon pilots request or aircraft equipped with ILS VOR will start descent on 14L upon identification Meadow Intersection.

Radar Monitoring: All turn-ons and final approaches radar monitored regardless of weather conditions. Mo tor controllers will issue advisory information and c trol instructions as may be necessary to insure that craft on final approach remain within an area 1,500 either side of the localizer course. Since the prim responsibility for navigation rests with the pilot, advis information and control instructions issued on the lo izer voice frequency are limited to those necessary insure separation between aircraft. Pilots need acknowledge transmissions made by the monitor c troller on localizer voice frequency unless specific requested to do so.

A "no transgression zone" 3,510 feet wide is es lished equidistant between the centerlines of each lo izer course and displayed on the monitor radar sc Should an aircraft on final approach deviate from co and enter the "no transgression zone," the monitor troller will issue instructions as are necessary to alter course of that aircraft. Concurrently, immediate ac will be taken by the controller monitoring the adja localizer course to cause any aircraft in potential con with the intruding aircraft to alter its flight path.

Missed Approach: The missed approach procedure veloped for either runway is designed to provide sep tion from the adjacent runway. The pilot may be structed to execute the missed approach procedure at time during the approach.


AIRCRAFT MAY BE VECTORED TO EITHER 14L OR 14R ILS FROM ANY OUTER FIX.
3200'
2200'
MEADOW INT (NW COURSE OHA ILS & OBK VOR R-213) ESTABLISHED WHERE 3200' ALTITUDE INTERCEPTS GLIDE SLOPE. WHEN GLIDE SLOPE INOPERATIVE, BEGIN DESCENT AT MEADOW INTERSECTION.
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
LOM
INTERCEPT GLIDE SLOPE AT 2200'
LMM
2½°
3°
NO TRANSGRESSION ZONE
14L
14R
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
NORTH

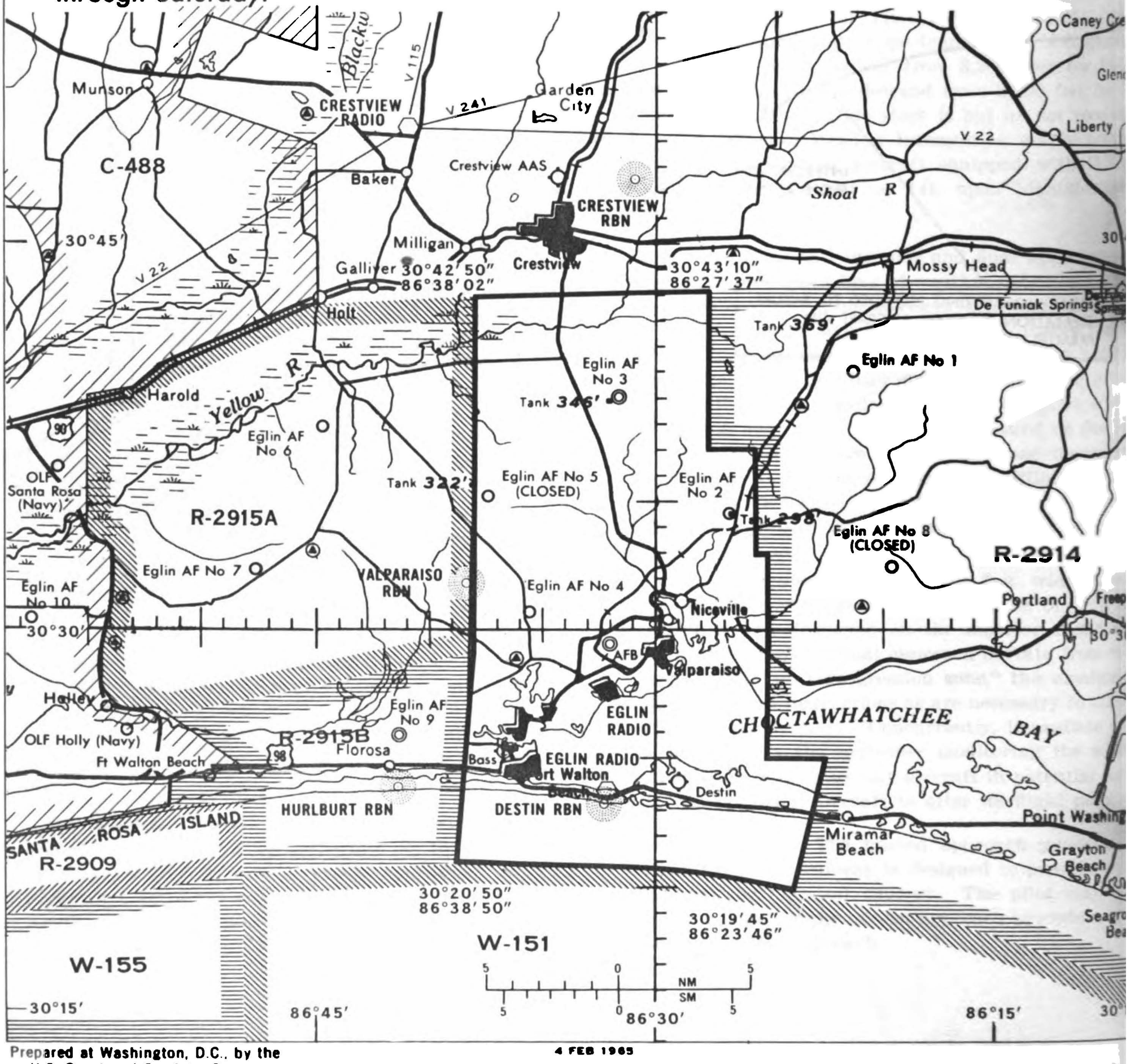
86°45′ 86°15′

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

EFFECTIVE DECEMBER 10, 1964

Prior to conducting flight operations in the area shown, pilots are required to obtain information about operating altitudes of high speed special activities conducted in the area. Normally, special activities will use not more than two altitude levels. Contact Crestview Radio, Eglin AFB RAPCON, Tallahassee Radio, or Pensacola Radio. Information may be obtained by radio or telephone. This special rule is in effect sunrise to sunset Monday through Saturday.

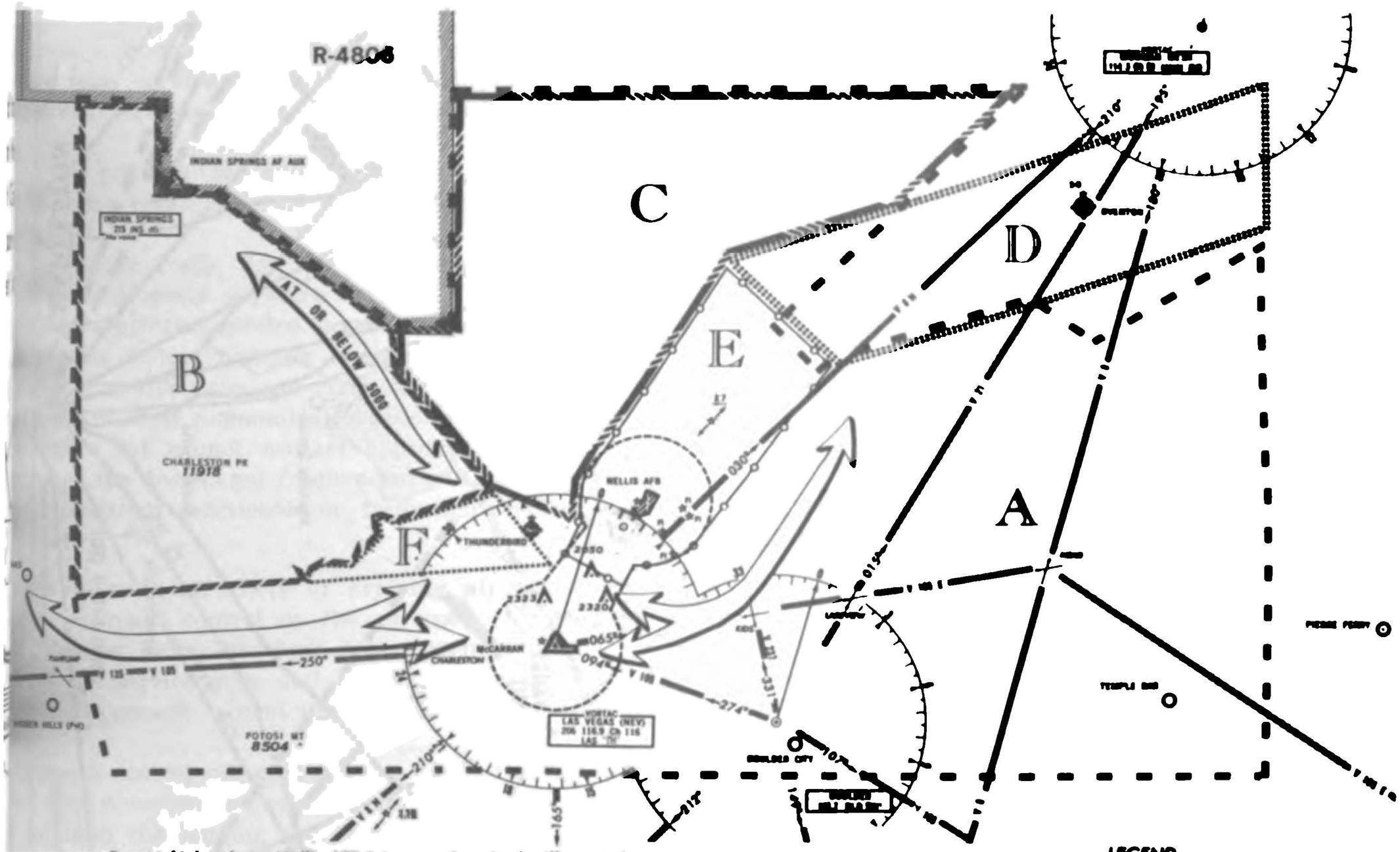


Prepared at Washington, D.C., by the U S. Coast and Geodetic Survey

4 FEB 1965

LAS VEGAS TERMINAL AREA NOTICE

LAS VEGAS, NEVADA



Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. a. *Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   b. *Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Thunderbird Airport.*

LEGEND

Nellis AFB based jet aircraft VFR departure and arrival areas. Altitudes are Mean Sea Level

A — — — 23,000
B — · — · — 5,500-23,000
C ——·—— Surface to 23,000
D ····· 8,000 & 9,000 inclv.
E —o—o—o— Surface to 9,000
F ····· 10,000 to 23,000

Recommended Itinerant VFR routes

Base And Airspace Compiled From 54th Edition Of Mt Whitney And 50th Edition Of Los Angeles Sectional Aeronautical Charts

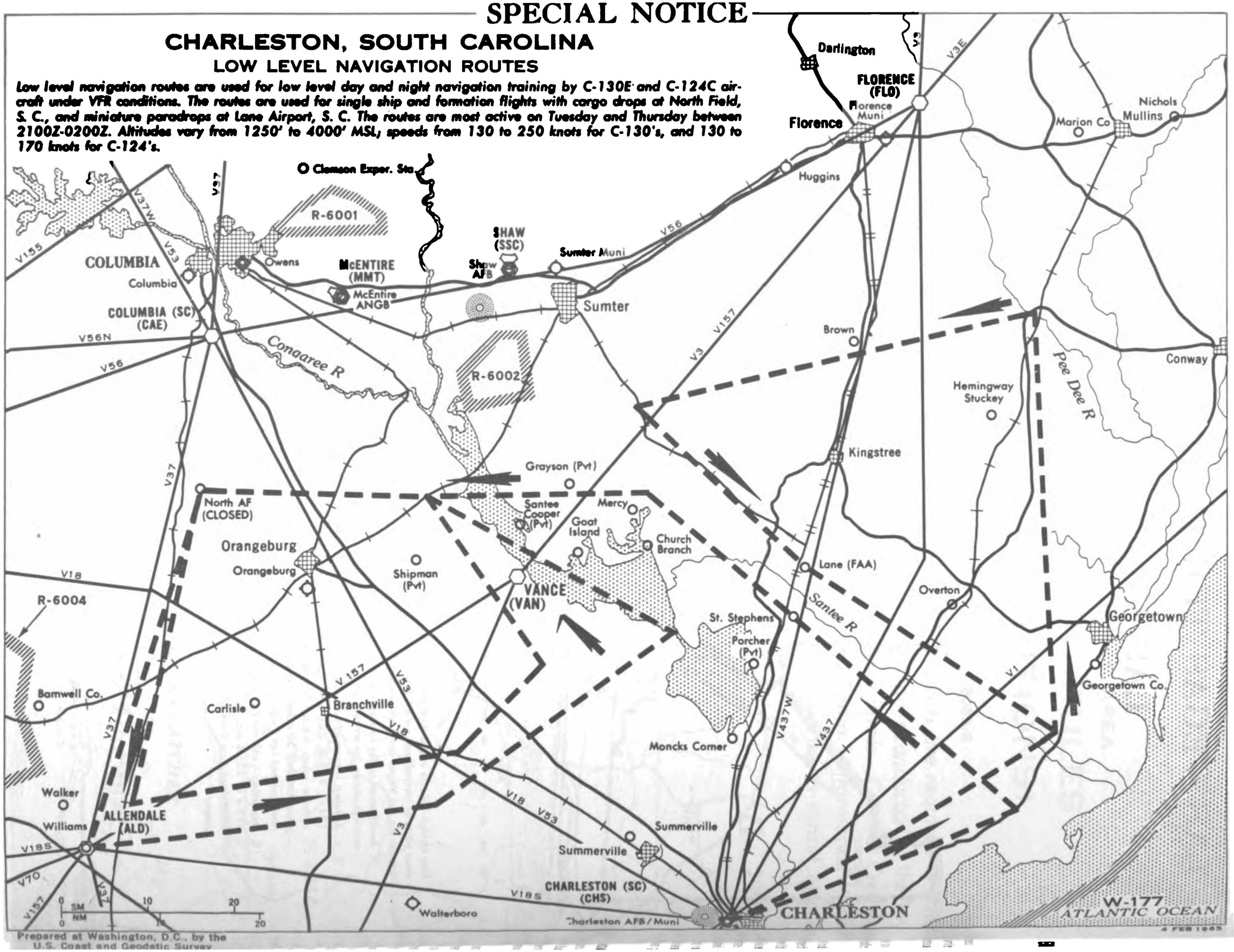
10 0 NAUTICAL 10 20 30 40 50 MILES
10 0 STATUTE 10 20 30 40 50 MILES

Prepared by
[illegible] Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

CHARLESTON, SOUTH CAROLINA

LOW LEVEL NAVIGATION ROUTES

Low level navigation routes are used for low level day and night navigation training by C-130E and C-124C aircraft under VFR conditions. The routes are used for single ship and formation flights with cargo drops at North Field, S. C., and miniature paradrops at Lane Airport, S. C. The routes are most active on Tuesday and Thursday between 2100Z-0200Z. Altitudes vary from 1250' to 4000' MSL, speeds from 130 to 250 knots for C-130's, and 130 to 170 knots for C-124's.



EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

Certain approach control facilities are providing ex-nded radar service for arriving and departing flights thin their terminal areas. These services are designed :

1. Aid pilots to see and avoid other traffic by pro-ling radar traffic information on possible conflicting affic, and

2. Improve traffic flow by giving specific routes or adings to properly sequence arrivals.

erations where this service is provided are listed at the d of this Notice together with information on the signated service area and frequency to be used. Air-aft with limited communication equipment who desire e service but cannot contact approach or departure ntrol on the designated frequencies will be given serv-e to the extent practicable on frequencies available to e pilot.

ARRIVING AIRCRAFT: Pilots of arriving aircraft should ntact approach control on the assigned frequency/ies d "Request Radar Service" when reaching the perim-er of the service area and remain in communication ith the approach control until advised to contact the wer.

Approach control will advise pilots of the runway to be ed, wind direction and velocity, and traffic information. o establish the landing sequence, pilots will be given ding instructions if required and/or specific routes or adings to fly. When a pilot reports he has the aircraft is to follow in sight, he will be directed to follow it. hen a pilot of an IFR flight, operating in basic VFR eather conditions, is instructed to follow a preceding rcraft he will be cleared for a "visual approach." This earance may be issued whether or not the IFR flight is erating within the control zone. With a "visual ap-oach" clearance, the pilot operating on an IFR flight an in VFR conditions may deviate from the prescribed strument approach procedure and proceed to the air-rt with visual reference to the surface. Radar service ill be terminated when aircraft are told to contact the wer and the tower will assign a landing sequence mber.

DEPARTING AIRCRAFT: Departing VFR aircraft desiring affic information should "Request Radar Service" on itial contact with ground control and advise proposed rection of flight. Following takeoff, the tower will ad-se when to contact departure control and the frequency be used.

When radar contact is established, departure control ill provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 120.8 mc. Aircraft not equipped for two-way communication on 120.8 mc should transmit 122.7 mc and listen on 120.8 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Houston International Airport, Tex.

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 118.3 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 123.7 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Castle AFB Terminal Area Merced, Calif.

EFFECTIVE DATE: 1 JUNE 1963

AREA WITHIN WHICH SERVICE IS PROVIDED: 20 mi radius of Castle AFB, 4000 feet and below. Aircraft entering this area or, departing from airports within this area should contact Castle approach on 118.9 mcs, 137.65 mcs or 294.5 mcs. Aircraft not equipped for two-way communications an 118.9 mcs should transmit on 122.5 mcs and receive on 118.9 mcs or 114.2 mcs.

Los Angeles International Airport, California

EFFECTIVE DATE: 22 SEPTEMBER 1964

Area within which service is provided: 25 nmi. **Arrival fre** 045–224 degrees inbound, 119.3 or 381.6 mc. 225–04 d grees inbound, 124.9 or 280.0 mc. If not so equipp trans 122.7 mc and guard above freq or LAX VOR. **D parture Freq:** tower, 118.9 mc. then departure control 125.2 or 385.4 mc when outbound 225–045 degrees, 12 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

EFFECTIVE DATE: 14 SEPTEMBER 1964

Area within which service is provided: 20 nmi, 4000' a below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground contr 121.9 mc then Indianapolis Departure Radar Servic 121.3 mc. Enroute aircraft contact Indianapolis Termin Radar Service, 118.5 mc.

•Logan International Airport, Boston Mass.

EFFECTIVE DATE: 17 FEBRUARY 1965

Area in which service is provided: Approximately 25 nau tical mile radius of Logan International Airport. **A rival frequencies:** Aircraft flying to the airport on headin of 035° through 140° should use the frequencies 126 or 281.5 mcs. Those flying headings of 141° throu 034° use 120.6 or 263.1 mcs. Aircraft not so equipp should transmit on 122.5 mcs. and listen on the appr priate frequency. **Departure frequencies:** 119.1 or 343.6 mc

•Friendship Intl Airport, Baltimore, Maryland

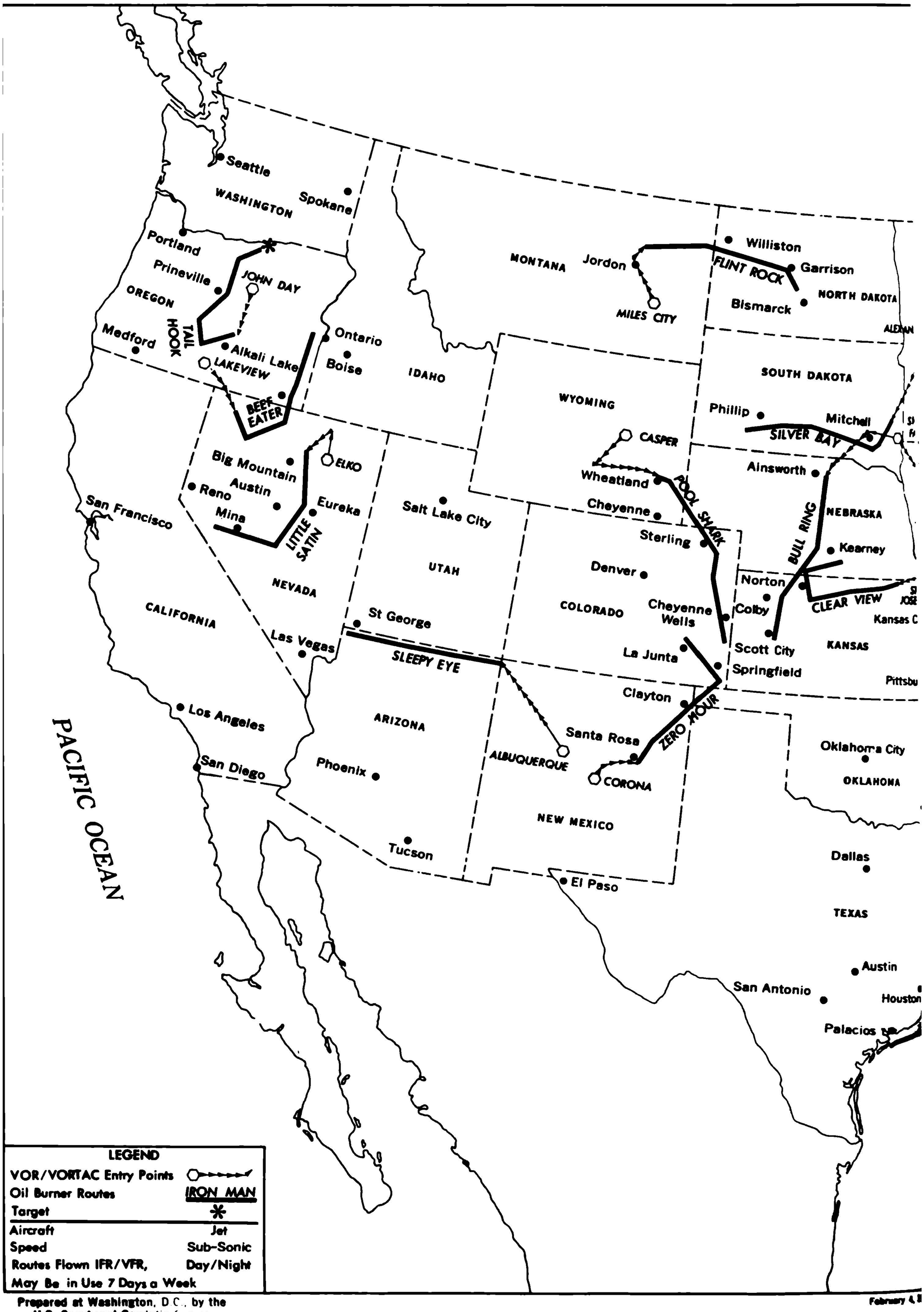
EFFECTIVE DATE: 11 February 1965

AREA IN WHICH SERVICE IS PROVIDED: Approximately 1 mi radius. **Arrival freq:** In bound on 101° thru 281° u 121.1 mc or 360.8 mc; inbound on 282° thru 100° u 125.9 mc or 307.9 mc. **Departure freq:** 120.4 or 381.4 m when advised by tower.

MILITARY AERIAL REFUELING TRACKS

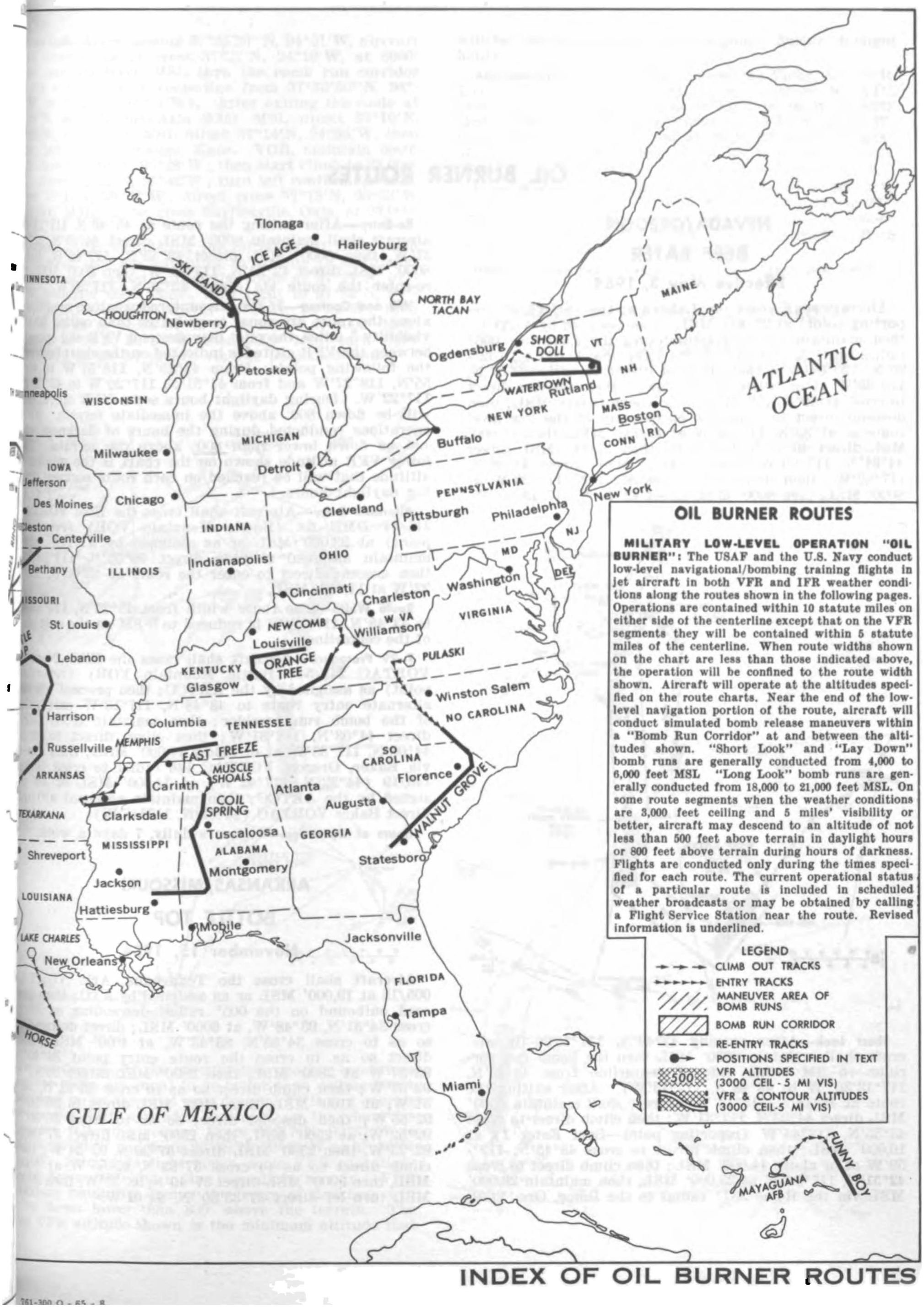
itary aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Name	Location	Ingress			Egress		
		Navaid	Bearing Degrees	Distance Miles	Navaid	Bearing Degrees	Distance Miles
k Warrior	Washington, Idaho	GEG VORTAC	224	54	MLP VOR	164	103
ler Town	North Carolina, South Carolina, Virginia, Georgia.	SPA VORTAC LYH VORTAC	233 340	47 17	LYH VORTAC SPA VORTAC	340 233	17 47
s Over Alpha	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 263	99 133	CZI VOR BOI VORTAC	263 354	133 99
s Over Bravo	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 255	79 137	CZI VOR BOI VORTAC	255 354	137 79
s Jar	Minnesota, Wisconsin	RWY VOR RWF VOR	260 140	26 30	RWF VOR ALO VORTAC	140 034	30 38
en Heart	Kansas-Nebraska	ICT VORTAC LBF VORTAC	262 005	65 42	LBF VORTAC ICT VORTAC	005 262	42 65
en Heart Lima	Kansas-Nebraska	ICT VORTAC HCT VORTAC	262 003	65 78	HCT VORTAC ICT VORTAC	003 262	78 65
stock Alpha	New York, Pennsylvania	BUF VORTAC ALB VORTAC	230 259	41 36	ALB VORTAC BUF VORTAC	259 230	36 41
stock Bravo	New York, Pennsylvania	ERI VORTAC ALB VORTAC	081 244	16 55	ALB VORTAC ERI VORTAC	244 081	55 16
Proof	Oregon	DLS VORTAC REO VOR	217 173	33 63	REO VOR DLS VORTAC	173 217	63 33
e Bug Alfa	South Dakota-North Dakota	ABR VOR DIK VORTAC	158 333	53 78	DIK VORTAC ABR VOR	333 158	78 53
e Bug Bravo	South Dakota-North Dakota	ABR VOR DIK VORTAC	174 320	66 69	DIK VORTAC ABR VOR	320 174	69 66
le Tree Alpha	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	049 236	104 34	PQI VOR ALB VORTAC	236 049	34 104
le Tree Bravo	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	060 211	102 45	PQI VOR ALB VORTAC	211 060	45 102
d Road Alfa	Wisconsin, Minnesota, South Dakota	GRB VORTAC ABR VOR	320 039	115 77	ABR VOR GRB VORTAC	039 320	77 115
d Road Bravo	Wisconsin, Minnesota, South Dakota	GRB VORTAC ABR VOR	311 052	102 65	ABR VOR GRB VORTAC	052 311	65 102
th Wind Lima Alpha	Montana, Washington	GEG VORTAC LWT VOR	001 350	72 95	LWT VOR GEG VORTAC	350 001	95 72
th Wind Lima Bravo	Montana, Washington	GEG VORTAC LWT VOR	008 354	52 74	LWT VOR GEG VORTAC	354 008	74 52
vate Eye	Louisiana, Mississippi, Tennessee	MSY VORTAC MEM VORTAC	222 212	79 63	MEM VORTAC MYS VORTAC	212 222	63 79



Prepared at Washington, D.C., by the U.S. Coast and Geodetic Survey

February 4, 1



OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 10 statute miles on either side of the centerline except that on the VFR segments they will be contained within 5 statute miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

LEGEND

- CLIMB OUT TRACKS
- ENTRY TRACKS
- MANEUVER AREA OF BOMB RUNS
- BOMB RUN CORRIDOR
- RE-ENTRY TRACKS
- POSITIONS SPECIFIED IN TEXT
- 500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
- VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

INDEX OF OIL BURNER ROUTES

761-300 O - 65 - 8

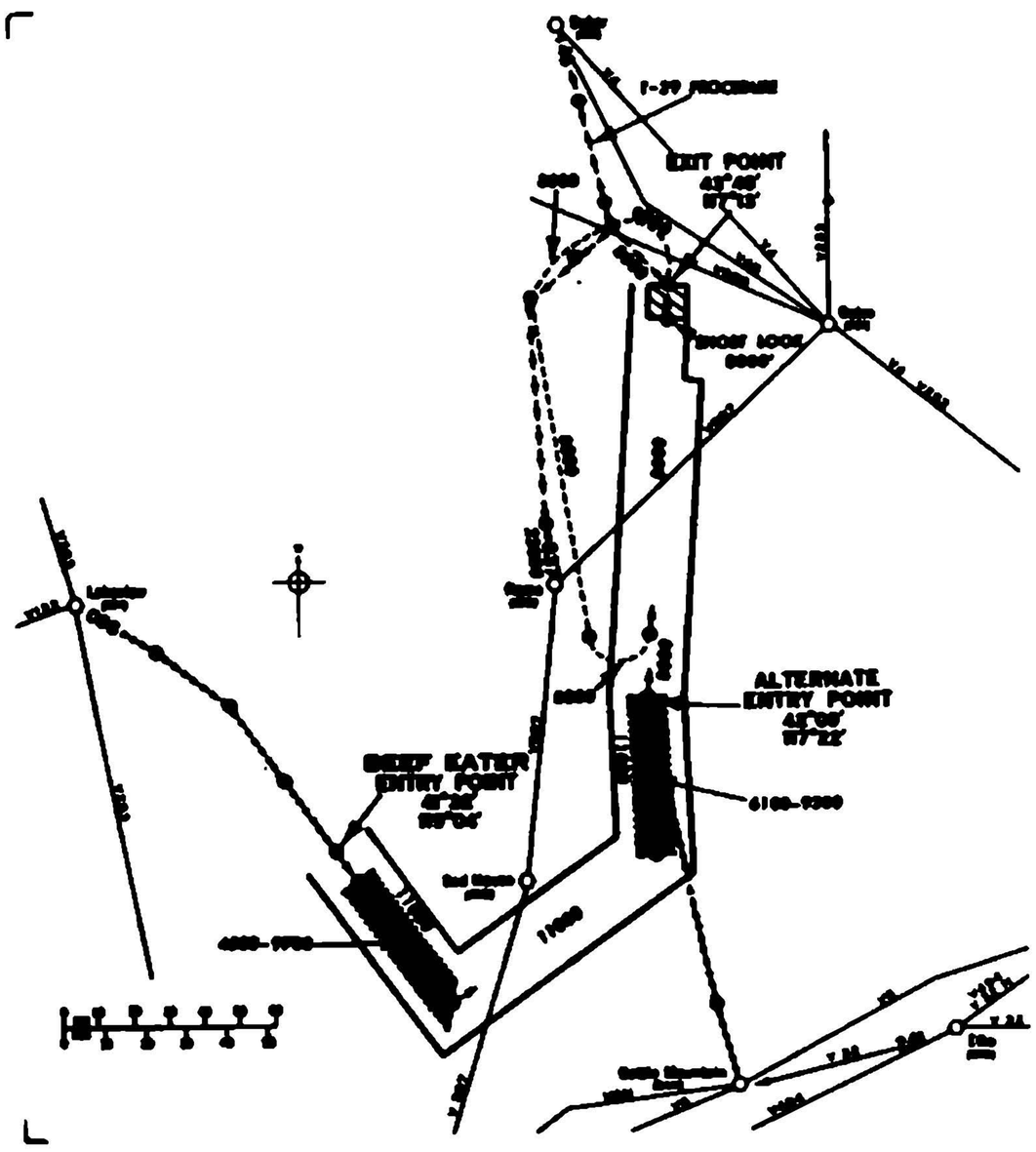
OIL BURNER ROUTES

NEVADA/OREGON

BEEF EATER

Effective May 3, 1964

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at 23,000′ MSL, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 096° radial until 22 NM east of the Lakeview VORTAC (42°-20′N, 120°04′W); then descend direct to cross 42°07′N, 119°39′W at or below 23,000′ MSL; then descend direct to cross 41°49′N, 119°21′W at or above 16,000′ MSL; then descend direct to cross the entry point of the low level route at 41°32′N, 119°04′W at 11,000′ MSL, then 11,000′ MSL direct 40°55′N, 118°27′W, then 11,000′ MSL direct 41°31′N, 117°20′W, then 11,000′. MSL direct 42°09′N, 117°22′W; then descend to cross 42°26′N, 117°20′W at 8000′ MSL, then 8000′ MSL direct 43°40′N, 117°13′30″W.



Short Leek—After passing 43°40′N, 117°13′30″W aircraft shall maintain 8000′ MSL thru the bomb run corridor (5 SM either side of centerline from 43°40′N, 117°13′30″W to 43°48′N, 117°13′W). After exiting the route at 43°48′N, 117°13′W aircraft shall maintain 8000′ MSL direct 44°03′N, 117°31′W; then climb direct to cross 43°55′N, 117°44′W (reporting point—Beef Eater 1) at 10,000′ MSL; then climb direct to cross 43°45′N, 117°-59′W at or above 14,000′ MSL; then climb direct to cross 42°51′N, 117°54′W at 23,000′ MSL, then maintain 23,000′ MSL via the Rome 337° radial to the Rome, Ore. VOR

Re-Entry—After exiting the route at 43°48′N, 117°13′ aircraft shall maintain 8000′ MSL direct 44°03′N, 117° 31′W, then 8000′ MSL direct 43°45′N, 117°59′W, the 8000′ MSL direct 42°24′N, 117°41′W, then 8000′ MSL t re-enter the route via direct 42°26′N, 117°20′W.

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and opera between the VFR altitudes indicated on the chart betwe the following points: From 41°25′N, 118°57′W to 40° 55′N, 118°27′W and from 41°31′N, 117°20′W to 42°09′ 117°22′W. During daylight hours some VFR operatio will be flown 800′ above the immediate terrain. VF operations conducted during the hours of darkness wi not be flown lower than 800′ above the terrain. Th lower VFR altitude shown on the chart is the minimu altitude that will be reached on each route segment du ing daylight hours.

Alternate Entry—Aircraft shall cross the Elko VORTA 241/54 DME fix (Battle Mountain VOR) (reportin point) at 23,000′ MSL or as assigned by ARTCC, the maintain assigned altitude direct 40°55′N, 117°01′W then descend direct to enter the route at 42°09′N, 117° 22′W at 11,000′ MSL.

Route Width—The route width from 43°25′N, 117°15′ to 43°48′N, 117°13′W is reduced to 5 SM on the east sid of the centerline.

T-29 Procedure—Aircraft shall cross the Elko, Nevad VORTAC 241/54 (Battle Mountain VOR) (reportin point) as assigned by the ARTCC; then proceed via th alternate entry route to 43°48′N, 117°13′W exit poi of the bomb run corridor; then maintain 8,000′ MS direct 44°03′N, 117°31′W; then climb direct to cro 44°08′N, 117°33′W at or below 10,000′ MSL; then dire via Baker, Oregon, VORTAC 146 radial to cross Bak 146/19 (44°32′N, 117°42′W) at 14,000′ MSL or as a signed by the ARTCC; then maintain assigned altitu direct Baker VORTAC (44°51′N, 117°48′W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

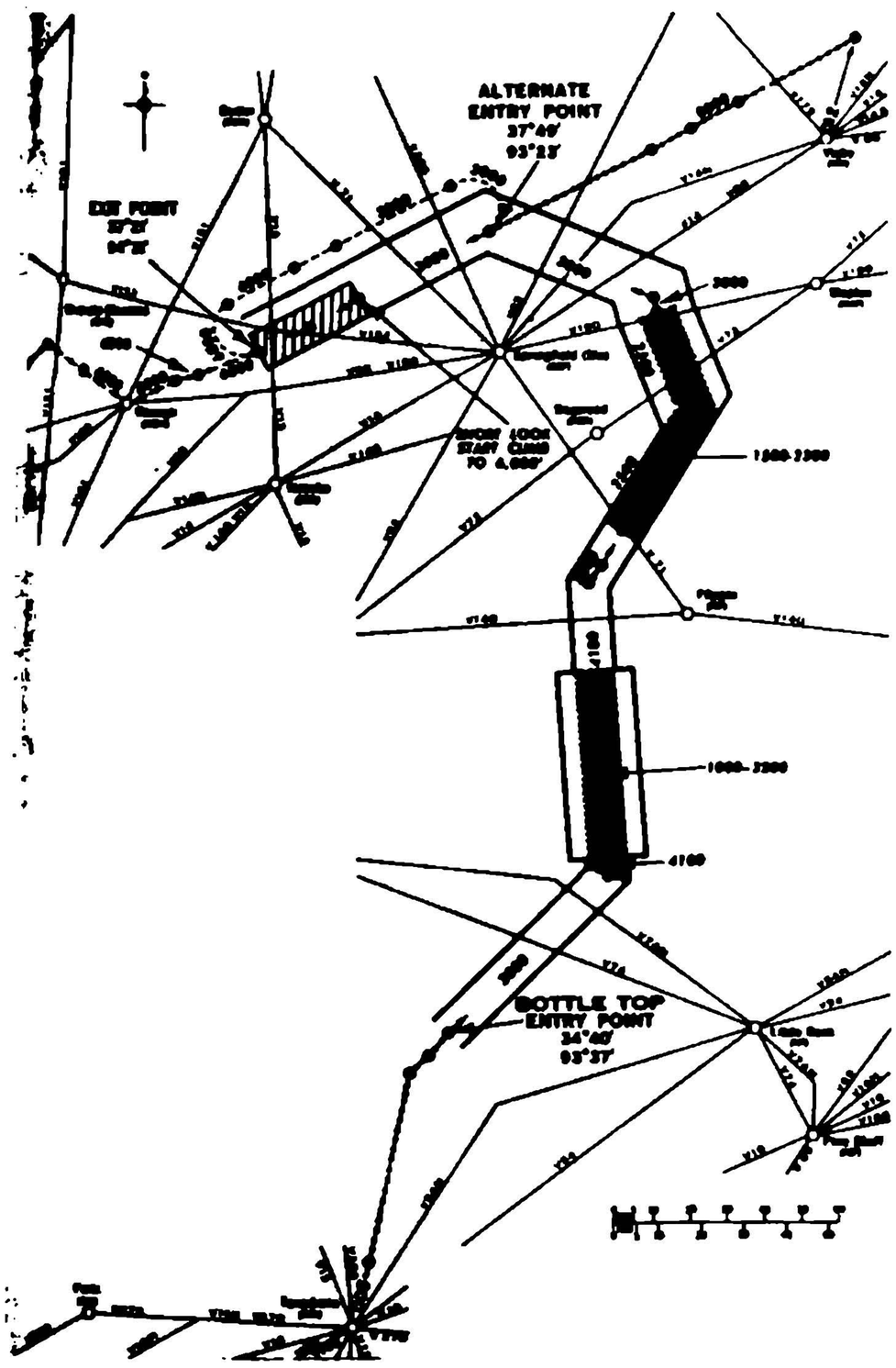
BOTTLE TOP

November 15, 1964

Aircraft shall cross the Texarkana, Ark. VORTA 005/15 at 19,000′ MSL or as assigned by ATC; then pr ceed outbound on the 005° radial descending so as cross 34°31′N, 93°48′W, at 6000′ MSL; direct descendi so as to cross 34°35′N, 93°43′W, at 4000′ MSL; th direct so as to cross the route entry point 34°40′ 93°37′W at 2800′ MSL, then 2800′ MSL direct 35°17′ 92°51′W; then climb direct so as to cross 35°21′N, 92 51′W, at 4100′ MSL, then 4100′ MSL direct to 36°26′ 92°55′W; then descend direct so as to cross 36°30′ 92°52′W, at 2500′ MSL, then 2500′ MSL direct 37°06′ 92°23′W, then 2500′ MSL direct 37°30′N, 92°34′W; th climb direct so as to cross 37°33′N, 92°35′W at 30 MSL, then 3000′ MSL direct 37°49′N, 93°23′W, then 30 MSL turn lef direct 37°33′30″N, 94°01′W.

Short Look—After passing 37°33'30"N, 94°01'W, aircraft all climb so as to cross 37°27'N, 94°16'W, at 6000' SL maintain 6000' MSL thru the bomb run corridor SM either side of centerline from 37°33'30"N, 94°-W, to 37°21'N, 94°31'W). After exiting the route at 21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 0' MSL direct Oswego, Kans. VOR, maintain 6000' SL direct 37°16'N, 95°28'W; then start climb to 23,000' SL direct 37°22'N, 95°42'W; turn left continuing climb ect 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W 16,000' MSL; direct cross Bartlesville, Okla. at 23,000' SL

le-Entry—After completing the initial Short Look bomb , aircraft that are scheduled to execute an additional nb run shall, after exiting the route at 37°21'N, 94°-W, maintain 6000' MSL, turn right to 37°32'N, 94°-W, then 6000' MSL direct 37°41'N, 94°20'W; then cend so as to cross 37°46'N, 94°08'W at 3000' MSL ect to 38°00'N, 93°34'W, then 3000' MSL turn right 37°49'N, 93°23'W, thence via the published route.



VFR and Contour—If the encountered weather conditions ng the route are equal to or better than ceiling 3000', ibility 5 miles, the pilot may descend VFR and operate ween the VFR altitudes indicated on the chart be-een the following points: From 35°17'N, 92°51'W to 05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 34'W. During daylight hours, some VFR operations l be flown 500' above the immediate terrain. VFR erations conducted during the hours of darkness will be flown lower than 800' above the terrain. The er VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Vichy, Mo. VOR-TAC 012/25 at 15,000' MSL or as assigned by ATC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34"W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°-06'N, 92°23'W is reduced to 5 SM either side of centerline and 5 SM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W.

Hours of Operation—0100Z to 1400Z, 7 days per week.

KANSAS/NEBRASKA/SOUTH DAKOTA

• BULL RING

Effective March 1 thru August 27, 1965

Aircraft shall cross the Sioux Falls VORTAC 269/55 (43°46′N, 98°02′W) at FL 230 or as assigned by ARTC; then descend direct so as to cross 43°02′N, 99°06′W at 8,000′ MSL; then at 8,000′ MSL direct to 42°54′N, 99°-17′W; then descend direct so as to cross 42°35′N, 99°31′W at 4,000′ MSL (Low Level Entry Point); then at 4,000′ MSL direct to 40°41′N, 99°38′W; then at 4,000′ MSL direct to 40°00′N, 100°10′W; then at 4,200′ MSL direct to 39°26′N, 100°36′W; then at 4,200′ MSL direct to 39°-13′N, 100°37′W; then at 4,100′ MSL direct to the entry point of the bomb run corridor at 38°50′N, 100°40′W.

Short Look and Lay Down—After passing 38°50′N, 100°-40′W aircraft shall maintain between 3,000′ MSL and 6,000′ MSL through the bomb run corridor (5 SM either side of centerline from 38°50′N, 100°40′W to 38°23′N, 100°43′W), the minimum IFR altitude through the bomb run corridor is 4,100′ MSL. After exiting the route at 38°23′N, 100°43′W, aircraft shall turn left climbing to 38°20′N, 100°26′W; then continue climb direct so as to cross 38°31′N, 100°24′W at 16,000′ MSL; then at 16,000′ MSL direct 38°40′N, 100°23′W; then at 16,000′ MSL turn left to 38°41′N, 100°41′W; then climb direct to the Dodge City, Kansas, VOR crossing 38°19′N, 100°24′W at FL 230; then at FL 230 to the Dodge City VOR.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 38°23′N, 100°43′W, turn left and climb so as to cross 38°20′N, 100°26′W at 8,000′ MSL; then at 8,000′ MSL direct 39°21′N, 99°30′W; then at 8,000′ MSL turn left to 39°31′N, 99°34′W then at 8,000′ MSL direct 39°31′N, 100°12′W; then start descent direct so as to cross 39°31′N, 100°28′ at 4,200′ MSL; then turn left at 4,200′ MSL to 39°26′N, 100°36′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′; visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°25′N, 99°32′W to 41°35′N, 99°35′W and from 39°13′N, 100°37′W to 38°-23′N, 100°43′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude on the chart is the minimum altitude that will be reached during daylight hours.

Route Width—The route width is reduced to 5 SM on each side of centerline from 40°53′N, 99°38′W to 39°-35′N, 100°30′W.

Hours of Operation—24 hours daily, 7 days a week.

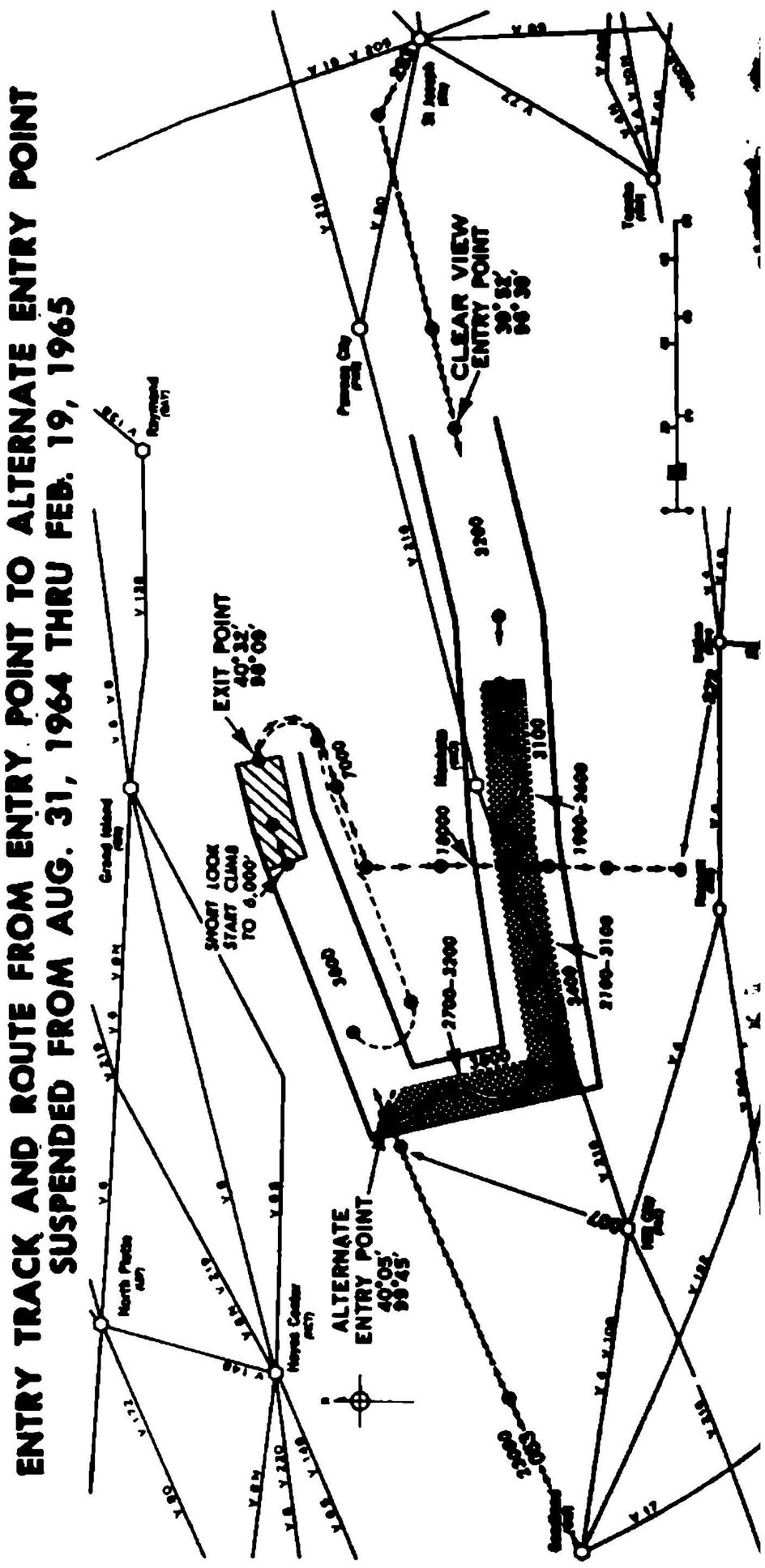
KANSAS/MISSOURI/NEBRASKA

• CLEAR VIEW

Revised Effective December 24, 1964

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 293° radial, maintain FL 240 or above until 17 NM northwest of St. Joseph VOR; turn left direct 39°56′N, 96°12′W crossing this point at 9000′ MSL, descend to 3200′ MSL direct to the route entry point at 39°52′N, 96°39′W, maintain 3200′ MSL direct 39°43′N, 97°30′W, descend to 3100′ MSL direct 39°40′N, 98°30′W, climb to 3400′ MSL direct 39°31′N, 99°34′W, climb to 3800′ MSL direct 40°05′N, 99°45′W; maintain 3800′ MSL direct 40°26′N, 98°37′W.

Short Look—After passing 40°26′N, 98°37′W, proceed direct to 40°29′N, 98°27′W climbing so as to cross this point at 6000′ MSL; maintain 6000′ MSL through the bomb run corridor (5 SM either side centerline from 40°26′N, 98°37′W to 40°32′N, 98°09′W); after exiting the route at 40°32′N, 98°09′W, turn right climbing to cross 40°20′N, 98°03′W at 7000′ MSL; then at 70 MSL direct 40°16′N, 98°16′W; then start climb so as cross 40°10′N, 98°37′W at or below 14,000′ MSL; th turn left climbing so as to cross 39°54′N, 98°37′W 18,000′ MSL; then at 18,000′ MSL direct 39°33′N, 9 37′W; then climb so as to cross 39°21′N, 98°37′W at below 23,000′ MSL, then start climb so as to cross t Salina VORTAC 272/48 at FL 250.


ENTRY TRACK AND ROUTE FROM ENTRY POINT TO ALTERNATE ENTRY POINT
SUSPENDED FROM AUG. 31, 1964 THRU FEB. 19, 1965
CLEAR VIEW ENTRY POINT
EXIT POINT
SHORT LOOK START CLIMB TO 6,000'
ALTERNATE ENTRY POINT
40°05'
99°45'
North Platte
Kearney
Grand Island
Hastings
Norfolk
Omaha
Council Bluffs
Lincoln
Nebraska City
Falls City
Beatrice
Fairbury
Chanute
Iola
Coffeyville
Independence
Bartlesville
Pawhuska
Ponca City
Enid
Woodward
Guymon
Liberal
Dodge City
Garden City
Hutchinson
Salina
Concordia
Manhattan
Topeka
Kansas City
St. Joseph
Chillicothe
Trenton
Cameron
Maryville
Clarinda
Shenandoah
Red Oak
Atlantic
Harlan
Denison
Storm Lake
Spencer
Sioux City
Sioux Falls
Yankton
Mitchell
Huron
Aberdeen
Watertown
Redfield
Pierre
Chamberlain
Winner
Rapid City
Scottsbluff
Alliance
Chadron
Valentine
Ainsworth
Broken Bow
North Platte
McCook
Hays
Goodland
Colby
Oakley
Russell
Great Bend
Pratt
Hutchinson
Wichita
Winfield
Arkansas City

ain. VFR operations conducted during the hours of arkness will not be flown lower than 800' above the errain. The lower VFR altitude shown on the chart is ie minimum altitude that will be reached on each route egment during daylight hours.

Alternate Entry—Aircraft shall cross the Goodland, Kans VOR at 23,000' MSL; and proceed northeast on the oodland VOR 053° radial maintaining 23,000' MSL ntil 35 NM nrtheast of Goodland VOR, then descend so s to reach 5500' MSL by the Hill City, Kansas VOR 7/49 NM fix; then descend to 3800' MSL direct 7°05'N, 99°45'W, thence via the published route.

Route Width—The route width from 39°31'N, 99°34'W the route exit point is 5 SM on the west and north de of the route centerline and 10 SM on the east and outh side of the route centerline.

Hours of Operation—0000Z to 2359Z Monday through Saturday.

ALABAMA/MISSISSIPPI

COIL SPRING

Revised Effective October 18, 1964

Aircraft shall cross Muscle Shoals, Alabama VOR at 0,000' MSL, or as assigned. Descend via Muscle Shoals OR 115° radial, cross Muscle Shoals VOR 115°/24 NM 12,000' MSL; turn right, descend to cross 34°19'N, °06'W at 8000' MSL, maintain 8000' MSL direct to e route entry point at 34°03'N, 87°33'W, direct 33°-5'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' SL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; escend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to °33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 3°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' SL, direct to cross 31°36'N, 88°55'W at 5000' MSL. n addition to the above, aircraft may climb to 3000' SL after 31°33'N, 87°40'W and maintain 3000' MSL 31°36'N, 88°55'W during the hours 0600Z–1200Z.

Short Look—After passing 31°36'N, 88°55'W aircraft all operate through the bomb run corridor at 5000' SL. In addition, aircraft may operate through the omb run corridor at 3000' MSL during the hours 0600Z–200Z. (The bomb run corridor is 5 SM either side enterline from 31°36'N, 88°55'W to 31°35'N, 89°14'W.) fter exiting the route at 31°35'N, 89°14'W, aircraft all cross 31°36'N, 89°30'W at 5000' MSL; start climb irect to cross 31°37'N, 89°56'W at 14,000' MSL (reorting point), maintain 14,000' MSL direct 31°33'N, 0°25'W; start climb direct 31°32'N, 90°36'W, turn right intercept Jackson, Miss. VORTAC 205° radial 56 NM x (31°42'N, 90°44'W) at or below 23,000' MSL, thence a 205° radial to cross 36 NM fix at FL 250, maintain L 250 or as assigned to Jackson VORTAC.

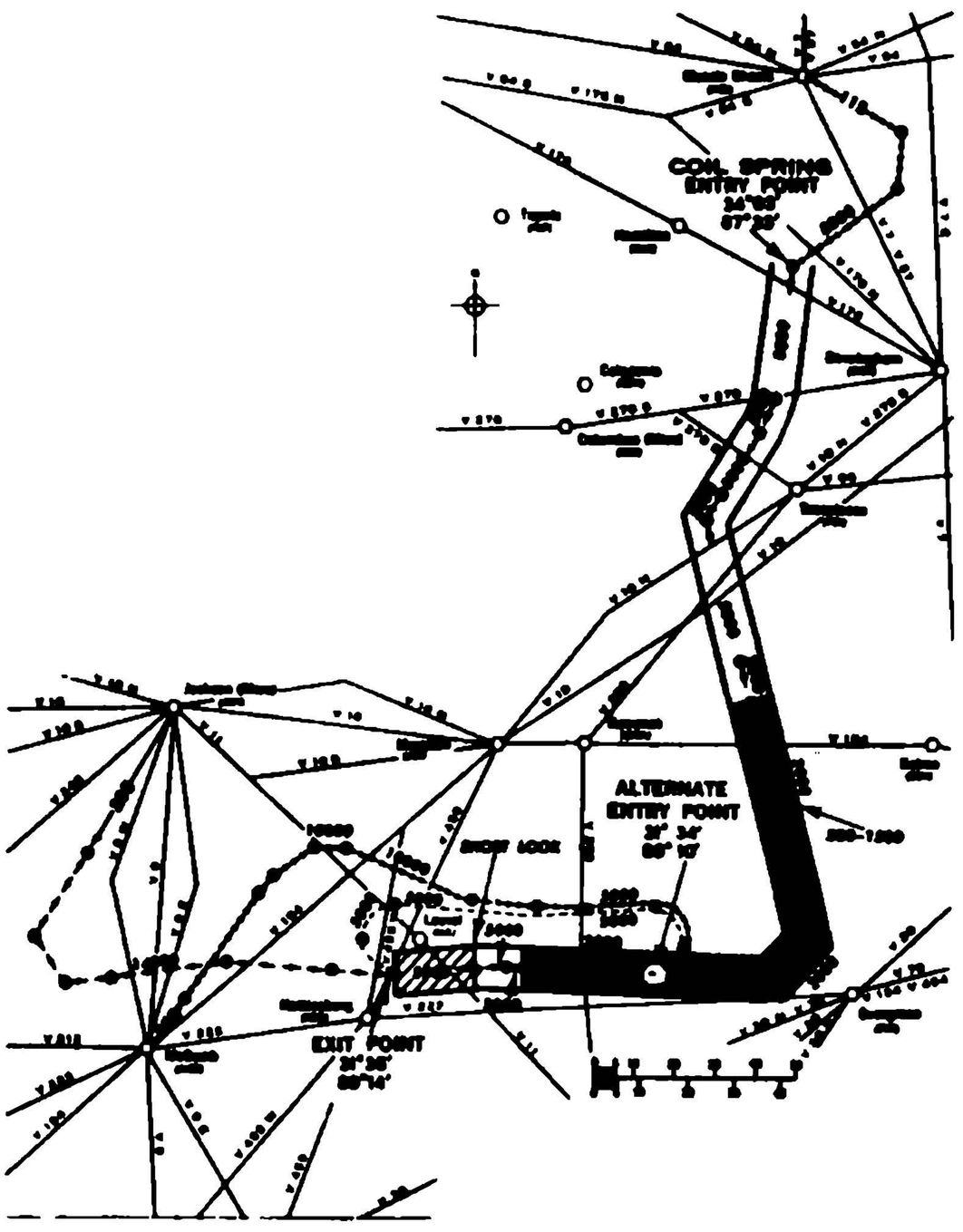
Re-Entry—Aircraft scheduled to execute an additional omb run shall, after exiting the route at 31°35'N, 9°14'W, turn right, cross 31°42'N, 89°22'W at 5000' SL, maintain 5000' MSL, turn right to 31°49'N, 89°-4'W, direct 31°48'N, 88°27'W; direct 31°48'N, 88°10'W; urn right, cross 31°40'N, 88°03'W at 3000' MSL; continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence a published route.

VFR and Contour—If the encountered weather conditions long the route are equal to or better than ceiling 3000', isibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the hart between the following points: From 32°31'N, 87°-5'W to 31°36'N, 88°42'W. During daylight hours, some FR operations will be flown 500' above the immediate errain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.

Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18'15"N, 90°15'29"W) at 23,000' MSL, or as assigned; maintain 23,000' MSL or as assigned via the McComb VOR 028° radial to 13 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000' MSL; cross 45 NM fix at 14,000' MSL; turn right, cross 32°01'N, 89°35'W at 10,000' MSL, maintain 10,000' MSL, turn right, 32°01'N, 89°27'W, direct 31°49'N, 88°55'W; descend direct, cross 31°48'N, 88°39'W at 6000' MSL; direct, cross 31°48'N, 88°27'W at 5000' MSL, maintain 5000' MSL direct 31°48'N, 88°10'W; turn right cross 31°40'N, 88°03'W at 3000' MSL continue turn, cross 31°34'N, 88°10'W at 2000' MSL; thence via the published route.

Route Width—The entire route is reduced to 5 SM either side of route centerline.

Hours of Operation—24 hours per day, 7 days a week.



DUCK FLAT

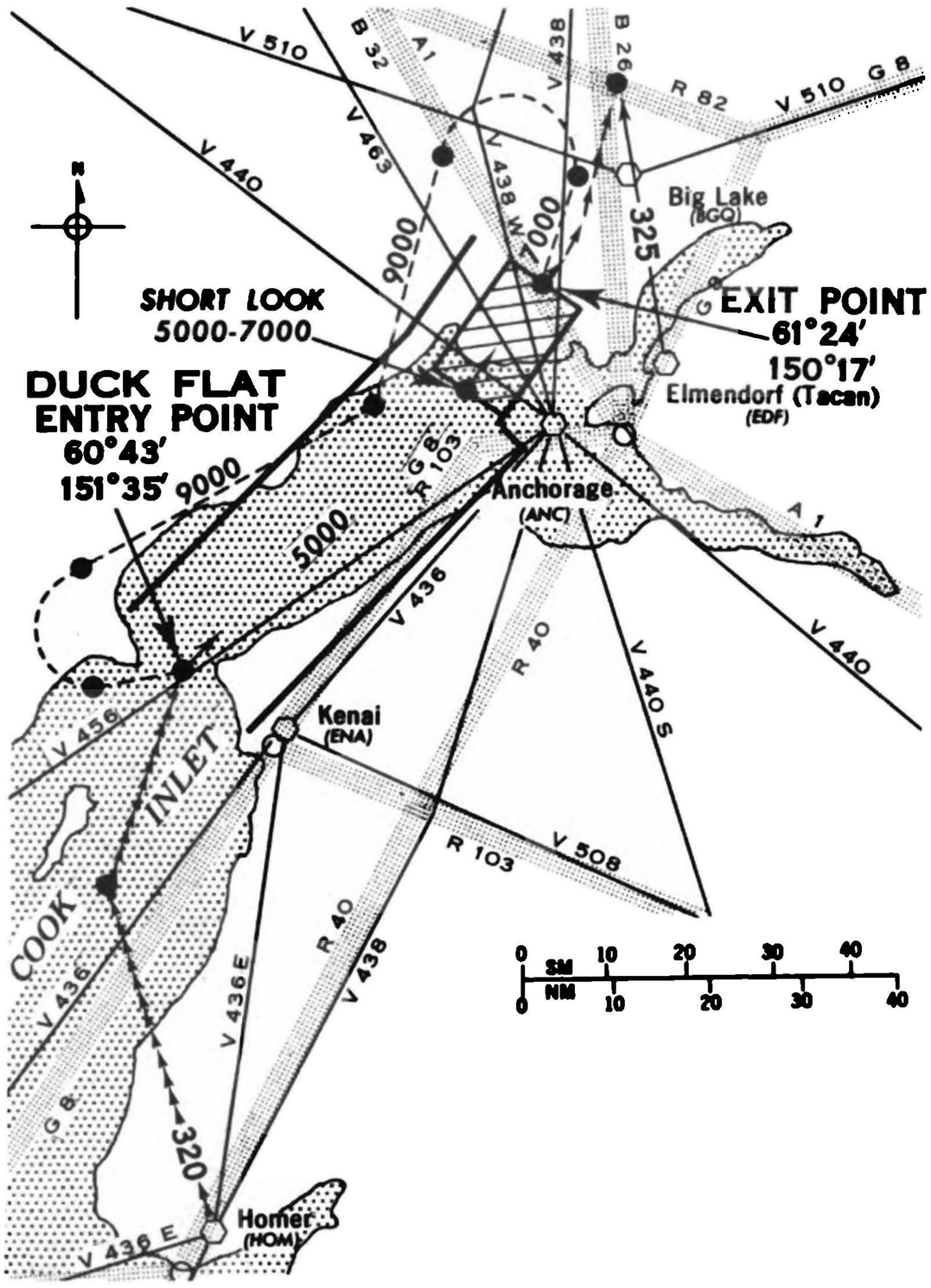
ALASKA

Effective June 16, 1963

Aircraft shall cross the Homer, Alaska VOR (reporting point) at FL 250 or as assigned by ARTCC, descend via the 320° radial of the Homer VOR to 60°20'N, 151°50'W, continue descent to cross the route entry point at 60°-43'N, 151°35'W at 5000' MSL, maintain 5000' MSL to 61°13', 150°34'W.

Short Look—After passing 61°13'N, 150°34'W aircraft shall maintain between 5000' MSL and 7000' MSL through the bomb run corridor (5 smi either side center-

line from 61°13′N, 150°34′W to 61°24′N, 150°17′W). After passing 61°24′N, 150°17′W (reporting point), the route exit point, aircraft shall climb to or maintain 7000′ MSL direct to the Elmendorf TACAN 325° radial 30 NM fix (Willow Intersection).



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 61°24′N, 150°17′W, maintain 7000′ MSL to 61°35′N, 150°08′W, then turn left climbing to 9000′ MSL direct to 61°38′N, 150°38′W, then 9000′ MSL to 61°13′N, 150°54′W, then 9000′ MSL direct 60°53′N, 151°57′W, then a left descending turn to cross 60°41′N, 151°54′W at 7000′ MSL or above, direct to reentry the Duck Flat route at 60°43′N, 151°35′W at 5000′ MSL.

Route Width—The route width is reduced to 5 smi southeast of centerline from 61°13′N, 150°34′W to 61°24′N, 150°17′W.

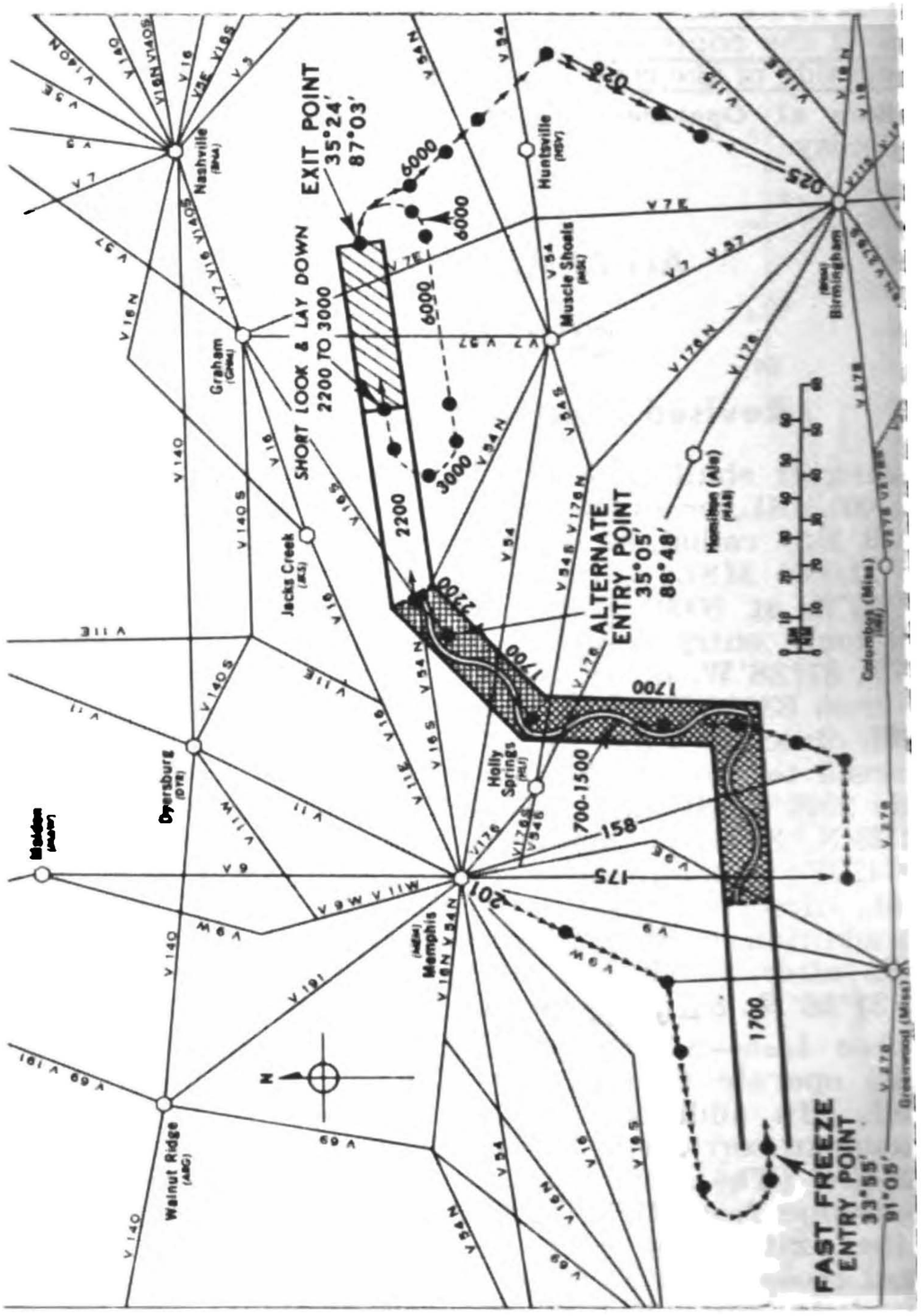
Hours of Operation—2000Z to 2400Z Monday through Friday.

ALABAMA/MISSISSIPPI/TENNESSEE

FAST FREEZE

Effective January 4, 1965 through March 27, 1965

Aircraft shall cross the Memphis, Tennessee, VORTAC at FL 250 or as assigned by ARTC; then maintain FL 250 or assigned altitude via the 201° radial of the Memphis VORTAC to the 26 NM DME fix (34°39′N, 90°-08′W); then descend direct so as to cross 34°17′ 90°21′W (201/50 NM DME fix of Memphis VORTA at FL 200; then descend direct so as to cross 34°14′ 90°40′W at 16,000′ MSL; then descend direct to 34°08′ 91°16′W; then turn left descending to 33°54′N, 91°13′W then continue descend direct so as to cross 33°55′N, 9 05′W at 1700′ MSL (low level entry point); then 1700′ MSL direct to 34°03′N, 89°12′W; then at 170 MSL direct to 34°47′N, 89°11′W; then at 1700′ MS direct to 35°05′N, 88°48′W; then at 2200′ MSL direct 35°13′N, 88°39′W; then at 2200′ MSL direct to 35°19′ 87°47′W.



Short Look and Lay Down—After passing 35°19′N, 87 47′W aircraft shall maintain between 2200′ MSL a 3000′ MSL through the bomb run corridor (5 statu miles either side of centerline from 35°19′N, 87°47′ to 35°24′N, 87°03′W). After exiting the route at 35 24′N, 87°03′W, aircraft shall turn right climbing so to cross 35°14′N, 86°47′W at 6000′ MSL; then at 600 MSL to 35°05′N, 86°38′W; then climb direct so as cross 34°58′N, 86°30′W at 10,000′ MSL or above; th climb direct so as to cross 34°43′N, 86°13′W at (026 NM DME fix of Birmingham, Alabama, VORTAC) 15,000′ MSL; then climb direct so as to cross 34°18′ 86°30′W (025/43 NM DME fix of Birmingham, Alabam VORTAC) at FL 220 or above; then climb direct so to cross 34°09′N, 86°36′W (025/33 NM DME fix Birmingham, Alabama, VORTAC) at FL 240.

Re-Entry—After completing the initial bomb run, ai craft that are scheduled to execute an additional bom run shall, after passing 35°24′N, 87°03′W, turn rig and climb so as to cross 35°13′N, 86°55′W at 6000′ MSL

en continue turn at 6000′ MSL to 35°10′N, 87°01′W; en at 6000′ MSL direct to 35°05′N, 87°46′W; then scend direct so as to cross 35°04′N, 87°56′W at 3000′ SL; then at 3000′ MSL turn right to 35°10′N, 88°-′W; then turn right descending so as to cross 35°17′-′N, 87°59′W at 2200′ MSL; then at 2200′ MSL direct 35°19′N, 87°47′W; thence via the published route.

VFR and Contour—If the encountered weather conditions ng the route are equal to or better than ceiling 3000′, sibility 5 miles, the pilot may descend VFR and oper-e between the VFR altitudes indicated on the chart tween the following points: From 34°00′N, 90°00′W 35°13′N, 88°39′W. During daylight hours, some VFR erations will be flown 500 feet above the immediate rain. VFR operations conducted during the hours of rkness will not be flown lower than 800 feet above the rain. The lower VFR altitude shown on the chart is e minimum altitude that will be reached on each route gment during daylight hours.

Alternate Entry—Aircraft shall cross the 175/83 NM ME fix of the Memphis, Tennessee, VORTAC (33°39′N, °53′W) at FL 200 or as assiged by ARTC; then de-nd direct to 33°39′N, 89°22′W (158/86 NM DME fix the Memphis VORTAC); then continue descent direct as to cross 33°50′N, 89°18′W at 10,000′ MSL or below; en descend direct so as to cross 34°03′N, 89°12′W at 00′ MSL; then descend direct so as to cross 34°19′N, °12′W at 1700′ MSL; then at 1700′ MSL direct to °47′N, 89°11′W; then at 1700′ MSL direct 35°05′N, °48′W; thence via the published route.

Route Width—The route width is reduced to 5 statute les on either side of centerline from 33°55′N, 91°05′W 35°24′N, 87°03′W.

Hours of Operation—24 hours daily, 7 days per week.

IOWA/MISSOURI

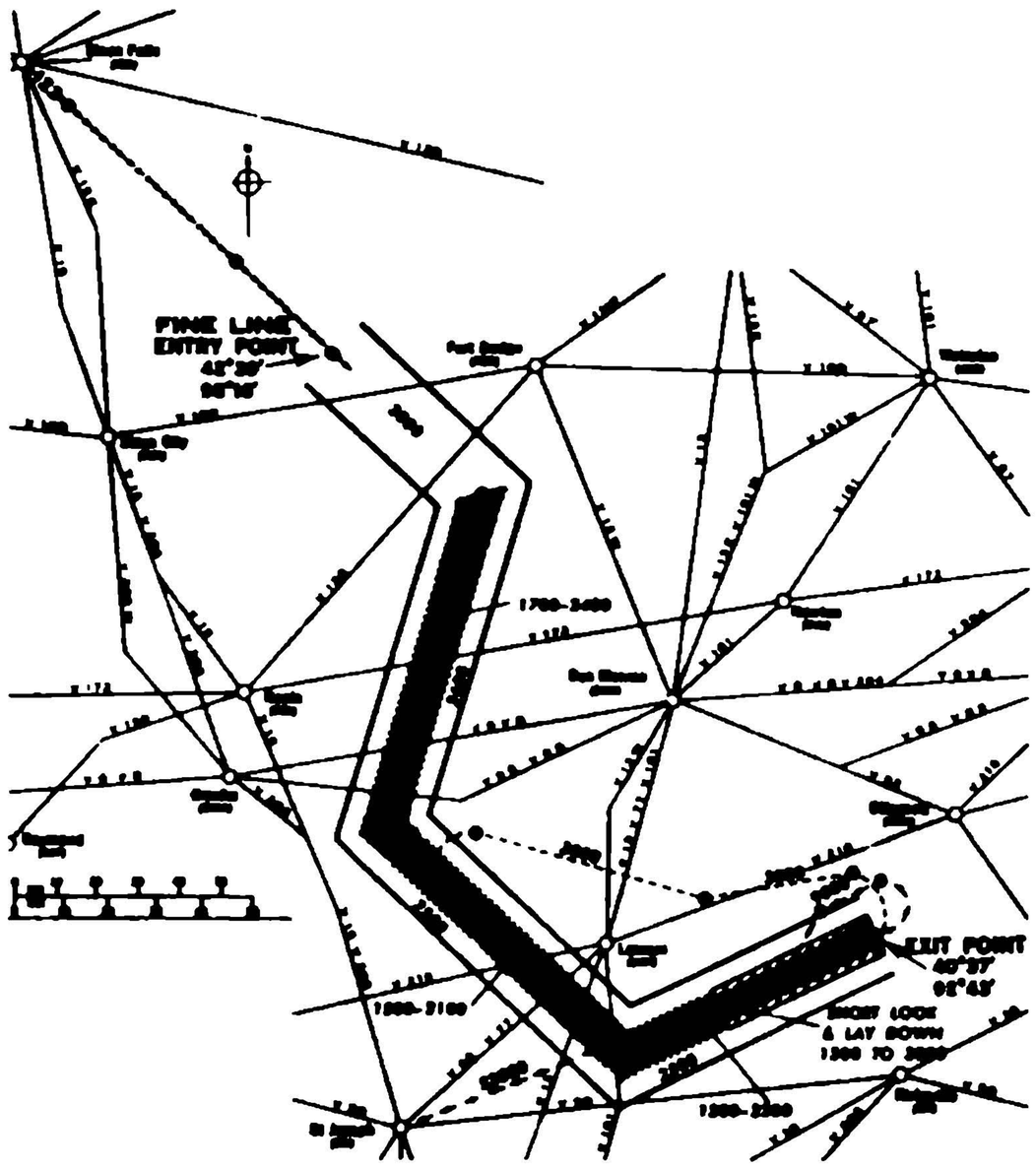
FINE LINE

Effective August 31 thru February 19, 1965

Aircraft shall cross the Sioux Falls, South Dakota ORTAC at 23,000′ MSL or as assigned by ARTCC and oceed via the 123° radial maintaining 23,000′ MSL or signed altitude until 13 NM southeast; then descend the 123° radial of the Sioux Falls VORTAC so as cross 42°58′N, 95°44′W at 11,000′ MSL or below; then scend direct so as to cross the route entry point 42°-′N, 95°16′W at 2800′ MSL; then at 2800′ MSL direct 42°10′N, 94°33′W; then at 2600′ MSL direct to 41°-′N, 95°01′W; then at 2500′ MSL direct to 40°12′N, °53′W; then at 2500′ MSL direct to 40°22′N, 93°27′W.

Short Look and Lay Down—After passing 40°22′N, 93°-′W, aircraft shall maintain between 1300′ MSL and 00′ MSL through the bomb run corridor (5 SM either le of centerline from 40°22′N, 93°27′W to 40°37′N, °43′W). The minimum IFR altitude through the cor-lor is 2500′ MSL. After exiting the route at 40°37′N, °43′W, aircraft shall turn left climbing so as to cross °48′N, 92°41′W at 9000′ MSL; then continue left turn aintaining 9000′ MSL to 40°42′N, 92°58′W; then climb as to cross 40°30′N, 93°08′W at 14,000′ MSL or below; en continue climb direct to 40°28′N, 93°09′W; then mb direct so as to cross 40°19′N, 93°42′W at 23,000′ SL; then at 23,000′ MSL direct to the St. Joseph, issouri VORTAC.

Re-Entry—After completing the initial bomb run, air-aft that are scheduled to execute an additional bomb n shall, after passing 40°37′N, 92°43′W, turn left and mb to or maintain 3000′ MSL to 40°50′N, 92°49′W; en at 3000′ MSL direct to 40°45′N, 93°30′W; then at 3000′ MSL direct to 40°59′N, 94°35′W; then turn left descending to intercept the Oil Burner Route at 40°48′N, 94°44′W; thence via the published route.



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°10′N, 94°33′W to 40°37′N, 92°43′W. During daylight hours, some VFR operations will be flown 500 feet above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800 feet above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Hours of Operation—24 hours daily 7 days per week.

FLINT ROCK

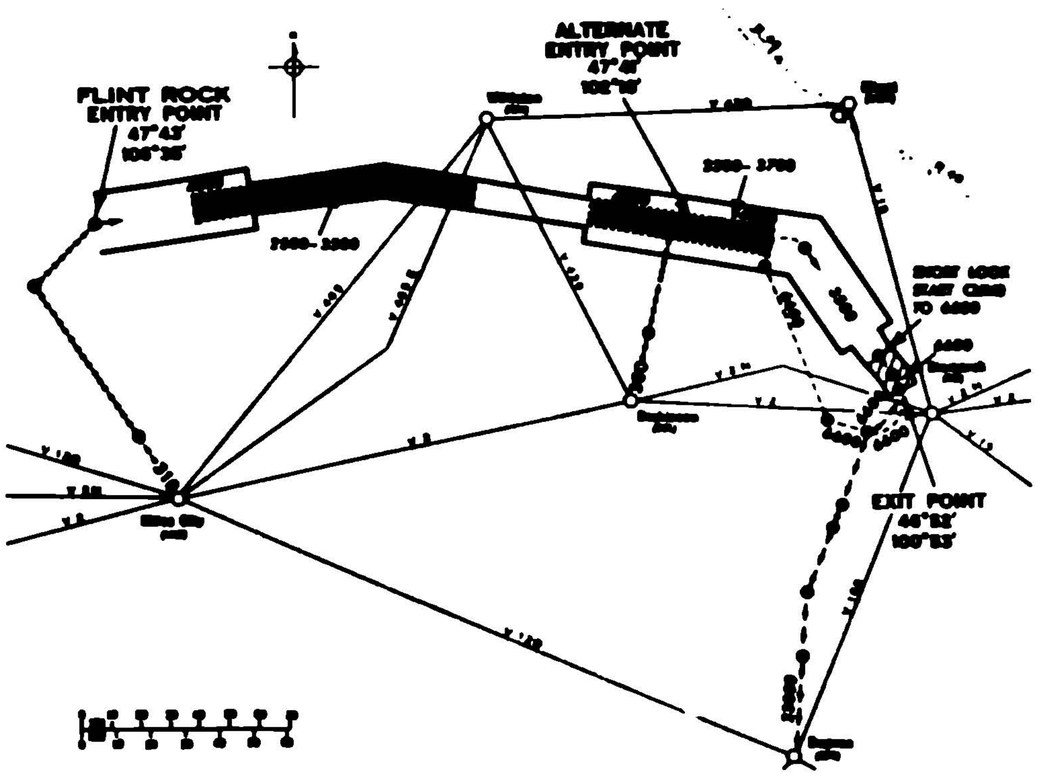
MONTANA/NORTH DAKOTA

Revised Effective June 14, 1964

Aircraft shall cross the Miles City, Mont. VORTAC (reporting point) at 23,000′ MSL, or as assigned by ARTCC, and proceed via the 310° radial, maintaining 23,000′ or as assigned, to 46°40′N, 106°14′W; then descend to cross 47°24′N, 107°00′W at or above 6000′ MSL; then continue descent so as to cross the route entry point, 47°43′N, 106°35′W, at 4000′ MSL; then at 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MSL direct 47°35′N, 101°31′W; then descend to 3500′ MSL direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 5 SM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to 23,000′ MSL direct to 45°53′N, 101°35′W; direct to Dupree

VORTAC, climbing so as to cross 46°19′N, 101°19′W at or above 11,000′ MSL, crossing 46°13′N, 101°23′W at or below 19,000′ MSL; crossing 45°53′N, 101°35′W at 21,000′ MSL, and to reach 23,000′ MSL at a point 30 nautical miles northeast of the Dupree VORTAC.



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52′N, 100°53′W maintain 6600′ MSL direct 46°39′N, 101°07′W; then at 6600′ MSL make a right turn direct to 46°43′N, 101°24′W; then at 6600′ MSL direct 47°30′N, 101°49′W; then a right decending turn so as to reenter the route at 47°-35′N, 101°31′W at 3500′ MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 105°53′W to 47°53′N, 103°53′W and from 47°47′N, 103°03′W to 47°37′N, 101°45′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000′ MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000′ MSL, or assigned flight level/altitude, direct to a point 20 NM north of the Dickinson VORTAC; then descend so as to cross 47°42′-30′′N, 102°27′W at 6000′ MSL; then a descending right turn so as to cross 47°41′N, 102°18′W at 4000′ MSL, thence via the published route.

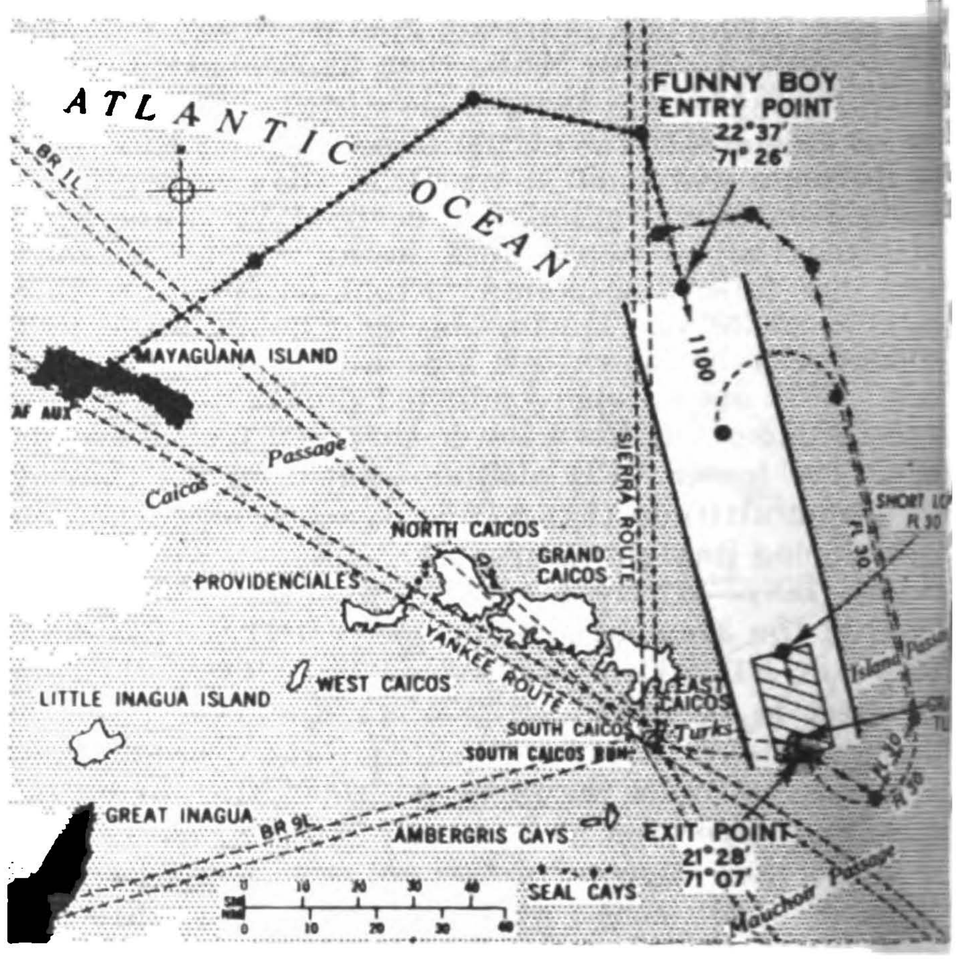
Route Width—The route width is reduced to 5 SM on either side of centerline from 47°50′N, 105°30′W to 47°-47′N, 103°03′W and from 47°07′N, 101°06′W to 46°52′N, 100°53′W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY

Revised Effective December 1, 1963

Aircraft shall cross 22°23′N, 73°02′W (Mayaguana AFB) at FL 270 or as assigned; maintain FL 270 or as assigned 22°41′N, 72°35′W (reporting point); start descent, cross 23°05′N, 72°00′W at FL 150; right turn, cross 23°00′N, 71°33′W at FL 90 or below; cross 22°37′ 71°26′W at 1100′ MSL; the route entry point, maint 1100′ MSL direct 21°43′N, 71°11′W.



Short Look—After passing 21°43′N, 71°11′W aircr shall climb to FL 30 and maintain FL 30 through t bomb run corridor (5 SM either side of centerline fr 21°43′N, 71°11′W to 21°28′N, 71°07′W). After exiti the low level route at 21°28′N, 71°07′W, maintain FL direct 21°21′N, 70°54′W; direct 21°33′N, 70°47′W; st climb cross 22°40′N, 71°06′W at FL 250 or above; l turn to 22°48′N, 71°16′W; cross 22°45′N, 71°30′W FL 290 or as assigned.

Re-Entry—After completing the initial bomb run, a craft scheduled to execute an additional bomb run sh after exiting the low level route at 21°28′N, 71°07′ maintain FL 30; direct 21°21′N, 70°54′W; direct 2 33′N, 70°47′W; direct 22°21′N, 71°01′W; left turn scend to cross 22°16′N, 71°20′W at 1100′ MSL; the via "Funny Boy" route.

Hours of Operation—0000Z to 2359Z Monday throu Saturday.

MICHIGAN/ONTARIO, CAN.

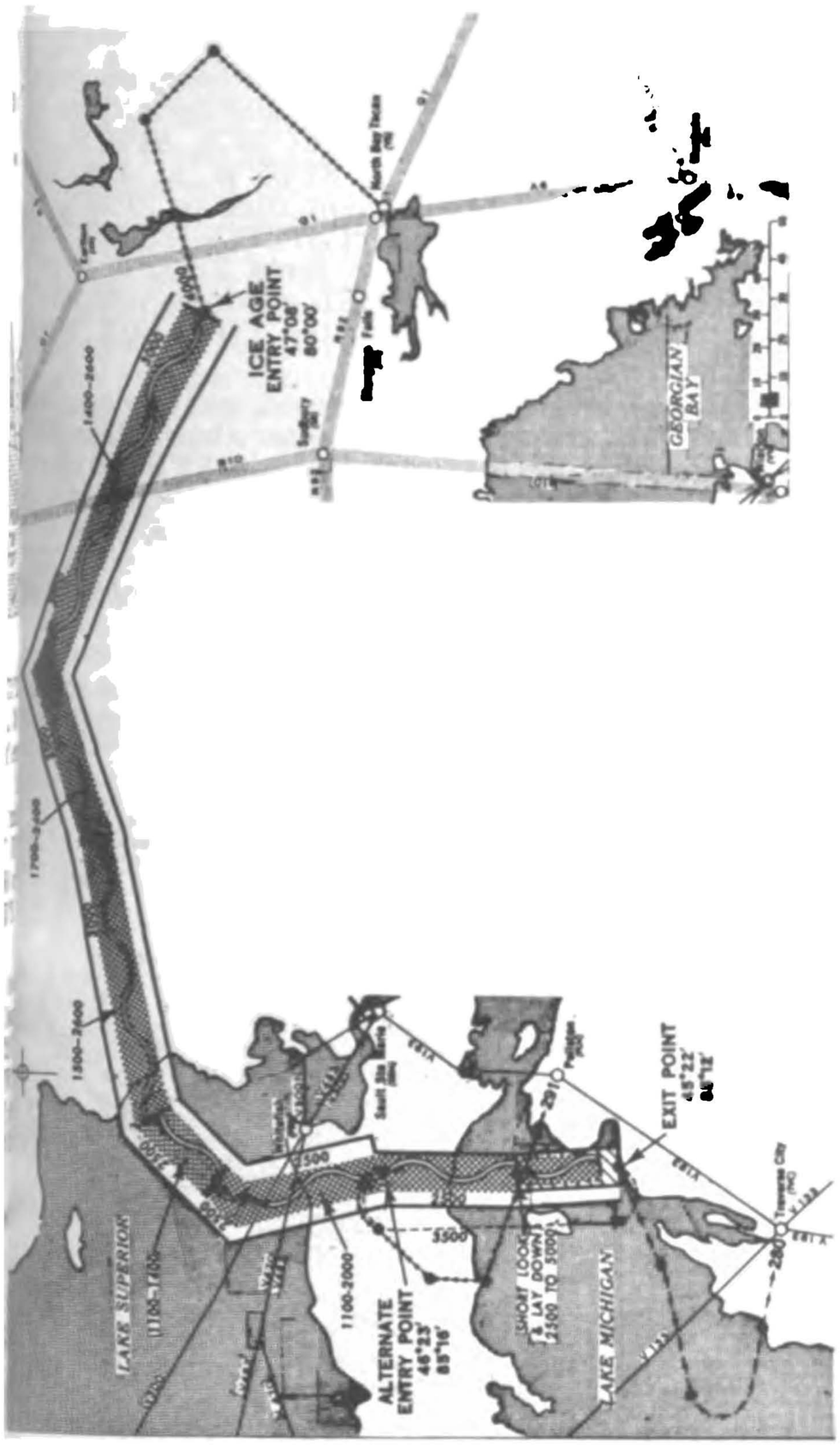
ICE AGE

Revised Effective September 6, 1964

Start descent over North Bay Ont. TACAN from 250 or as otherwise assigned to 17,000′ MSL direct 4 04′N, 78°25′W, descend to 10,000′ MSL direct to 47°2 78°49′W, descend to 4000′ MSL direct to 47°15′N, 7 25′W, maintain 4000′ MSL direct to low level entry po at 47°08′N, 80°00′W (aircraft shall maintain an altitu below 3500′ AGL on the low level route while in Ca dian airspace), descend so as to cross 47°22′N, 80°35 at 3000′ MSL, then maintain 3000′ MSL direct 47°58 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′ then at 3000′ MSL direct 47°23′N, 85°00′W, then scend direct 47°06′N, 85°22′W at 2500′ MSL (termi tion of Canadian portion of route). Aircraft shall en the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, dir 47°00′N, 85°30′W at 2500′ MSL, direct 46°28′N, 85°16′ at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.

Short Look and Lay Down—After passing 45°48′N, 8 15′W aircraft shall maintain between 2500′ MSL a

)0' MSL through the bomb run corridor (5 SM either de of centerline from 45°48'N, 85°15'W to 45°22'N, 5°12'W. The minimum IFR altitude through the bomb n corridor is 2500' MSL); after passing 45°22'N, 85°-5'W then turn right climbing so as to cross 45°10'N, 5°47'W at 10,000' MSL; then climb direct so as to cross 5°01'N, 86°33'W at 12,000' MSL. Turn left to intercept 0° radial of the Traverse City VOR climbing so as to ss Traverse City VOR 280/25 at 21,000' MSL. Conue climbing via the Traverse City VOR 280° radial so to cross the Traverse City VOR at FL 250.



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22'N, 85°12'W turn right climbing so as to cross 45°21'N, 85°32'W at 3,500' MSL, then at 3,500' MSL direct to 46°23'N, 85°-32'W; then turn right descending so as to cross 46°23'N, 85°16'W at 2500' MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°08'N, 80°00'W to 45°27'N, 84°13'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000' MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000' MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55'N, 85°55'W at 8000' MSL; then continuing descent turn right direct so as to cross 46°00'30''N, 85°55'W at or below 4000' MSL; then continue descent so as to cross 46°23'N, 85°37'W at 2500' MSL, then at 2500' MSL turn right to 46°23'N, 85°16'W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 5 statute miles east of centerline from 46°23'N, 85°16'W to 45°-22'N, 85°12'W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

LITTLE SATIN

Revised Effective May 3, 1964

Aircraft shall cross 41°40'N, 115°49'W (Elko VOR-TAC 340°/55 NM DME fix) (reporting point) at 23,000' MSL or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59'N, 116°30'W (Battle Mountain VOR 019°/31) at 14,000' MSL, then 14,000' MSL direct 40°10'N, 116°17'W; then descend to 13,000' MSL direct 39°42'N, 116°10'W, then 13,000' MSL direct 38°57'N, 116°26'W, then 13,000' MSL direct 38°34'N, 116°40'W, then 13,000' MSL direct 38°31'N, 118°12'W.

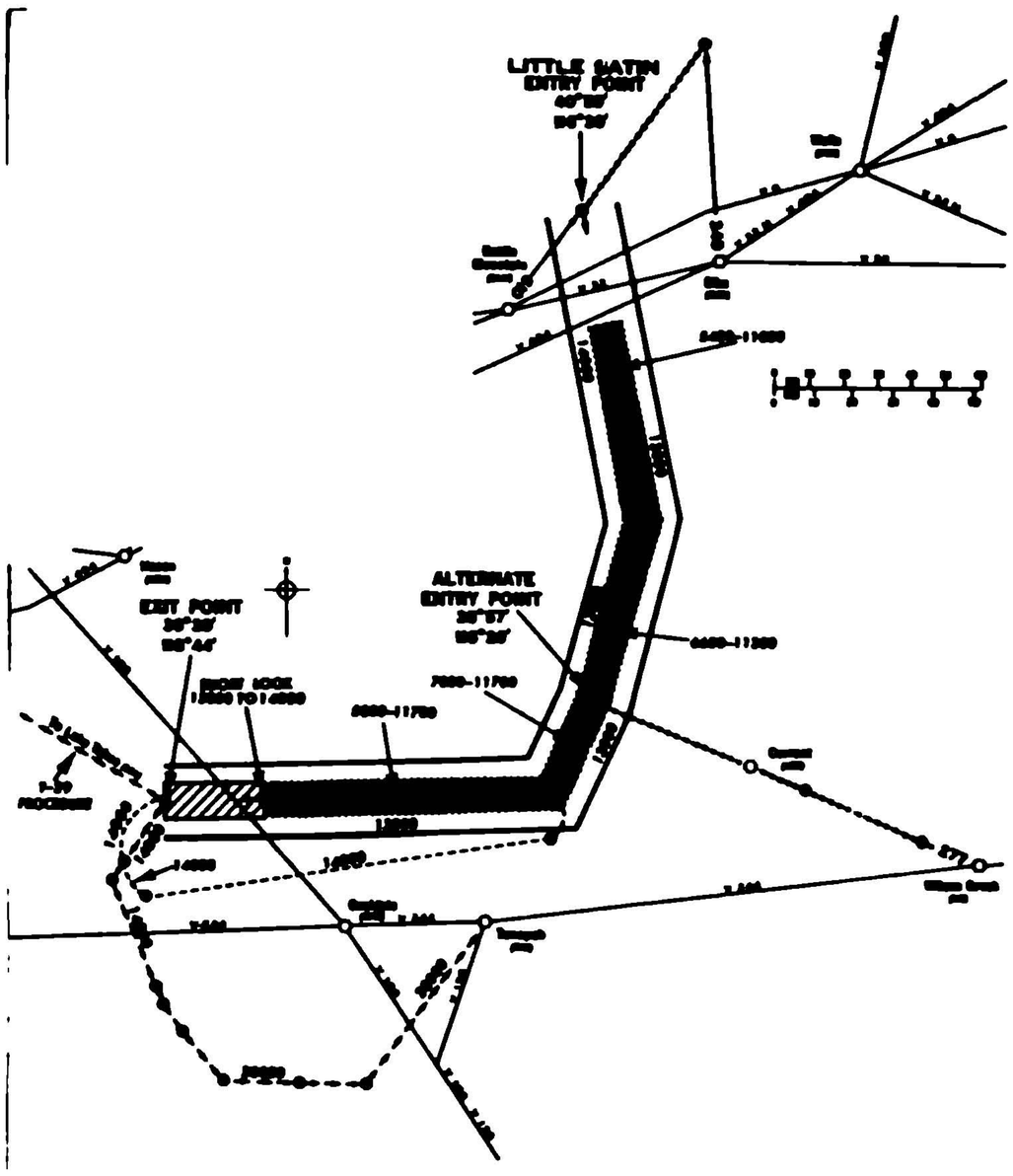
Short Look—After passing 38°31'N, 118°12'W aircraft shall operate between a maximum altitude of 14,000' MSL and a minimum of 13,000' MSL thru the bomb run corridor (5 SM either side of centerline from 38°31'N, 118°12' W to 38°30' N, 118°44' W). After exiting the route at 38°30'N, 118°44'W aircraft shall maintain 14,000' MSL direct 38°10'N, 119°00'W, then 14,000' MSL direct 37°43'N, 118°46'W (reporting point "Little Satin 2"); then climb direct to cross 37°40'N, 118°43'W at or above 14,300' MSL and 37°33'N, 118°37'W at or above 15,000' MSL; then climb to 20,000' MSL direct 37°21'N, 118°25'W, then 20,000' MSL direct to 37°21'N, 118°-00'W (reporting point "Little Satin 3"); then climb direct to cross 37°21'N, 117°40'W at 23,000' MSL, then 23,000' MSL direct to Tonopah, Nev. VOR.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30'N, 118°44'W, maintain 14,000' MSL direct 38°15'N, 118°57'W, then 14,000' direct 38°06'N, 118°50'W (reporting point "Little Satin 1"), then 14,000' MSL direct 38°23'N, 116°40'W; then descend to 13,000' MSL direct to re-enter the route at 38°34'N, 116°40'W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 40°30'N, 116°22'W to 38°31'N, 118°12'W. During daylight hours some VFR operations will be flown 800' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nev. VOR (reporting point) at 23,000' MSL or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21'N, 114°41'W);

then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.



T–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15′N, 114°23′W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30′N, 118°44′W exit point of the bomb run corridor; then climb to 14,000′ MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11′ N, 120°16′W).

Hours of Operation—24 hours daily, 7 days a week.

KENTUCKY/TENNESSEE

ORANGE TREE

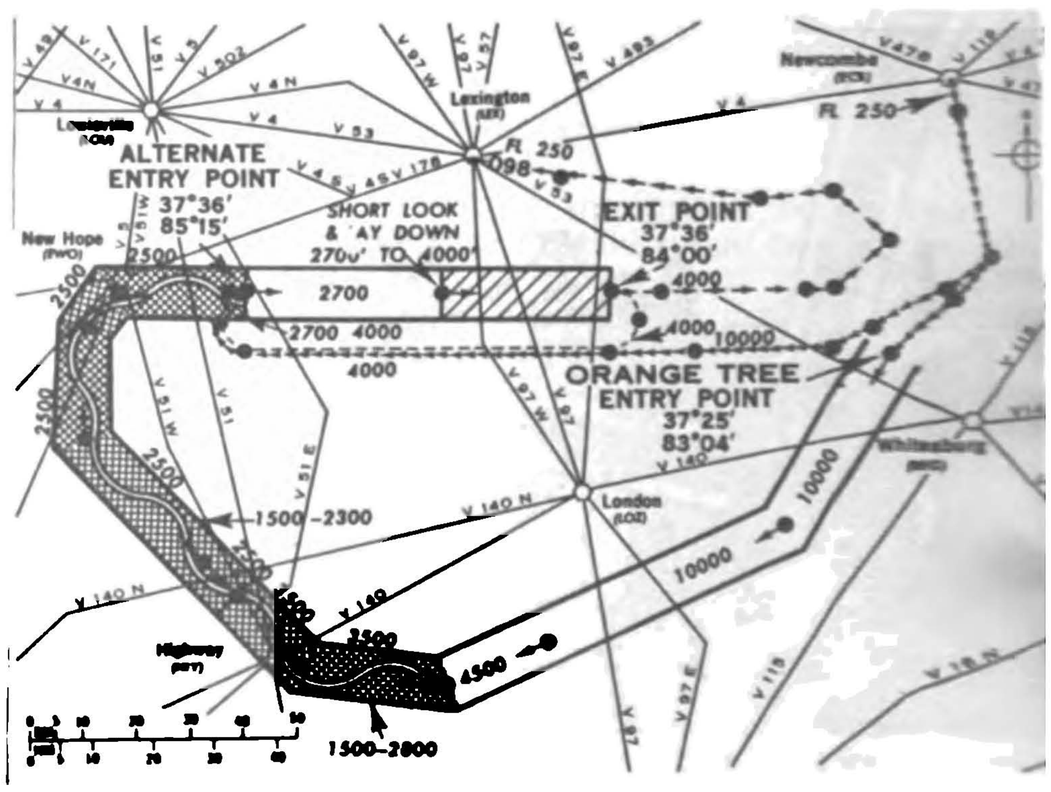
Revised Effective November 1, 1964

Aircraft shall cross the Newcomb, Kentucky VOR at FL 250; maintain FL 250 direct 38°05′N, 82°53′W; then start descend so as to cross 37°41′N, 82°48′W at 17,000′ MSL; cross 37°34′N, 82°55′W at 14,000′ MSL; then continue descent so as to cross the route entry point at 37°25′N, 83°04′W at 10,000′ MSL, then at 10,000′ MSL direct 36°57′N, 83°25′W, then at 10,000′ MSL direct 36°38′N, 84°13′W; then start descent so as to cross 36°-31′N, 84°33′W at 4500′ MSL; then descend so as to cross 36°31′N, 84°36′W at 3500′ MSL, then at 3500′ MSL direct 36°34′N, 85°03′W, then at 3500′ MSL direct 36°46′N, 85°16′W; then descend so as to cross 36°51′N, 85°22′W at 2500′ MSL, then at 2500′ MSL direct 37°11′N, 85°-47′W, then at 2500′ MSL direct 37°30′N, 85°46′W, then at 2500′ MSL turn right to 37°35′N, 85°42′W, then at 2500′ MSL direct 37°36′N, 85°17′W; then climb so as to cross 37°36′N, 85°15′W at 2700′ MSL, then at 2700′ MSL direct to 37°36′N, 84°35′W.

Short Look and Lay Down—After passing 37°36′N, 84°-35′W aircraft shall maintain between 2700′ MSL and 4000′ MSL through the bomb run corridor (5 SM eith side of centerline from 37°36′N, 84°35′W to 37°36′ 84°00′W; the minimum IFR altitude thru the bomb r corridor is 2700′ MSL). After exiting the route at 37 36′N, 84°00′W aircraft shall cross 37°36′N, 83°50′W 4000′ MSL; then at 4000′ MSL direct 37°36′N, 83°20′W then start climb direct 37°36′N, 83°15′W; cross 37°44′ 83°05′W at or below 9000′ MSL; continue climb dire 37°52′N, 83°15′W; then climbing direct so as to cro 37°51′N, 83°30′W at or below 17,000′ MSL; then via t Lexington VORTAC 098° radial climbing so as to cro 37°56′N, 84°11′W (Lexington VORTAC 098/14) at F 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run aircra that are scheduled to execute an additional bomb r shall, after exiting the route at 37°36′N, 84°00′W, tu right so as to cross 37°31′N, 83°55′W at 4000′ MS then at 4000′ MSL continue right turn to 37°26′N, 84 00′W, then at 4000′ MSL direct 37°26′N, 85°15′W; th turn right descending so as to cross 37°31′N, 85°20′ at 2700′ MSL, then at 2700′ MSL continue right turn 37°36′N, 85°15′W, thence via the "ORANGE TRE route.

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and opera between the VFR altitudes indicated on the chart b tween the following points: From 36°31′N, 84°33′W 37°36′N, 85°15′W. During daylight hours some VF operations will be flown 500′ above the immediate te rain. VFR operations conducted during the hours darkness will not be flown lower than 800′ above t terrain. The lower VFR altitude shown on the chart the minimum altitude that will be reached on each rou segment during daylight hours.



Alternate Entry—Aircraft shall cross the Newcomb, K VOR at FL 250, then at FL 250 direct 38°05′N, 82°53′W then start descent so as to cross 37°41′N, 82°48′W 17,000′ MSL; cross 37°35′N, 82°56′W at 14,000′ MSL cross 37°29′N, 83°08′W at 10,000′ MSL; then at 10,00 MSL direct 37°26′N, 83°15′W; direct 37°26′N, 83°42′W then start descent so as to cross 37°26′N, 84°00′W 4000′ MSL; then at 4000′ MSL direct to 37°26′N, 85 15′W; then turn right descending so as to cross 37°31′ 85°20′W at 2700′ MSL; then at 2700′ MSL direct 37°36′N, 85°15′W; thence via the established route.

Route Width—The route width is reduced to 5 statu miles on either side of centerline throughout the enti route.

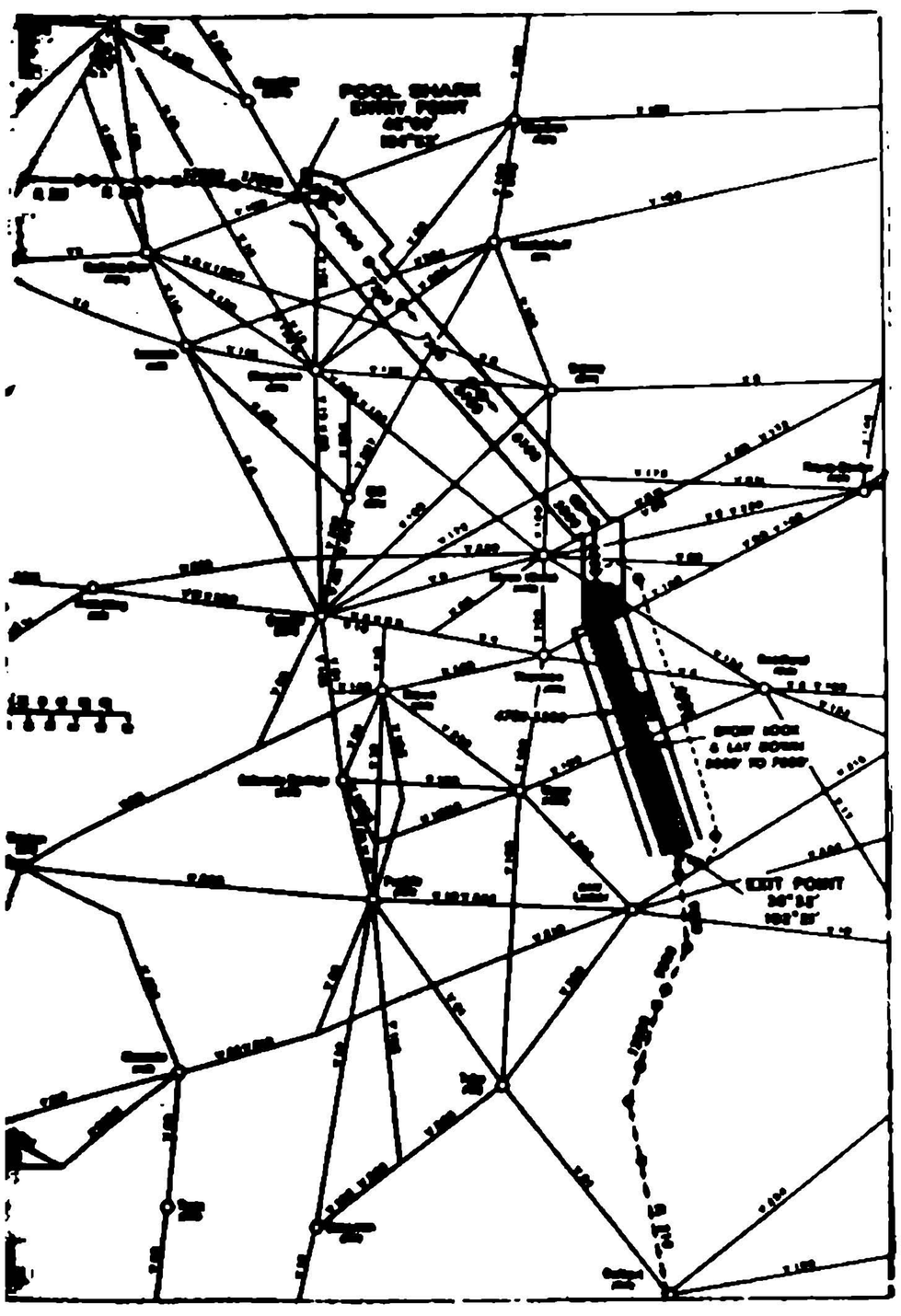
Hours of Operation—0000Z to 2400Z, 7 days weekly.

COLORADO/NEBRASKA/WYOMING

POOL SHARK

Effective January 4, 1965 through June 26, 1965

Aircraft shall cross 42°14'N, 107°07'W (Casper, yoming, VORTAC 201/63) at FL 220; then direct '14'N, 106°35'W; then descend direct to cross 42°14'N, 6°26'W at FL 200; then maintain FL 200 direct 42°-'N, 105°59'W; then descend direct to cross 42°14'N, 5°46'W at 17,000' MSL; then maintain 17,000' MSL ect 42°13'N, 105°20'W, then maintain 17,000' MSL ect to the route entry point at 42°09'N, 104°53'W, n descend direct to cross 42°07'N, 104°42'W at 16,000' SL; then descend direct to cross 41°47'N, 104°22'W at 0' MSL; then descend direct to cross 41°33'N, 104°-W at 7300' MSL; then direct 41°07'N, 103°39'W; n descend direct to cross 41°03'N, 103°35'W at 6100' SL; then 6100' MSL direct to 40°27'N, 102°57'W then cend direct so as to cross 40°25'N, 102°55'W at 5800' SL then at 5800' MSL direct to 40°20'N, 102°49'W; n 5800' MSL direct 39°47'N, 102°49'W; then 5800' SL direct 39°05'N, 102°33'W.



Short Look and Lay Down—After passing 39°05'N, 102°-W, aircraft shall maintain between 5800' MSL and 0' MSL through the bomb run corridor (5 SM either e of centerline from 39°05'N, 102°33'W to 38°32'N, 2°21'W). After exiting the route at 38°32'N, 102°-W; aircraft shall climb direct to cross 38°24'N, 102°-W at 9000' MSL; then maintain 9000' MSL direct 59'N, 102°18'W; then 9000' MSL direct 37°45'N, 2°27'W; then climb direct to cross 37°40'N, 102°31'W at 12,000' MSL; then 12,000' MSL direct 37°20'N, 102°-39'W; then climb direct to cross 37°09'N, 102°44'W at or above 16,000' MSL; then climb direct to cross 36°-49'N, 102°40'W at FL 210; then maintain FL 210 direct to Dalhart, Texas, VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°32'N, 102°21'W, turn left to cross 38°35'N, 102°04'W at 6000' MSL; then 6000' MSL direct to 40°00'N, 102°31'W; then turn left to cross 40°00'N, 102°49'W at 5800' MSL, thence via the published route.

Alternate Entry—None.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart bewteen the following points 40°00'N, 102°49'W to 38°-32'N, 102°21'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Route Width—The route width is reduced to 5 SM on the NE side of the centerline from 41°47'N, 104°22'W to 40°20'N, 102°49'W, and to 5 SM on the west side of centerline from 40°20'N, 102°49'W to 39°47'N, 102°49'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE

Revised Effective July 12, 1964

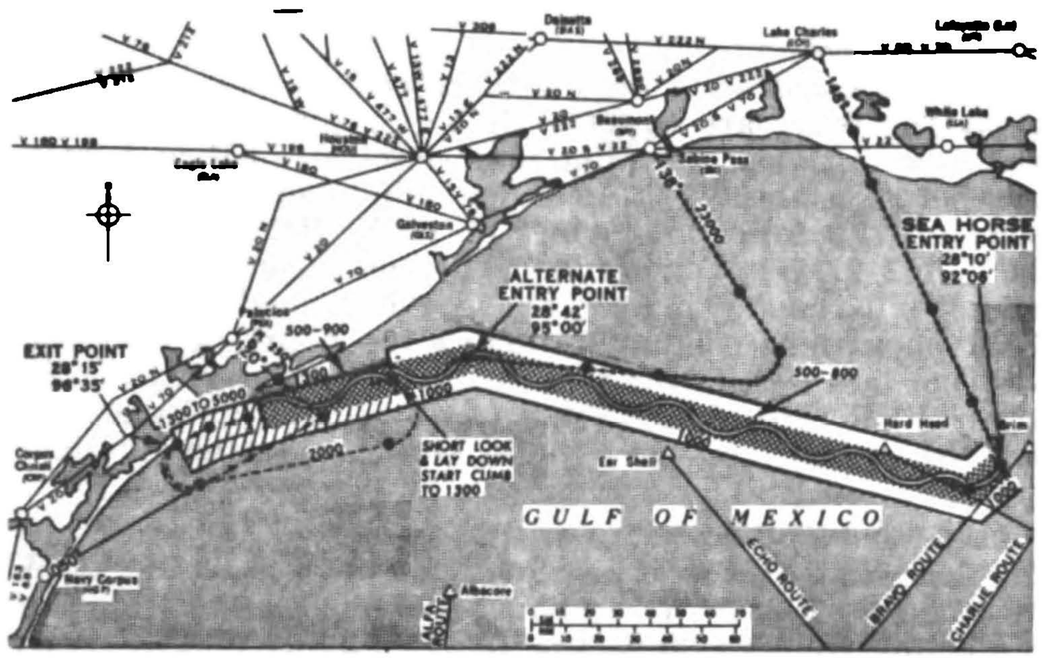
Aircraft shall cross the Lake Charles, La., VOR at 23,000' MSL, or as assigned; maintain 23,000' MSL or as assigned via the Lake Charles VOR 148° radial to to 25 NM fix; start descent, cross 20°31'N, 92°47'W at 19,000' MSL, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1000' MSL (Low level entry point). Maintain 1000' MSL, turn right to 28°03'N, 92°16'W, direct to 28°42'N, 95°00'W, direct to 28°35'N, 95°25'W.

Short Look and Lay Down—After passing 28°35'N, 95°-25'W climb to 1300' MSL direct 28°23'N, 96°12'W. After passing 28°23'N, 96°12'W aircraft shall maintain between 1300' and 5000' MSL through the bomb run corridor (5 SM either side of centerline from 28°23'N, 96°12'W direct 28°20'N, 96°25'W direct 28°15'N, 96°35'W). (The minimum IFR altitude through the bomb run corridor is 1300' MSL) to 28°15'N, 96°35'W, the route exit point, turn left to intercept the Navy Corpus VOR 050 radial (reporting point); then climb via the Navy Corpus VOR 050 radial to intercept the Palacios, Texas VOR 120 radial at 18,000' MSL or above. Climb via the Palacois VOR 120 radial so as to reach FL 250 at a point 18 NM southeast of the Palacios VOR, cross the Palacios VOR at FL 250.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15'N, 96°-35'W turn left to intercept the Navy Corpus VOR 050° radial at 2000' MSL, maintain 2000' MSL direct 28°-22'N, 95°26'W; turn left descending so as to cross 28°-35'N, 95°25'W at 1300' MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000',

visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 28°10′N, 92°06′W to 28°24′N, 96°09′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached during daylight hours.



Alternate Entry—Aircraft shall cross the Sabine Pass VOR at 23,000′ MSL or as assigned, then via Sabine Pass VOR 138° radial maintaining 23,000′ MSL until the 47 NM fix (29°02′N, 93°33′W). Start descent direct to cross 28°44′N, 93°19′W at 16,000′ MSL turn right, descend to cross 28°37′N, 93°58′W at 4000′ MSL; descend direct to cross 28°39′N, 94°21′W at 1000′ MSL direct 28°42′N, 95°00′W thence via published route.

Route Width—The route width is reduced to 5 SM north of the centerline from 28°35′N, 95°25′W to 28°15′N, 96°35′W.

Hours of Operation—24 hours daily, seven days per week.

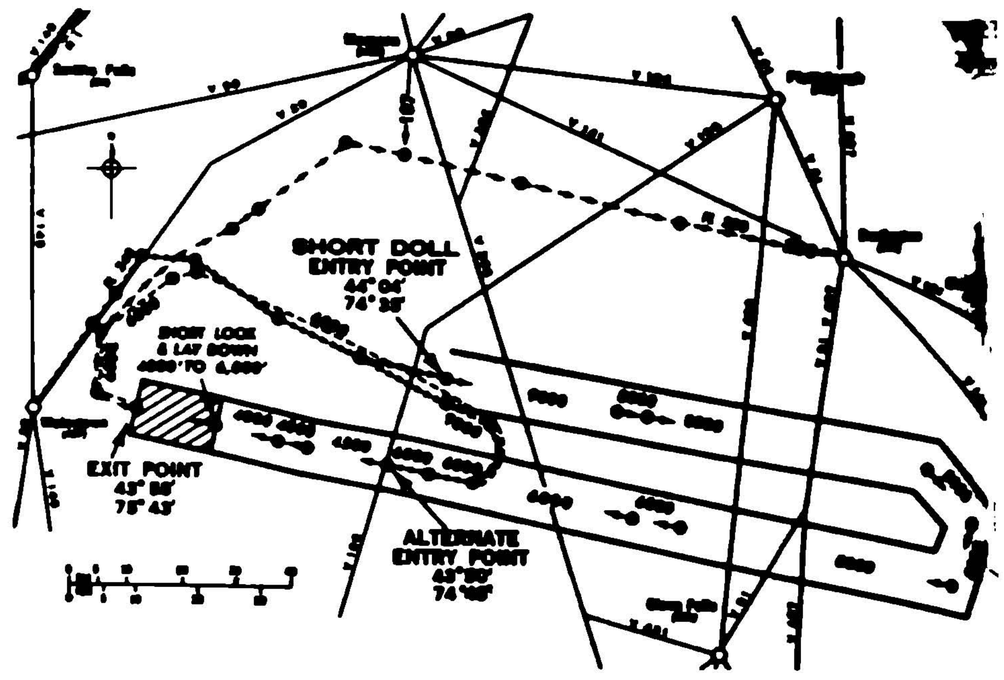
NEW YORK/VERMONT

SHORT DOLL

Effective September 6, 1964

Aircraft shall cross 43°57′N, 76°04′W (Watertown, New York VOR) at FL 290; descend, cross 44°11′N, 75°52′W at FL 250 or above ; cross 44°16′N, 75°47′W at FL 240; direct 44°22′N, 75°42′W; cross 44°22′N, 75°-30′W at 19,000′; cross 44°13′N, 75°12′W at 14,000′; cross 44°07′N, 74°54′W below 12,000′; cross 44°04′N, 74°35′W, the entry point to the low level route, at 9000′; maintain 9000′ direct 43°59′N, 73°58′W; descend, cross 43°58′N, 73°52′W at 8000′; maintain 8000′ direct 43°-50′N, 72°52′W; direct 43°41′N, 72°40′W; direct 43°31′N, 72°46′W; direct 43°40′N, 73°45′W; descend, cross 43°-42′N, 73°56′W at 6000′ MSL; direct 43°50′N, 74°48′W; descend, cross 43°52′N, 75°05′W at 4500′ MSL; descend, cross 43°53′N, 75°11′W at 4000′ MSL, maintain 4000′ MSL direct to the entry point of the bomb run corridor at 43°55′N, 75°25′W.

Short Look and Lay Down—After passing 43°55′N, 75°-25′W aircraft shall operate through the bomb run corridor between 4000′ and 6000′ MSL (the bomb run corridor is 5 SM either side of centerline from 43°55′N, 75°25′W to 43°58′N, 75°43′W). After exiting the low level route at 43°58′N, 75°43′W aircraft shall cross 44°-00′N, 75°51′W at 6000′ MSL, maintain 6000′ MSL direct 44°10′N, 75°51′W; direct 44°27′N, 75°22′W; climb, cross 44°30′N, 75°17′W at 13,000′ or below; cross 44°41′N, 74°58′W at 15,000′ or above (Burlington, Vt. VOR 2 radial); direct (via Burlington VOR 298 radial) cr 44°39′N, 74°45′W at 19,000′ (Massena, N.Y. VOR 1 radial); continue climb, cross 44°35′N, 74°19′W 23,000′; cross 44°29′N, 73°45′W at FL 280, maintain 280, direct 44°24′N, 73°11′W (Burlington, Vt. VOR).



Re-Entry—After completing the bomb run, aircr scheduled for an additional bomb run shall, after exiti the route at 43°58′N, 75°43′W; cross 44°00′N, 75°51′- at 6000′; maintain 6000′ direct 44°10′N, 75°51′W; dir 44°19′N, 75°35′W; direct 44°20′N, 75°30′W; direct 4 57′N, 74°26′W; right turn to 43°47′N, 74°30′W; the via the "Short Doll" route.

Alternate Entry—Aircraft shall cross 43°57′N, 76°04′ (Watertown, N.Y. VOR) at FL 290; descend, cross 4 11′N, 75°52′W at FL 250 or above; cross 44°16′N, 7 47′W at FL 240, direct 44°22′N, 75°42′W; cross 44°22′ 75°30′W at 19,000′; cross 44°13′N, 75°12′W at 14,00 cross 44°07′N, 74°54′W below 12,000′; cross 44°00 74°35′W at 9000′; maintain 9000°, direct 43°57′N, 7- 26′W; right turn to 43°47′N, 74°30′W; descend, cr 43°48′N, 74°39′W at 7000′ or below; cross 43°50′N, 7- 48′W at 6000′; thence via the "Short Doll" route.

Route Width—The entire low level route is reduced to SM either side of centerline.

Hours of Operation—0000Z to 2359Z, Monday thru Su day.

SOUTH DAKOTA

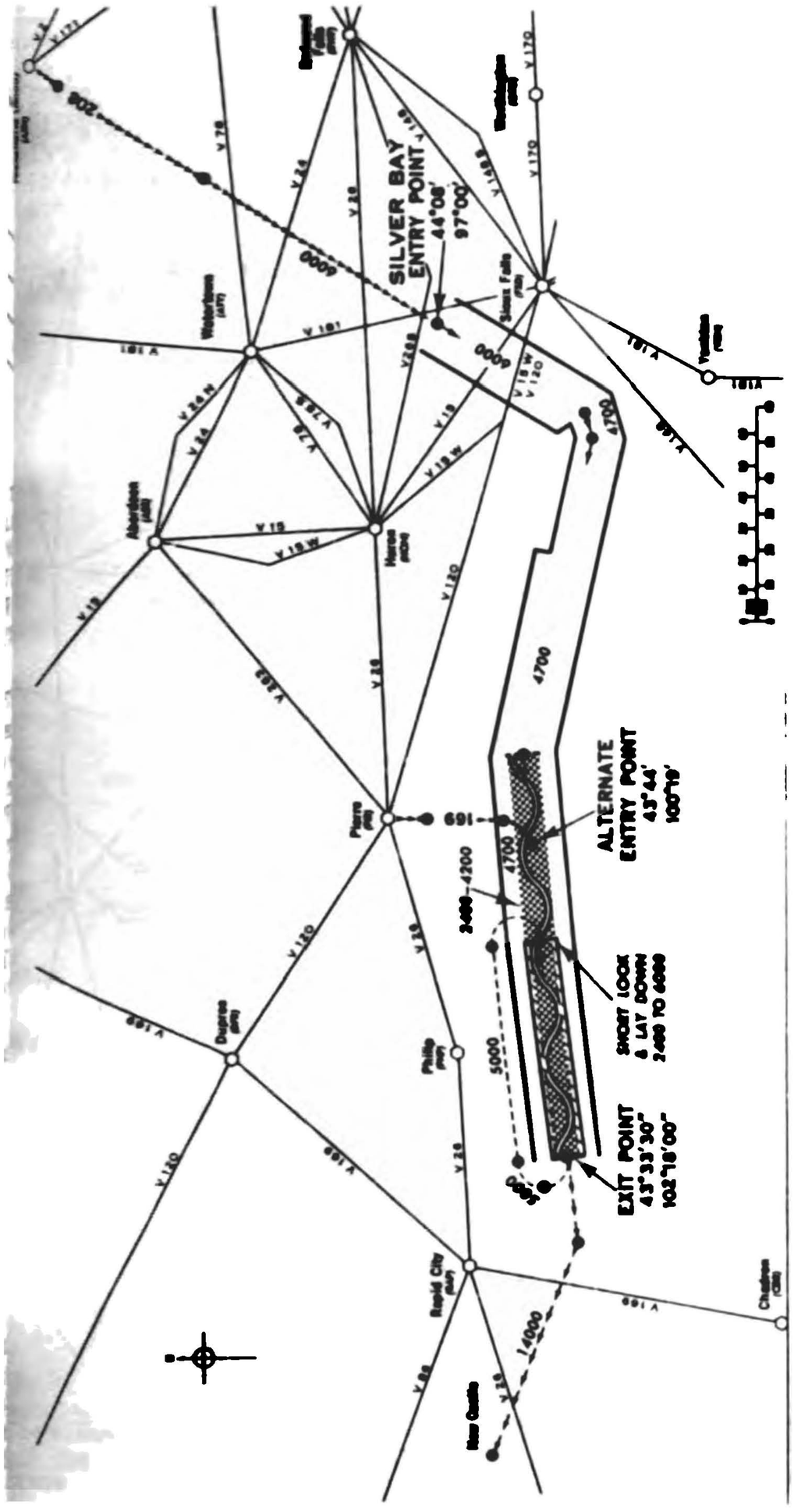
SILVER BAY

Effective October 18, 1964

Aircraft shall cross the Alexandria, Minn. VOR 20,000′ MSL or as assigned by ARTCC and proceed the Alexandria VOR 208° radial maintaining 20,000′ M or assigned altitude until 10 NM SW; then descend dir so as to cross 45°10′N, 96°00′W at 6000′ MSL; then 6000′ MSL direct 44°08′N, 97°00′W (low level ent point); then at 6000′ MSL direct 43°29′N, 97°35′W; th turn right descending so as to cross 43°27′N, 97°45′W 4700′ MSL; then at 4700′ MSL direct 43°47′N, 99°45′ then at 4700′ MSL direct to 43°42′N, 100°56′W.

Short Look and Lay Down—After passing 43°42′N, 10 56′W, aircraft shall maintain between 2400′ MSL a 6000′ MSL through the bomb run corridor (5 SM eith side of centerline from 43°42′N, 100°56′W to 43°3 30′′N, 102°18′W). The minimum IFR altitude throu the corridor is 4700′ MSL. After exiting the route 43°33′30′′N, 102°18′W aircraft shall climb so as to cr 43°30′N, 102°50′W at 14,000′ MSL; then at 14,000′ M direct to 43°51′N, 104°13′W. (New Castle, Wyomin

Re-Entry—After completing the initial bomb run aircraft hat are scheduled to execute an additional bomb run hall after exiting the route at 43°33′30′′N, 102°18′W urn right and climb or descend so as to cross 43°40′N, 02°29′W, at 5000′ MSL; then at 5000′ MSL continue urn to 43°47′N, 102°20′W; then at 5000′ MSL direct 3°55′N, 100°58′W; then turn right descending so as to ıtercept the Silver Bay route at 43°42′N, 100°56′W at 700′ MSL; thence via the published route.



VFR and Contour—If the encountered weather conditions long the route are equal to or better than ceiling 3000′, isibility 5 miles, the pilot may descend VFR and operate etween the VFR altitudes indicated on the chart be- ween the following points: From 43°47′N, 99°45′W to 3°33′30′′N, 102°18′W. During daylight hours some VFR perations will be flown 500′ above the immediate terrain. FR operation conducted during the hours of darkness ·ill not be flonw lower than 800′ above the terrain. The ›wer VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000′ MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 169° radial maintaining 15,000′ MSL or assigned altitude until 10 NM south (44°13′N, 100°10′W); then descend direct to 43°52′N, 100°10′W; then turn right descending so as to cross 43°44′N, 100°19′W at 4700′ MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM north of centerline between 43°29′N, 97°35′W to 43°35′N, 98°-30′W.

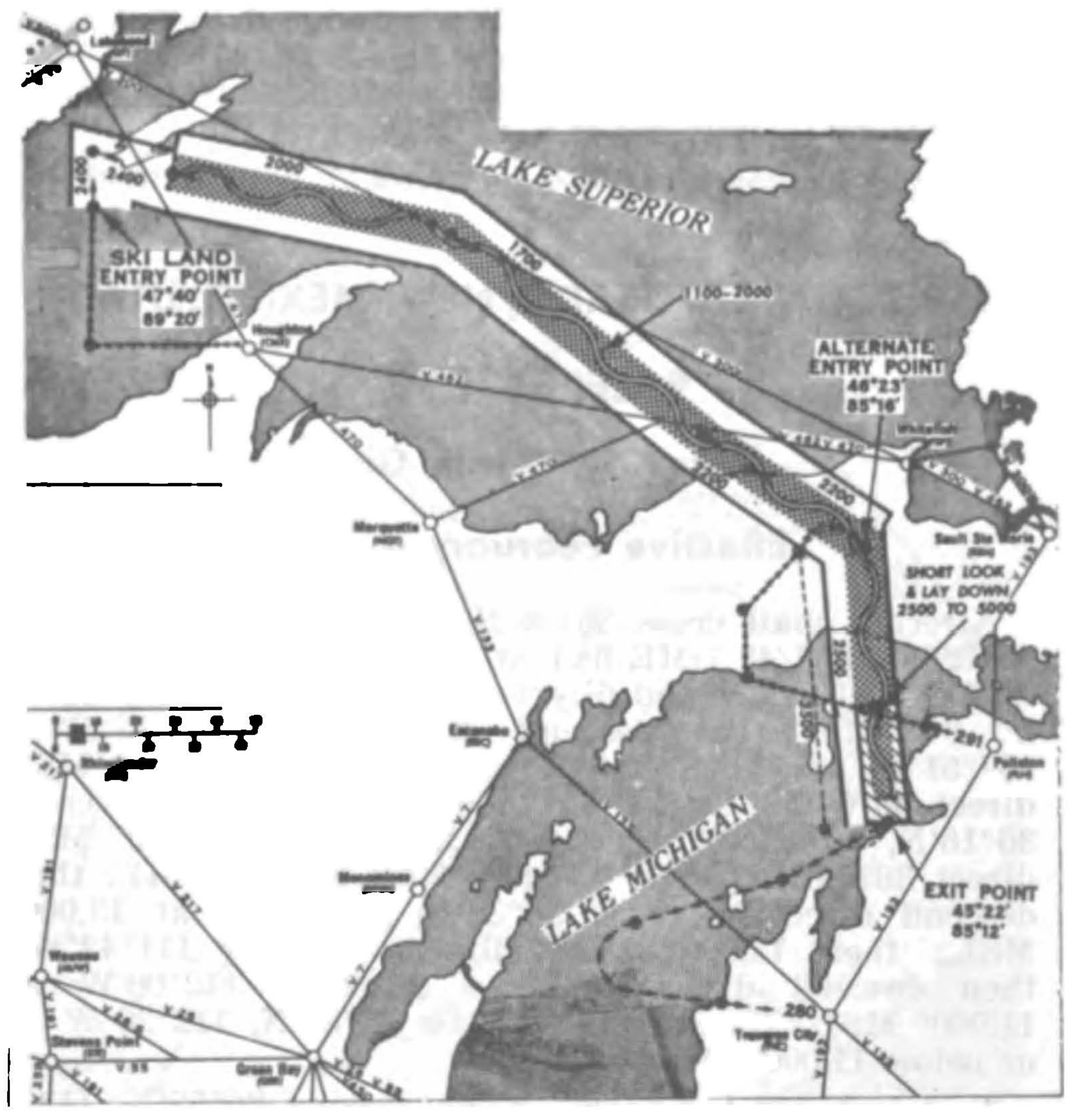
Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND

Effective September 6, 1964

Aircraft shall cross the Houghton, Michigan VOR at 20,000′ MSL or as assigned by ARTCC; then descend direct so as to cross 47°10′N, 89°20′W at 11,000′ MSL; then turn right continuing descent so as to cross the route entry point at 47°40′N, 89°20′W at 2400′ MSL, then at 2400′ MSL direct 47°52′′N, 89°20′W, then at 2400′ MSL direct 47°48′N, 88°55′W; then descend to 2000′ MSL direct 47°35′N, 87°25′W; then descend to 1700′ MSL direct 46°49′N, 86°06′W; then climb so as to cross 46°42′N, 85°52′W at 2200′MSL, then at 2200′ MSL direct 46°23′N, 85°16′W; then climb to 2500′ MSL direct 45°-48′N, 85°15′W.



Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°-12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N,

86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at 21,000′ MSL. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W, turn right climbing so as to cross 45°21′N, 85°32′W at 3500′ MSL, then at 3500′ MSL direct to 46°23′N, 85°37′W; then turn right descending so as to cross 46°23′N, 85°-16′W at 2500′ MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 88°55′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000′ MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000′ MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 5 statute miles west and north of centerline from 47°40′N, 89°-20′W to 47°48′N, 88°55′W, and east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

ARIZONA/COLORADO/NEW MEXICO/UTAH

•SLEEPY EYE

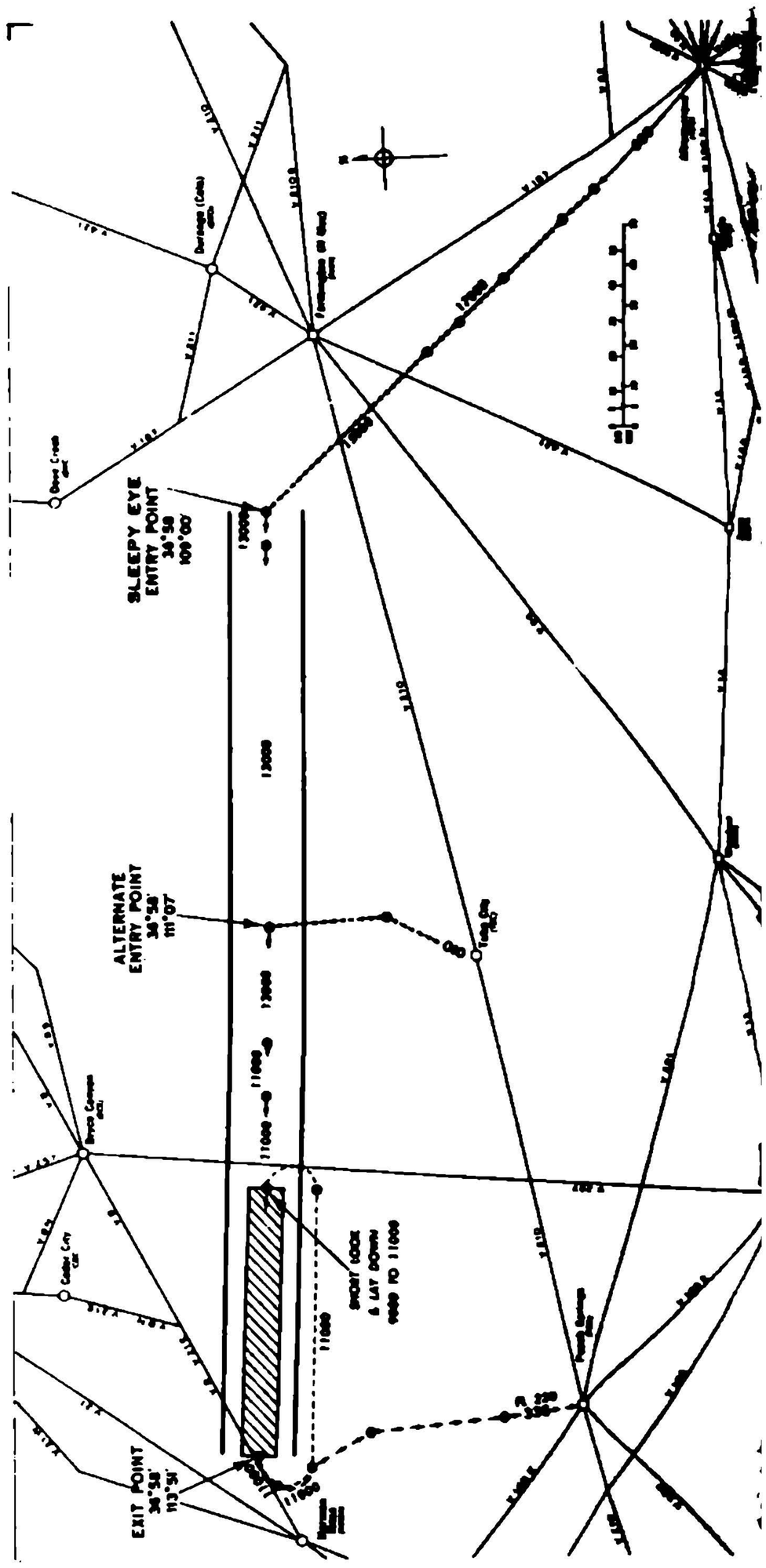
(Formerly "Main Gate")

Effective February 4, 1965

Aircraft shall cross 35°34′N, 107°24′W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42′N, 107°33′W at FL 210; then descend direct to cross 35°57′N, 107°51′W at 17,000′ MSL; then maintain 17,000′ MSL direct 36°09′N, 108°04′W; then descend direct to cross 36°16′N, 108°12′W at 15,000′ MSL; then 15,000′ MSL direct 36°58′N, 109°00′W (low level entry point); then descend direct to cross 36°58′N, 109°10′W at 13,000′ MSL; then 13,000′ MSL direct 36°58′N, 111°42′W; then descend direct to cross 36°58′N, 112°00′W at 11,000′ MSL; then direct to cross 36°58′N, 112°29′W at or below 11,000′ MSL.

Short Look and Lay Down—After passing 36°58′N, 112°-29′W aircraft shall operate between 9,000′ and 11,000′ MSL through the bomb run corridor (5 SM either side of centerline from 36°58′N, 112°29′W to 36°58′N, 113°-51′W). After exiting the route at 36°58′N, 113°51′W aircraft shall turn left climbing to cross 36°53′N, 114°-00′W at 11,000′ MSL; then maintain 11,000′ MSL direct to 36°44′N, 113°53′W; then climb via direct to cross 36°30′N, 113°42′W at or below 17,000′ MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°-58′N, 113°36′W (PGS 336/21 DME fix) at FL 230; th intercept and proceed via Peach Springs 336 radial Peach Springs (35°37′30″N, 113°32′W).

Re-Entry—After completing the initial bomb run, a craft that are scheduled to execute an additional bo run shall, after exiting the route at 36°58′N, 113°51′ turn left via direct to cross 36°53′N, 114°00′W at 11,(MSL; then 11,000′ MSL direct 36°44′N, 113°53′W; th 11,000′ MSL direct 36°44′N, 112°29′W; then turn l direct to cross 36°58′N, 112°29′W at or below 11,0 MSL; thence via published route.



Alternate Entry—Aircraft shall cross the Tuba C Arizona VOR (36°07′30″N, 111°16′W) (Report Point) at FL 240 or as asigned by the ARTCC: t maintain FL 240 or assigned altitude via Tuba City radial until 23 miles north (36°28′N, 111°04′W): t descend direct to cross 36°58′N, 111°07′W at 13,(MSL; thence via published route.

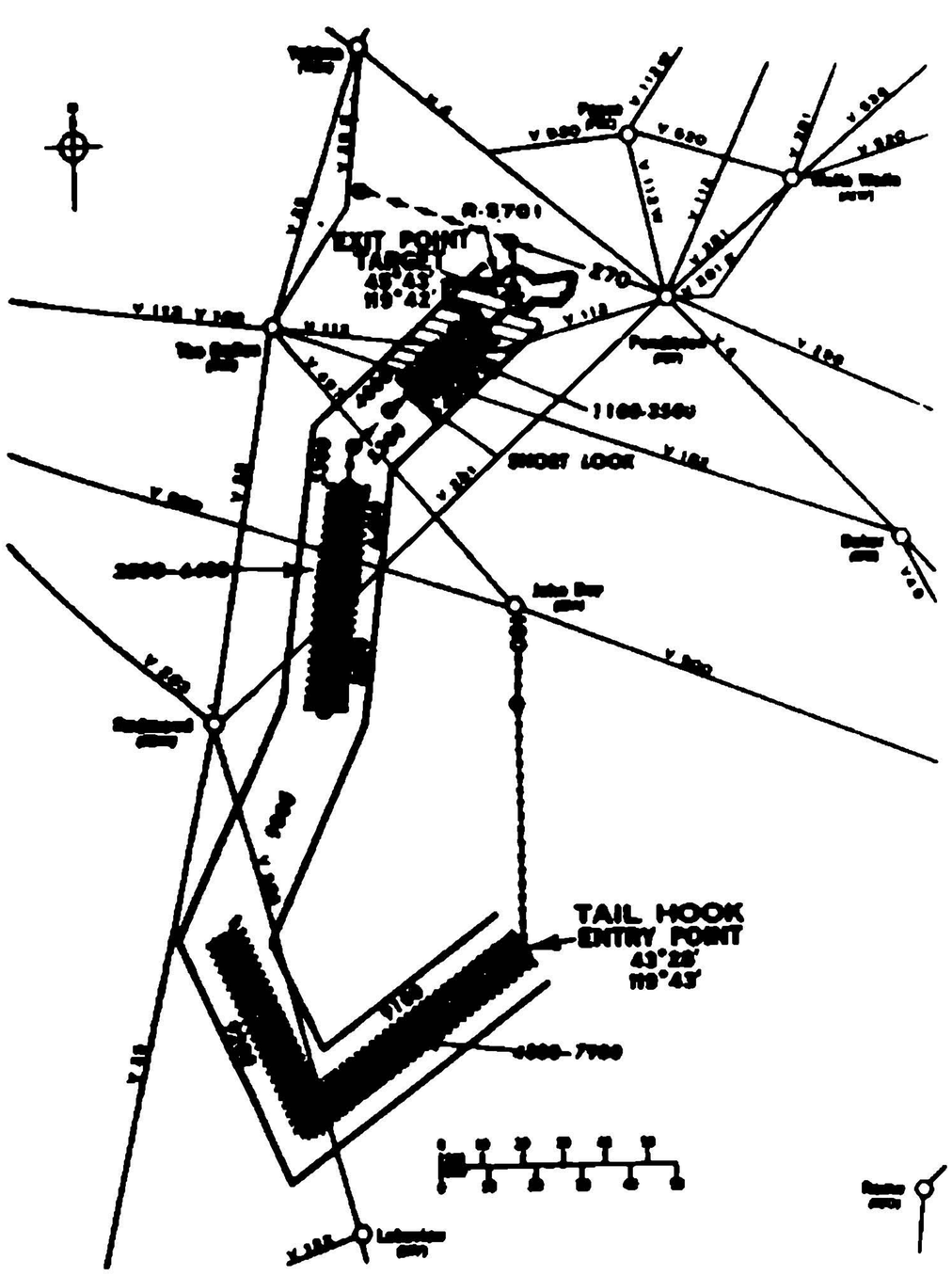
Hours of Operation—24 hours daily, 7 days a week.

OREGON

TAIL HOOK

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000′ MSL, or as assigned by Seattle RTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19′N, 119°43′W); then descend to 9100′ MSL to the entry point of the low level route at 43°28′N, 119°43′W; then 9100′ MSL direct to 45°54′N, 120°45′W; then climb to 9200′ MSL direct to 46°31′N, 121°08′W; then descend to 9000′ MSL direct to 45°18′N, 120°39′W; then descend to 8300′ MSL direct 44°40′N, 120°36′W; then descend to 6400′ MSL direct 45°05′N, 120°31′W; then descend to 5300′ MSL direct 45°13′N, 120°30′W; then 5300′ MSL direct to 45°20′N, 120°19′W; then descend so as to cross 45°23′N, 120°13′W 4000′ MSL.



Short Look—After passing 45°28′N, 120°13′W, aircraft shall maintain 4000′ MSL until within Restricted Area 5701; after crossing RBS target located at 45°43′N, 119°42′W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000′ MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 16,000′ MSL.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ and visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28′N, 119°43′W to 43°31′N, 121°08′W, from 44°18′N, 120°39′W to 45°05′N, 120°31′W, and from 45°23′N, 120°13′W to restricted area R-5701. During daylight hours, VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800′ above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

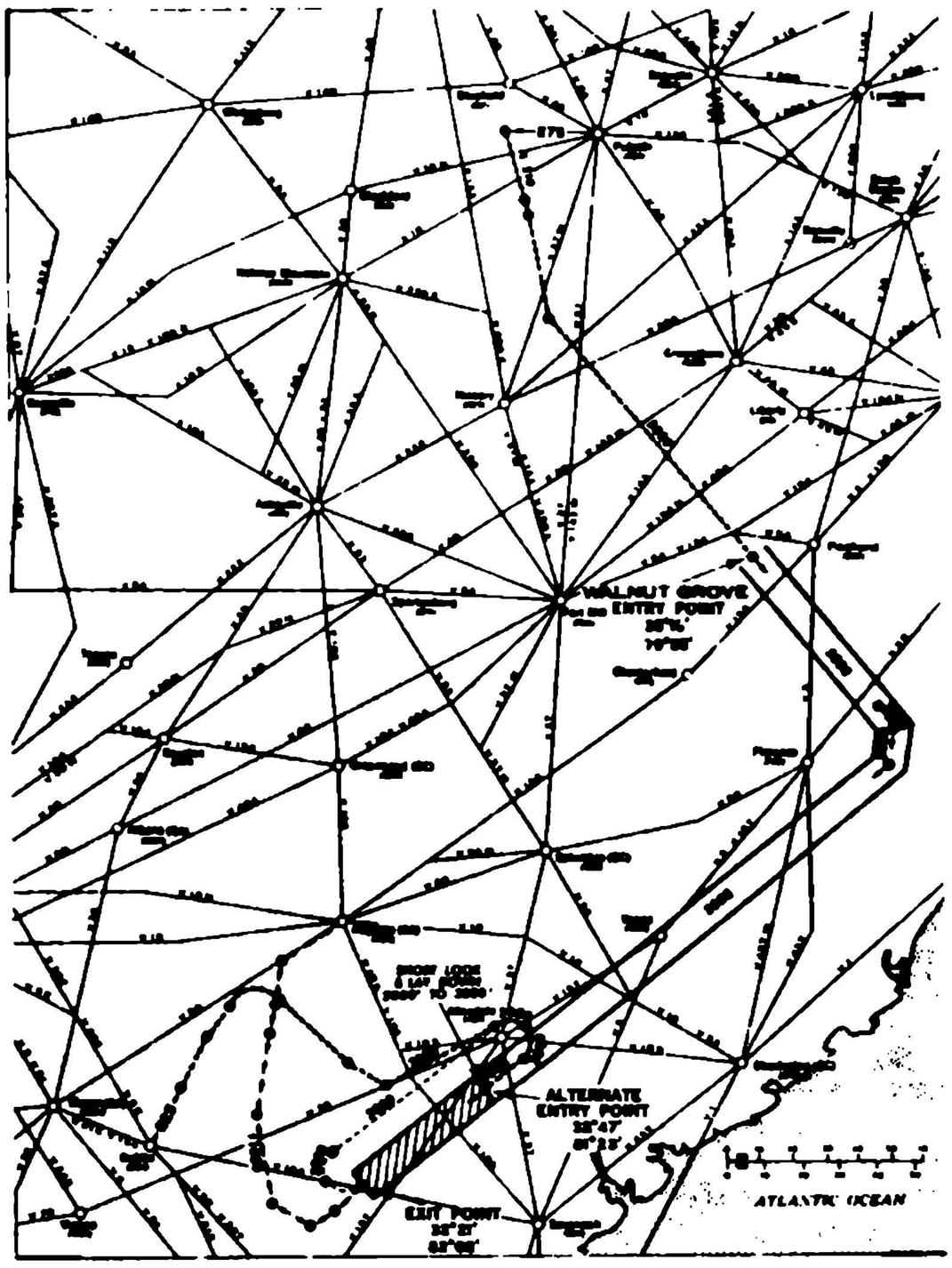
Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE

Revised Effective January 4, 1965

Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06′N, 81°14′W) at FL 210 or as assigned by ARTC; then maintain and cross 36°47′N, 81°08′W at FL 210; then descend direct so as to cross 36°43′N, 81°07′W at FL 180 or above; then descend direct so as to cross 36°15′N, 81°00′W at 5000′ MSL; then at 5000′ MSL direct to 35°10′N, 79°55′W (low level entry point); then at 5000′ MSL direct to 34°20′N, 79°16′W; then descend direct so as to cross 34°23′N, 79°11′W at 2000′ MSL; then at 2000′ MSL turn right to 34°13′N, 79°13′W; then at 2000′ MSL direct to 32°47′N, 81°23′W.



Short Look and Lay Down—After passing 32°47′N, 81°23′W aircraft shall maintain between 2000′ MSL and 3000′ MSL through the bomb run corridor (5 SM either side of center line from 32°47′N, 81°23′W to 32°21′N, 82°-

02′W). After exiting the route at 32°21′N, 82°02′W, aircraft shall climb to or maintain 3000′ MSL to 32°-14′N, 82°10′W; then climb direct so as to cross 32°10′N, 82°18′W at 6000′ MSL; then climb direct so as to cross 32°16′N, 82°30′W at 11,000′ MSL; maintain 11,000′ direct 32°40′N, 82°35′W; then climb direct so as to cross 33°02′N, 82°31′W at FL 180; cross 33°10′N, 82°29′W at FL 200; cross 33°22′N, 82°27′W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Georgia VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21′N, 82°02′W, turn right and descend or maintain 2000′ MSL to 32°22′N, 82°13′W; then at 2000′ MSL continue turn to 32°30′N, 82°11′W; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′N, 81°10′W; continue turn to 32°-55′N, 81°11′W; then at 2000′ MSL direct to 32°47′N, 81°23′W; thence via the published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31′N, 83°08′W) at FL 260 or as assigned; then descend direct via the Dublin VOR 025° radial so as to cross 32°47′N, 82°59′W at FL 230; cross 33°01′N, 82°51′W at 17,000′ MSL; cross 33°09′N, 82°44′W at 15,000′ MSL; turn right to cross 33°11′N, 82°28′W at 13,000′ MSL; cross 32°54′N, 82°06′W at 3000′ MSL; then descend direct so as to cross 32°48′N, 81°54′W at 2000′ MSL; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to intercept the Walnut Grove route at 32°47′N, 81°23′W.

Route Width—The entire route width is reduced to 5 SM either side of centerline.

Hours of Operation—Primary entry 1900Z to 2300Z and from 0100Z to 1400Z, 7 days per week; alternate entry 24 hours per day, 7 days per week.

COLORADO/KANSAS/NEW MEXICO OKLAHOMA/TEXAS

ZERO HOUR

Revised Effective November 1, 1964

Aircraft shall cross 34°22′N, 105°40′30″W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ATC, then descend direct to cross 34°33′N, 105°33′W at or below 23,000′ MSL; then descend direct to cross 34°40′N, 105°28′W at 22,000′ MSL; then descend direct to cross 34°45′N, 105°12′W at or below 18,000′ MSL; then descend direct to cross 34°53′N, 104°48′W at 10,000′ MSL; then descend direct to cross the route entry point at 34°47′N, 104°29′W at 7000′ MSL, maintain 7000′ MSL direct to 35°24′N, 104°08W, then 7000′ MSL direct to 36°37′N, 102°50′W; then descend direct to cross 36°49′N, 102°35′W at 6000′ MSL, maintain 6000′ MSL direct to 37°03′N, 102°17′W, then 6000′ MSL direct to 37°52′N, 103°10′W.

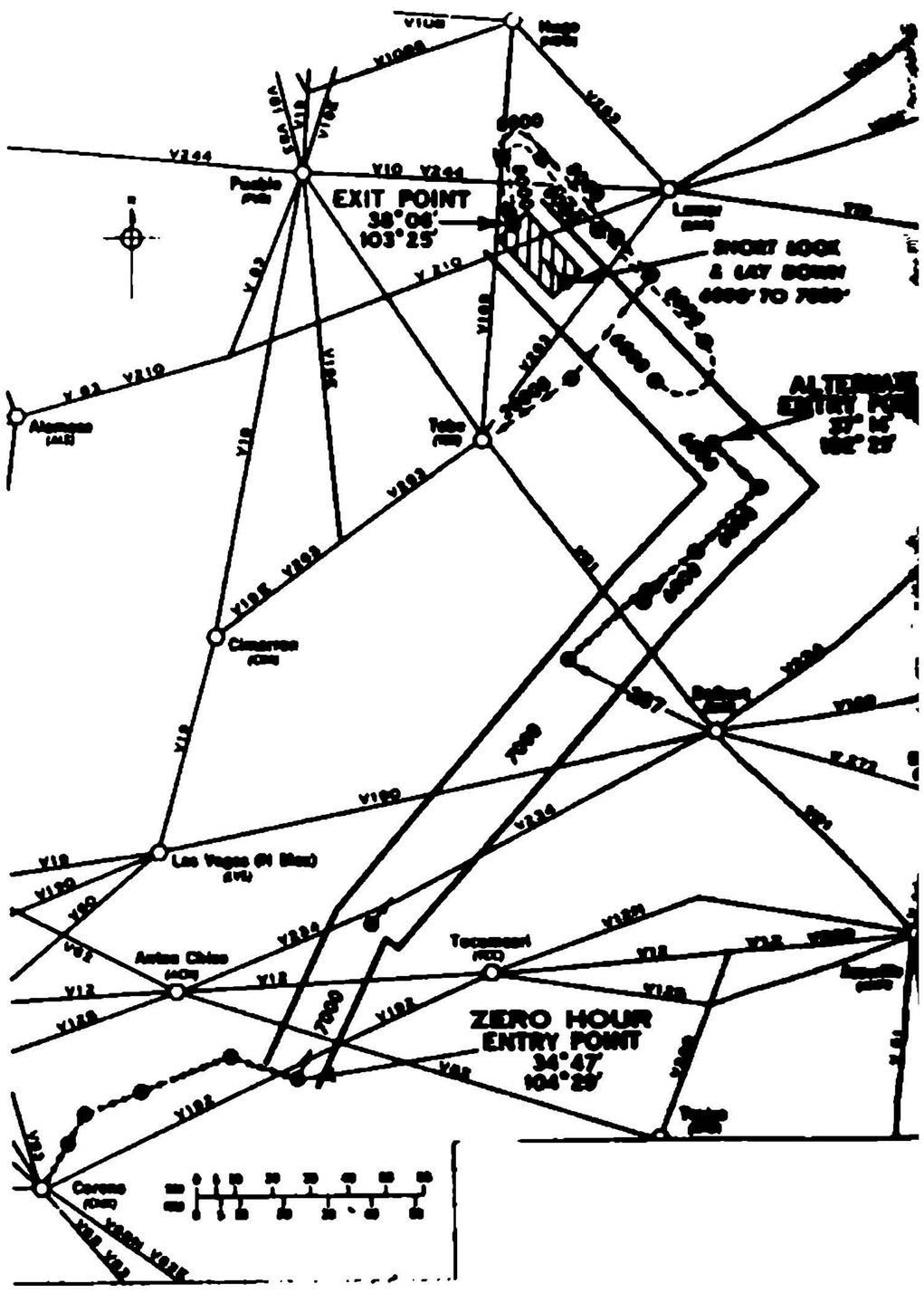
Short Look and Lay Down—After passing 37°52′N, 103°-10′W aircraft shall maintain between 6000′ and 7000′ MSL thru the bomb run corridor (5 SM either side of centerline from 37°52′N, 103°10′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, maintain 80 MSL direct to 38°22′N, 103°27′W, then 8000′ MSL dir to 38°21′N, 103°17′W; then 8000′ MSL direct 38°02′ 102°55′W; then direct to cross 37°53′N, 102°45′W 9000′ MSL; then climb direct to cross 37°30′N, 103°0 at FL 200; then maintain FL 200 direct to Tobe VO TAC.

Re-Entry—After completing the initial Short Look bo run aircraft that are scheduled to execute an additio bomb run shall, after exiting the route at 38°06′N, 10 25′W, climb direct to cross 38°09′N, 103°26′W at 80 MSL, maintain 8000′ MSL direct to 38°22′N, 103°27′ then 8000 MSL direct to 38°21′N, 103°17′W, then 80 MSL direct to 38°04′N, 103°00′W, then 8000′ MSL dir to 37°38′N, 102°31′W; then turn right descending to cr 37°29′N, 102°45′W at 6000′ MSL, thence via the p lished route.

Alternate Entry—Aircraft shall cross 36°23′N, 103°13′ (Dalhart VORTAC 287/37) (reporting point) at 15,0 MSL, maintain 15,000′ MSL direct to 36°39′N, 102°4 30′′W; then descend direct to cross 36°49′N, 102°35′ at 11,000′ MSL, maintain 11,000′ MSL direct to 37°03′ 102°17′W; then descend direct to cross 37°14′N, 10 29′W at 6000′ MSL, thence via the published route.

Route Width—The route width from 34°47′N, 104°29′ to 35°24′N, 104°08′W is reduced to 5 SM on the east si of centerline.

Hours of Operation—24 hours daily, 7 days per we



STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effctve Jan. 30, 1965:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
thens, Ohio—Ohio University Arpt	No. 1, Amdt. 1	Revised
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. 2, Amdt. 5	Revised
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. 4, Amdt. 1	Revised
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. 5, Amdt. 1	Revised
ovington, Ky.—Greater Cincinnati Arpt	No. 2, Amdt. 3	Revised
amilton, Ohio—Hamilton Airport Inc.	No. 1, Amdt. 1	Revised
ynchburg, Va.—Lynchburg Mun-Preston Glenn Fld	No. 1, Amdt. 3	Revised
VHF OMNIRANGE		
berdeen S. D.—Aberdeen Mun Arpt	No. 1, Amdt. 7	Revised
uburn, Indiana—Auburn DeKalb Arpt	No. 1, Orig.	Established
hicago, Ill.—Pal-Waukee Arpt	No. 1, Amdt. 6	Revised
remont, Mich.—Fremont Mun Arpt	No. 1, Orig.	Established
ynchburg, Va.—Lynchburg Mun—Preston Glenn Fld	No. 1, Amdt. 4	Revised
ew York, N. Y.—John F. Kennedy Int'l Arpt	No. VOR-13L/13R, Amdt. 1	Revised
est Lafayette, Indiana-Purdue University Arpt	No. 1, Amdt. 11	Revised
TERMINAL VOR		
lint, Mich.—Bishop Arpt	No. TerVOR-9, Amdt. 4	Revised
VOR/DME		
acksonville, Fla.—Thomas Cole Imeson Arpt	No. VOR/DME #1, Orig.	Established
acksonville, Fla.—Thomas Cole Imeson Arpt	No. VOR/DME #2, Orig.	Established
ynchburg, Va.—Lynchburg Mun-Preston Glenn Fld	No. VOR/DME #1, Orig.	Established
rlando, Fla.—Herndon Arpt	No. VOR/DME #1, Amdt. 2	Revised
rlando, Fla.—Herndon Arpt	No. VOR/DME #2, Amdt. 1	Revised
INSTRUMENT LANDING SYSTEM		
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. ILS-14L, Amdt. 6	Revised
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. ILS-14R, Amdt. 9	Revised
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. ILS-27, Amdt. 5	Revised
hicago, Ill.—Chicago- O'Hare Int'l Arpt	No. ILS-32L, Amdt. 1	Revised
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. ILS-32R, (Back Course) Amdt. 4	Revised
ovington, Ky.—Greater Cincinnati Arpt	No. ILS-18, Amdt. 2	Revised
ovington, Ky.—Greater Cincinnati Arpt	No. ILS-18 (BC) Amdt. 1	Revised
uluth, Minn.—Duluth Int'l Arpt	No. ILS-27, Amdt. 2, (Back Course)	Revised
ahului, Maui, Hawaii—Kahului Arpt	No. ILS-2, Amdt. 2	Revised
ynchburg, Va.—Lynchburg Mun-Preston Glenn Fld.	No. ILS-3, Amdt. 2	Revised
ioux Falls, S.D.—Joe Foss Fld.	No. ILS-21, (Back Course), Amdt. 6	Revised
ampa, Fla.—Tampa Int'l Arpt	No. ILS-18L, Amdt. 20	Revised
RADAR		
hicago, Ill.—Chicago-O'Hare Int'l Arpt	No. 1, Amdt. 11, efctv 30 Jan 65	Revised
ndianapolis, Ind.—Indianapolis Mun (weir-Cook) arpt	No. 1, Amdt. 14	Revised
ontgomery, Ala.—Dannelly Fld	No. 1, Amdt. 11	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Feb. 6, 1965:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Del Rio, Texas—International Arpt	No. 1, Orig.	Established
Kotzebue, Alaska—Ralph Wien Memorial Arpt	No. 1, Amdt. 7	Revised
LaCrosse, Wisc.—LaCrosse Mun Arpt	No. 1, Amdt. 1, 25 Jul 64	Cancelled
Memphis, Tenn.—Memphis Metropolitan Arpt	No. 1, Amdt. 13	Revised
Memphis, Tenn.—Memphis Metropolitan Arpt	No. 2, Amdt. 4	Revised
Youngstown, Ohio—Youngstown Mun Arpt	No. 1, Amdt. 10	Revised
VHF OMNIRANGE		
Del Rio, Texas—International Arpt	No. 1, Orig.	Established
Laredo, Texas—Laredo Mun Arpt	No. 1, Orig.	Established
Memphis, Tenn.—Memphis Metropolitan Arpt	No. 1, Amdt. 17	Cancelled
Visalia, Calif.—Visalia Mun Arpt	No. 1, Orig.	Established
TERMINAL VOR		
Grand Rapids, Minn.—Grand Rapids Mun Arpt	No. TerVOR-34, Orig., efctv 10 Dec 64	Cancelled
LaCrosse, Wisc.—LaCrosse Mun Arpt	TerVOR-13, Amdt. 6	Revised
LaCrosse, Wisc.—LaCrosse Mun Arpt	Ter VOR-36, Amdt. 9	Revised
Santa Ana, Calif.—Orange Co., Arpt	VOR-19R, Amdt. 5	Revised
INSTRUMENT LANDING SYSTEM		
Minneapolis, Minn.—Minneapolis-St. Paul Intl. Arpt	No. ILS-22, (Back Course), Amdt. 3	Revised
New Orleans, La.—New Orleans Intl. Arpt (Moisant)	No. ILS-28, (Back Course), Orig.	Established
Youngstown, Ohio—Youngstown Mun Arpt	No. ILS-32, Amdt. 12	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Feb. 13, 1965:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Alpena, Mich.—Phelps Collins Arpt	No. 1, Amdt. 5	Revised
Burbank, Calif.—Lockheed Air Terminal	No. 1, Orig.	Established
Cleveland, Ohio—Cleveland Hopkins Arpt	No. 1, Orig.	Established
Columbia, S. C.—Columbia Arpt	No. 1, Amdt. 9	Revised
Crestview, Fla.—Crestview Arpt	No. 1, Amdt. 3, efctv 25 Jan 64	Cancelled
Los Angeles, Calif.—Van Nuys Arpt	No. 1, Orig.	Established
Utica, N. Y.—Oneida County Arpt	No. 1, Amdt. 6	Revised
Utica, N. Y. Oneida County Arpt	No. 2, Amdt. 1	Revised
VHF OMNIRANGE		
Atlanta, Ga.—Atlanta Arpt	No. 2, Amdt. 2	Revised
Crestview, Fla.—Crestview Arpt	No. 1, Amdt. 8 efctv 25 Jan 64	Cancelled
Hibbing, Minn.—Chisholm-Hibbing Arpt	No. 1, Amdt. 2	Revised
Hibbing, Minn.—Chisholm-Hibbing Arpt	No. 2, Orig.	Established
TERMINAL VOR		
Flint, Mich.—Bishop Arpt	No. TerVOR-9, Amdt. 5	Revised
Los Angeles, Calif.—Los Angeles Int'l Arpt	No. TerVOR-25L, Amdt. 3	Revised
Santa Rosa, Calif.—Sonoma County Arpt	No. VOR-32, Amdt. 1	Revised
VOR/DME		
Aberdeen, S. D.—Aberdeen Mun Arpt	No. VOR/DME #1, Orig.	Established
Washington, Pa.—Washington Co Arpt	No. VOR/DME #1, Orig.	Established

Location	Procedure	Action
INSTRUMENT LANDING SYSTEM		
hicago, Ill.—Chicago-O'Hare Int'l Arpt	ILS-32L, Amdt. 2	Revised
leveland, Ohio—Cleveland Hopkins Arpt	ILS-5R, Amdt. 1	Revised
olumbia, S. C.—Columbia Arpt	ILS-10, Orig.	Established
antucket, Mass.—Nantucket Memorial Arpt	ILS-6 (Back Course), Orig.	Established
eno, Nev.—Reno Mun Arpt	ILS-16, Orig.	Established
tockton, Calif.—Stockton Metropolitan Arpt	ILS-29R, Amdt. 4	Revised
tica, N. Y.—Oneida County Arpt	ILS-15 (Back Course), Amdt. 1	Revised
tica, N. Y.—Oneida County Arpt	ILS-33, Amdt. 8	Revised
RADAR		
leveland, Ohio—Cleveland-Hopkins Arpt	No. 1, Amdt. 13	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Feb. 20, 1965:

LOW FREQUENCY RANGE		
he Dalles, Ore.—The Dalles Mun Arpt	No. 1, Amdt. 11	Revised
oledo, Wash.—Toledo-Winlock Mun Arpt	No. 1, Amdt. 4	Revised
AUTOMATIC DIRECTION FINDING		
t. Smith, Ark.—Ft. Smith Mun Arpt	No. 1, Amdt. 14	Revised
eridian, Miss—Key Field	No. 1, Amdt. 8	Revised
endleton, Ore.—Pendleton Mun Arpt	No. 1, Amdt. 4	Revised
okane, Wash.—Spokane Int'l Arpt	No. 1, Amdt. 5	Revised
acoma, Wash.—Tacoma Industrial Arpt	No. 1, Amdt. 1	Revised
acoma, Wash.—Tacoma Industrial Arpt	No. 2, Amdt. 1	Revised
alla Walla, Wash.—Walla Walla City-Co., Arpt	No. 1, Amdt. 1	Revised
VHF OMNIRANGE		
el Rio, Texas—International Arpt	No. 1, Orig.	Established
othan, Ala—Dothan Mun Arpt	No. 1, Amdt. 2	Revised
othan, Ala—Napier Field	No. 1, Amdt. 1	Revised
t. Smith, Ark.—Ft. Smith Mun Arpt	No. 1, Amdt. 8	Revised
kmulgee, Okla.—Okmulgee Mun Arpt	No. 1, Amdt. 3	Revised
rescott, Ariz.—Prescott Mun Arpt	No. 1, Amdt. 12	Revised
orrance, Calif.—Torrance Mun Arpt	No. 1, Amdt. 4	Revised
TERMINAL VOR		
harlotte, N.C.—Douglas Mun Arpt	No. TerVOR-36, Amdt. 2	Revised
lankato, Minn.—Mankato Mun Arpt	No. TerVOR-32, Amdt. 2	Revised
asco, Wash.—Pasco Public Arpt	No. VOR-20R, Amdt. 4,	Revised
asco, Wash.—Pasco Public Arpt	No. VOR-29R, Amdt. 4	Revised
alla Walla, Wash.—Walla Walla City-Co. Arpt	No. VOR-02, Amdt. 4	Revised
alla Walla, Wash.—Walla Walla City-Co. Arpt	No. VOR-16, Amdt. 6	Revised
alla Walla, Wash.—Walla Walla City-Co. Arpt	No. VOR-20, Amdt. 3	Revised
VOR/DME		
rescott, Ariz.—Prescott Mun Arpt	No. 1, Amdt. 1	Revised
pokane, Wash.—Spokane Int'l Arpt	VOR/DME #1, Amdt. 4	Revised
he Dalles, Ore.—The Dalles Mun Arpt	VOR/DME #1, Amdt. 1	Revised
orrance, Calif.—Torrance Mun Arpt	VOR/DME #1, Amdt. 1	Revised

Location	Procedure	Action
INSTRUMENT LANDING SYSTEM		
Ft. Smith, Ark.—Ft. Smith Mun Arpt	ILS–25, Amdt. 6	Revised
Meridian, Miss.—Key Field	ILS–1, Amdt. 8	Revised
Pendleton, Ore.—Pendleton Mun Arpt	ILS–25R, Amdt. 7	Revised
Raleigh, N.C.—Raleigh-Durham Arpt	ILS–5, Amdt. 8	Revised
Spokane, Wash.—Spokane Int'l Arpt	ILS–3, Amdt. 3 (Back Course)	Revised
Spokane, Wash.—Spokane Int'l Arpt	ILS–21, Amdt. 8	Revised
RADAR		
Charlotte, N.C.—Douglas Mun Arpt	No. 1, Amdt. 1	Revised
Spokane, Wash.—Spokane Int'l Arpt	No. 1, Amdt. 4	Revised

DATES OF LATEST EDITIONS

Aeronautical Charts
Coast and Geodetic Survey

SECTIONAL

	Current Edition Date	Next Edition Date
* Aberdeen	Aug 20 64	3/4/65
➔ Albany	Feb 4 65	7/22/65
* Albuquerque	Aug 20 64	3/4/65
Aroostook	Apr 30 64	4/29/65
Austin	Nov 12 64	4/29/65
Beaumont	Sep 17 64	4/1/65
Bellingham	Dec 10 64	5/27/65
Birmingham	Oct 15 64	4/29/65
Boise	May 28 64	5/27/65
* Boston	Sep 17 64	3/4/65
Burlington	Nov 12 64	4/29/65
➔ Butte	Feb 4 65	7/22/65
Casper	Oct 15 64	4/1/65
Charlotte	Oct 15 64	4/29/65
➔ Chattanooga	Feb 4 65	8/19/65
Cheyenne	Dec 10 64	6/24/65
Chicago	Dec 10 64	5/27/65
➔ Cincinnati	Feb 4 65	8/19/65
Cleveland	Nov 12 64	5/27/65
➔ Corpus Christi	Feb 4 65	7/22/65
➔ Dallas	Feb 4 65	7/22/65
Del Rio	Nov 12 64	11/11/65
Denver	Dec 10 64	6/24/65
Des Moines	Nov 12 64	4/29/65
Detroit	Jan 7 65	7/22/65
Douglas	Oct 15 64	10/14/65
Dubuque	Sep 17 64	4/1/65
Duluth	Jul 23 64	7/22/65
Elko	Dec 10 64	5/27/65
* El Paso	Aug 20 64	3/4/65
* Fargo	Aug 20 64	3/4/65
Glacier Park	Oct 15 64	10/14/65
Grand Canyon	Dec 10 64	5/27/65
Grand Junction	Nov 12 64	5/27/65
Green Bay	Dec 10 64	5/27/65
➔ Huntington	Feb 4 65	8/19/65
Jacksonville	Nov 12 64	4/29/65
➔ Kansas City	Feb 4 65	8/19/65
Klamath Falls	Sep 17 64	4/1/65
➔ Kootenai	Feb 4 65	2/3/66
➔ La Grande	Feb 4 65	7/22/65
Lake Huron	May 28 64	5/27/65
* Lake Superior	Aug 20 64	3/4/65
Lake of Woods	Aug 20 64	8/19/65
Lewiston	Nov 12 64	4/29/65
Lincoln	Oct 15 64	4/1/65
Little Rock	Jan 7 65	7/22/65
* Los Angeles	Aug 20 64	3/4/65
Miami	Sep 17 64	4/1/65
Miles City	Oct 15 64	4/29/65
Milwaukee	Dec 10 64	5/27/65
* Minot	Sep 17 64	3/4/65
➔ Mobile	Feb 4 65	7/22/65
Mt. Shasta	Nov 12 64	5/27/65
Mt. Whitney	Jan 7 65	6/24/65
Nashville	Jan 7 65	7/22/65
New Orleans	Sep 17 64	4/1/65
New York	Oct 15 64	4/1/65
* Norfolk	Sep 17 64	3/4/65
Oklahoma City	Nov 12 64	4/29/65
Orlando	Nov 12 64	4/29/65
Phoenix	Jan 7 65	7/22/65
Pocatello	Oct 15 64	4/1/65
➔ Portland	Feb 4 65	7/22/65
Prescott	Sep 17 64	4/1/65
Rapid City	Dec 10 64	6/24/65
Reno	Jan 7 65	6/24/65
Roswell	Jan 7 65	6/24/65
Sacramento	Jan 7 65	6/24/65
Salina	Sep 17 64	4/1/65
Salt Lake City	Dec 10 64	5/27/65
San Antonio	Jan 7 65	6/24/65
* San Diego	Aug 20 64	3/4/65
San Francisco	Jan 7 65	6/24/65
* Savannah	Sep 17 64	3/4/65
Seattle	Dec 10 64	6/24/65
Shreveport	Jan 7 65	6/24/65
Sioux City	Nov 12 64	5/27/65
Spokane	Dec 10 64	6/24/65
* Trinidad	Sep 17 64	3/4/65
Tulsa	Oct 15 64	4/29/65
Twin Cities	Nov 12 64	4/29/65
Washington, D.C.	Oct 15 64	4/1/65
Wichita	Jan 7 65	6/24/65
Williston	Jul 23 64	7/22/65
Winston-Salem	Oct 15 64	4/1/65
* Yellowstone Park	Sep 17 64	3/4/65
Hawaiian Is.	Dec 10 64	12/9/65

LOCAL

	Current Edition Date	Next Edition Date
Atlanta	Oct 15 64	4/29/65
* Boston	Sep 17 64	3/4/65
➔ Brownsville	Feb 4 65	7/22/65
Chicago	Dec 10 64	5/27/65
Cleveland	Nov 12 64	5/27/65
➔ Dallas-Ft. Worth	Feb 4 65	7/22/65
➔ Dayton	Feb 4 65	8/19/65
Denver	Dec 10 64	6/24/65
Detroit	Jan 7 65	7/22/65
Honolulu	Jan 7 65	1/6/66
➔ Indianapolis	Feb 4 65	8/19/65
Jacksonville	Nov 12 64	4/29/65
➔ Kansas City	Feb 4 65	8/19/65
* Los Angeles	Aug 20 64	3/4/65
Miami	Sep 17 64	4/1/65
Milwaukee	Dec 10 64	5/27/65
Montgomery	Oct 15 64	4/29/65
New York	Oct 15 64	4/1/65
* Norfolk	Sep 17 64	3/4/65
Philadelphia	Oct 15 64	4/1/65
Phoenix	Jan 7 65	7/22/65
Pittsburgh	Nov 12 64	5/27/65
➔ St. Louis	Feb 4 65	8/19/65
* San Diego	Aug 20 64	3/4/65
San Francisco	Jan 7 65	6/24/65
San Juan	Dec 10 64	12/9/65
Seattle	Dec 10 64	6/24/65
Washington	Oct 15 64	4/1/65

† DISCONTINUED

➔ New Edition published. Obsoletes Earlier Edition on Feb. 4, 1965

* New Edition will be published prior to Effective date Mar. 4, 1965

DATES OF LATEST EDITIONS (Continued)

WORLD AERONAUTICAL - UNITED STATES

	WAC 62	June 16, 1964
	WAC 63	July 7, 1964
	WAC 64	Aug. 24, 1964
→	WAC 76	Oct. 1, 1964
→	WAC 77	Oct. 2, 1964
→	WAC 78	Oct. 26, 1964
	WAC 117	May 6, 1964
	WAC 118	June 3, 1964
	WAC 119	July 8, 1964
	WAC 135	July 9, 1964
	WAC 136	Aug. 3, 1964
	WAC 137	Aug. 7, 1964
	WAC 138	Mar. 17, 1964
	WAC 139	Mar. 3, 1964
	WAC 186	Mar. 17, 1964
	WAC 190	July 6, 1964
	WAC 191	Aug. 5, 1964
	WAC 192	Aug. 19, 1964
	WAC 193	Aug. 10, 1964
	WAC 215	Jan. 20, 1964
	WAC 216	Aug. 31, 1964
	WAC 217	Aug. 28, 1964
	WAC 218	Apr. 6, 1964
	WAC 219	Apr. 2, 1964
	WAC 262	Apr. 27, 1964
	WAC 263	Apr. 21, 1964
	WAC 264	Apr. 15, 1964
	WAC 265	Sept. 25, 1964
	WAC 266	Oct. 2, 1964
*	WAC 267	Oct. 30, 1963
	WAC 268	Mar. 18, 1964
	WAC 269	Aug. 26, 1964
	WAC 304	Jan. 21, 1964
	WAC 305	Sept. 4, 1964
→	WAC 306	Oct. 5, 1964
→	WAC 307	Oct. 7, 1964
*	WAC 308	Nov. 4, 1963
	WAC 309	Dec. 3, 1963
	WAC 310	Dec. 5, 1963
	WAC 357	May 8, 1964
	WAC 358	May 20, 1964
*	WAC 359	Oct. 29, 1963
→	WAC 360	Oct. 27,
→	WAC 361	Oct. 27,
	WAC 362	July 25,
	WAC 363	Aug. 3,
	WAC 364	Jan. 23,
	WAC 404	July 29,
	WAC 405	Feb. 14,
	WAC 406	Aug. 12,
	WAC 407	Mar. 6,
	WAC 408	June 15,
	WAC 409	June 26,
	WAC 410	June 26,
	WAC 466	May 27,
	WAC 467	June 8,
	WAC 468	Dec. 19,
	WAC 469	Jan. 6,
	WAC 470	Feb. 5,
	WAC 471	Apr. 3,
	WAC 522	Jan. 8,
	WAC 525	June 1,

JET NAVIGATION

JN 29	United States Northwest	Apr. 3, 1964
JN 30	United States Northeast	Mar. 2, 1964
JN 44	United States Southwest	Feb. 3,
JN 45	United States Southeast	Jan. 2,

PLANNING

	AP 9	Nov. 6, 1963
*	AERONAUTICAL CATALOG	Aug. 1964

AIRCRAFT POSITION

3071	North Atlantic	Oct. 12,
3073	Caribbean Sea	Aug. 10,
3087	Central Pacific	Sept. 12,
3094	North Pacific	Aug. 15,
3096	United States-Honolulu	June 10,
* 3097	North America-Europe	June 4,

† DISCONTINUED

→ New Edition published. Obsoletes Chart of Earlier date.

* New Edition will be published in about one month.

US COMM-CGS-DC-

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		ALABAMA			
127	Auburn (Auburn-Opelika)	1-16-65 (1)	•		
23	Dothan (Napier Fld)	12-25-64 (1)*			
77	Fort Rucker (Cairns AAF)	1-16-65R6	1-16-65 (1)	1-16-65R6	
		1-16-65R24	1-16-65 (2)		
			1-16-65 (3)		
67	Mobile (Bates Fld.)	1-1-65 (1)	1-16-65 (1)	1-16-65R14	
72	Montgomery (Dannelly)		1-23-65 (1)	1-23-65R9	
87	Tuscaloosa (Van DeGraaff)	1-16-65 (1)			
		ALASKA			
188	Annette Island (FAA)	12-25-64R12	12-25-64 (2)		
220	Gulkana				1-16-65
118	Kotzebue (Ralph Wien Mem)		1-1-65 (1)		
		ARKANSAS			
303	Flippin	1-9-65 (1)			
		CALIFORNIA			
37	Los Angeles (Intnl)	1-23-65R25R	1-23-65 (1)	1-23-65R25L	
				1-23-65R25R	
10	Palmdale (AF Plant No. 42)	1-23-65R22			
123	Santa Monica	1-1-65R3			
		1-1-65Rad-041			
36	Santa Rosa (Sonoma Co.)	1-15-65R32*			
203	Upland (Cable)	1-15-65 (1)			
		COLORADO			
14	Denver (Stapleton Intnl)			1-2-65R8R (BC)	
				1-2-65R17 (BC)	
		CONNECTICUT			
250	Willimantic (Windham)	1-22-65 (1)			
		FLORIDA			
361	Crestview (Bob Sikes)	1-16-65DME (1)*			
17	Jacksonville (Imeson)	12-25-64 (1)	12-25-64 (2)		
		1-30-65DME (1)*			
		1-30-65DME (2)*			
57	Miami (Intnl)		1-23-65 (1)	1-23-65R27L	
155	Ocala (Mun. Jim Taylor)	1-9-65DME (1)			
15	Orlando (Herndon)	1-30-65DME (1)	1-9-65 (1)	1-9-65R7	
		1-30-65DME (2)			
232	Pahokee (Palm Beach Co. Glades)	1-9-65R17			
16	Tampa (Intnl)		1-30-65 (1)	1-30-65R18L	

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		GEORGIA			
27	Augusta (Bush Fld.)	1-9-65 (1)	1-1-65(1) 1-9-65 (2)	1-1-65R35	
28	" (Daniel Fld.)	1-1-65 (1)			
636	Columbus (Muscogee Co.)	1-22-65 (1)	1-22-65 (1)	1-22-65R5	
243	Macon		12-25-64 (1)	12-25-64R5	
5262	Toccoa	1-16-65 (1)*			
		HAWAII			
756	Hilo (General Lyman)	1-22-65 (1)			1-22-65 (1)
762	Kahului, Maui (Kahului)		1-30-65 (1)	1-30-65R2	
759	Kaunakakai, Molokai	1-9-65 (1)*			
777	Lanai City	1-1-65 (1)			
		ILLINOIS			
166	Chicago (O'Hare Intnl)	1-15-65R4 1-15-65R22	1-30-65 (1) 1-30-65 (2) 1-30-65 (3) 1-30-65 (4) 1-30-65 (5)	1-15-65-Para-11e1R14R&L 1-15-65 NOTES 1-30-65R14R 1-30-65R14L 1-30-65R27 1-30-65R32L 1-30-65R32R (BC)	
5028	Chicago (Pal-Waukee)	1-30-65 (1)			
211	Joliet	12-25-64 (1)			
5180	Mattoon-Charleston (Coles County Mem.)		1-22-65 (1)		
		INDIANA			
156	Fort Wayne (Baer Fld.)	1-1-65R9 1-1-65R4 1-1-65R13	1-1-65 (1) 1-1-65 (2) 1-22-65 (1)	1-1-65R31 1-1-65R13 (BC) 1-22-65R31	
5252	Lafayette (Halsmer)	1-16-65DME (1)			
399	South Bend (St. Joseph County)	1-8-65 (1)	1-8-65 (1)	1-8-65R27 1-8-65R9 (BC)	
220	West Lafayette (Purdue Univ.)	1-30-65 (1) 1-30-65 (2)			
		IOWA			
970	Keokuk		1-1-65		
395	Sioux City	1-16-65 (1) 1-16-65 DME (2)	1-16-65 (1) 1-16-65 (2)	1-16-65R13 (BC) 1-16-65R31	
		KANSAS			
495	Independence		1-15-65 (1)*		

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		KENTUCKY			
5210	Campbellsville (Taylor County)		1-22-65 (1)		
655	Covington (Grtr. Cincinnati)	1-30-65 (1)	1-30-65 (1)	1-30-65R36	
		1-30-65 (2)	1-30-65 (2)	1-30-65R18	
				1-30-65R18 (BC)	
				1-30-65R36(BC)	
		LOUISIANA			
509	New Orleans (Moisant)			1-16-65R10*	
				1-16-65R28 (BC)*	
392	Shreveport (Downtown)	1-23-65R14			12-25-64
		12-25-64 (1)			
		MAINE			
750	Auburn (Lewiston Mun.)		12-25-64 (1)*		
29	Augusta (State)	1-9-65R17			
		1-9-65R35			
		MARYLAND			
555	Aberdeen (Phillips AAF)		1-2-65 (1)*		
		MASSACHUSETTS			
58	Boston (Logan Intnl)	1-16-65R33*			
995	Orange	1-15-65 (1)			
		MICHIGAN			
41	Battle Creek (W.K. Kellogg Regional Airfield)	12-25-64R31		12-25-64R4 (BC)	
5259	Coldwater (Branch Co. Mem)		1-2-65 (1)*		
119	Detroit (Metro. Wayne Co.)		12-26-64 (2)	12-26-64R21R	
467	Detroit (Willow Run)	12-25-64R5R	12-25-64 (2)	12-25-64R23R&L (BC)	
		12-25-64R23L			
		12-25-64R27L			
518	Flint (Bishop)	1-30-65R9			
		1-30-65R27			
5260	Fremont	1-30-65 (1)*			
361	Jackson (Reynolds)	1-2-65R13			
		1-2-65R31			
5052	Pontiac	1-16-65 (1)			
		1-16-65 (2)			
		MINNESOTA			
125	Duluth (Intnl)	1-30-65DME (1)	1-9-65 (1)	1-9-65R9	
		1-30-65 (1)		1-30-65R27 (BC)	
264	Minneapolis (St. Paul Intnl)		1-9-65 (2)	1-9-65R4	
		MISSISSIPPI			
5185	Laurel	1-22-65R13			
254	Meridian (Key Field)	1-22-65 (1)			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		MISSOURI			
88	Columbia	1-9-65R17 1-9-65R35			
878	Malden	1-1-65 (1)			
		NEBRASKA			
974	Norfolk (Karl Stefan)	1-22-65R31			
304	Omaha (Eppley Fld.)	1-23-65 (1)* 1-23-65DME (1)	1-23-65 (1)	1-23-65R14 1-23-65R32 (BC)	
		NEW JERSEY			
5255	Pitman	1-15-65 (1)			
5253	Vineland (Rudy's)	1-15-65 (1)			
5074	Vineland (Downstown)	1-15-65R2			
		NEW MEXICO			
355	Roswell	12-25-65 (1) 12-25-64 (2)			
		NEW YORK			
10	Albany (County)	1-9-65R1 1-9-65R19 1-22-65DME (1) 1-22-65DME (2) 1-22-65DME (3) 1-22-65DME (4)	1-9-65 (1)	1-9-65R19 1-9-65R1 (BC)	
5161	Deer Park	1-22-65 (1)			
731	Jamestown	1-1-65 (1)			
5264	Montgomery (Orange Co.)	1-23-65 (1)*			
610	New York (John F. Kennedy Intnl)	12-25-64R4L&R 12-25-64R22R&L 12-25-64R13L&R 12-25-64R25L 12-25-64R31R 12-25-64RAD-105 12-25-64RAD-141 12-25-64DME (1) 12-25-64DME (2)	12-25-64 (2) 12-25-64 (3)	12-25-64R22L 12-25-64R31R	
666	Watertown	12-25-64 (1)			
		NORTH CAROLINA			
516	Raleigh (Durham)	1-23-65R5 1-23-65R23	1-23-65 (1) 1-23-65 (2)	1-23-65R5 1-23-65R23 (BC)	
459	Wilmington (New Hanover Co.)	12-25-64 (1)	12-25-64 (1)	12-25-64R34	
		NORTH DAKOTA			
5173	Williston (Sloulin Fld. Intnl)	1-22-65 (1)			
		OHIO			
84	Cleveland (Hopkins)			12-25-64R5R	
5204	Hamilton		1-8-65 (1)*		

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		OKLAHOMA			
5140	Duncan (Halliburton Fld.)	1-9-65 (1)			
163	Gage	1-1-65 (1)			
		OREGON			
140	Eugene (Mahlon Sweet)	1-22-65R16	1-22-65 (1)	1-22-65R16	1-22-65
		PENNSYLVANIA			
15	Allentown (Bethlehem-Easton)		12-25-64 (1)	12-25-64R6	
528	Philadelphia (North)	1-9-65R6 1-9-65R24			
326	Pittsburgh (Allegheny Co.)	1-23-65 (1)	1-23-65 (1) 1-23-65 (3)	1-23-65R27	
570	Pittsburgh (Greater)	1-23-65DME (1) 1-23-65R32	1-23-65 (1) 1-23-65 (2) 1-23-65 (4)	1-23-65R28L 1-23-65R10R (BC) 1-23-65R10L	
		RHODE ISLAND			
5256	Smithfield (North Central State)	1-22-65 (1)			
		SOUTH CAROLINA			
76	Charleston (AFB/ Mun.)	1-8-65DME (1) 1-8-65DME (2) 1-8-65DME (3) 1-8-65DME (4)	1-8-65 (1)	1-8-65R15	
401	Spartanburg (Downtown Mem.)	12-25-64 (1) 12-25-64DME - R35	12-25-64 (2)		
		SOUTH DAKOTA			
642	Aberdeen	1-30-65 (1)			1-30-65
		TENNESSEE			
253	Memphis (Metropolitan)	12-25-64 (1)	12-25-64 (1)	12-25-64R9 12-25-64R27 (BC)	
		TEXAS			
30	Austin (Mueller)	1-16-65 (1)	1-16-65 (1)	1-16-65R12R (BC) 1-16-65R30L	
198	Houston (Intnl)	1-16-65DME (1) 1-16-65DME (2) 1-16-65DME (3) 1-16-65DME (4)	1-16-65 (4)	1-16-65R21 (BC)	
807	Longview (Gregg Co.)	1-23-65 (1)	1-23-65 (1)	1-23-65 R13	
369	San Antonio (Intnl)	12-25-64 (2) 12-25-64 (1)	12-25-64 (1) 12-25-64 (2) 12-25-64 (3)	12-25-64R3 12-25-64R12 12-25-64R21 (BC)	
		VERMONT			
968	Rutland		1-9-65 (1)		
5057	Springfield (Hartness)		1-1-65 (1)		

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		VIRGINIA			
499	Lynchburg (Preston Glenn)	1-30-65 (1) 1-30-65DME (1)*	1-30-65 (1)	1-30-65R3	
		WASHINGTON			
641	Wenatchee (Pangborn)	1-15-65 (1)			
		WEST VIRGINIA			
479	Morgantown	12-25-64 (1)	12-25-64 (1)		
		WISCONSIN			
5121	Racine (Horlick-Racine)		1-15-65 (2)		
		VIRGIN ISLANDS			
5005	Charlotte Amalie, St. Thomas (Harry S. Truman)	1-22-65 (1)			
5008	Christiansted, St. Croix, (Alexander Hamilton)	1-1-65 (1)*			
		RADAR			
	Radar Pages 1 thru 18	1-22-65			

*NEW CHART

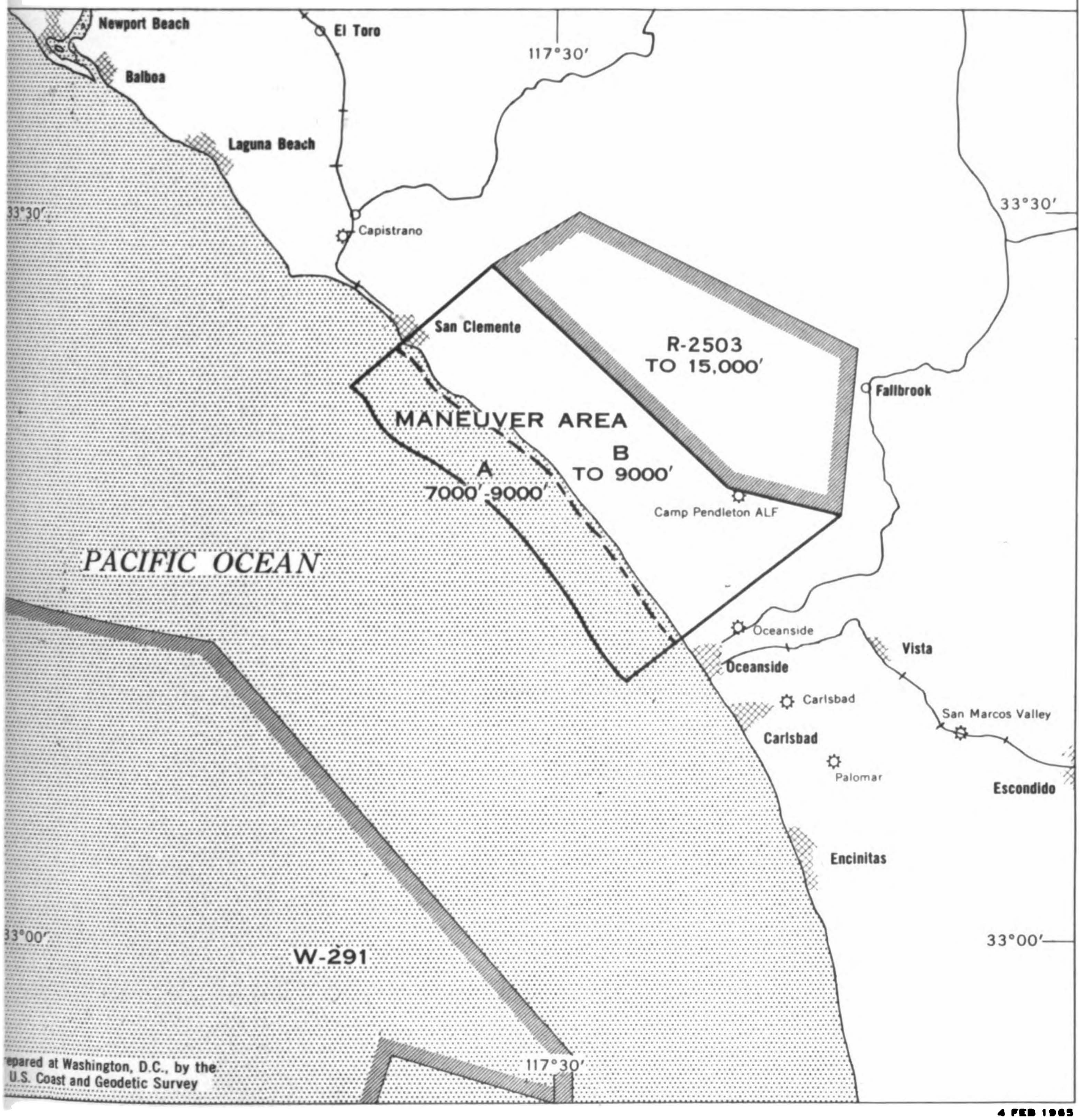
SPECIAL NOTICE

CALIFORNIA

OCEANSIDE

•SILVER LANCE MILITARY EXERCISE

Maneuvers, ***including air support to Marine Corps landing exercises are being conducted in*** the ***charted area. Pilots should contact Oceanside, San Diego, Thermal, Long Beach, Ontario*** and ***Los Angeles FSS for information pertaining to air activity during daylight hours on the*** maneuver ***dates.,*** **Feb. 23 - Mar. 12, 1965**



4 FEB 1965

AIRMAN'S INFORMATION MANUAL

FLIGHT DATA AND SPECIAL OPERATIONS

SECTION III

EFFECTIVE 0501 Z **4 MARCH 1965**

To 0501 Z **1 APRIL 1965**

FEDERAL AVIATION AGENCY

AIRMAN'S INFORMATION MANUAL

INTRODUCTION

This Airman's Information Manual (AIM) has been developed by the Federal Aviation Agency as a pilot's operational manual replacing the Airman's Guide, Directory of Airports and Seaplane Bases, and the Flight Information Manual within the conterminous United States. The existing Alaska Airman's Guide and Chart Supplement and the Pacific Airman's Guide and Chart Supplement will continue to be published every 28 days.

The new AIM presents, in a single document, all information necessary for the planning and conduct of a flight in the National Airspace System. The content and format reflect user identified requirements and provide a "one package" approach.

The manual is divided into six sections, each composed of a specific category or family of information, fashioned into a format consistent with the operational needs of aviation. In contradistinction to previous flight information publications issued by FAA, the design concept of the AIM has provided for consolidation of similar information, segregation of air traffic control procedural information and its sequencing according to operational use, and the elimination of administrative and non-essential data.

The AIM is designed to be carried in the cockpit and may be used collectively or independently by sections. The manual is published as loose-leaf pages, and is three-hole punched to fit a standard three-ring binder.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line.

Each section of the AIM will be published at varying intervals during the year, depending on the stability or frequency or change of the information.

The various sections and the revision cycle of each are:

Section I	Basic Flight Manual	Semi-annually
Section II	ATC Operations and Procedures	Quarterly
Section III	Flight Data and Special Operations	Every 28 days
Section III-A	Notices to Airmen	Every 14 days
Section IV	Airport Directory	Semi-annually
Section IV-A	Airport/Facility Directory	Every 28 days

The above schedule provides a completely new manual every 6 months.

The revision cycle of Sections III and IV-A is every 28 days, the same as the IFR Enroute charts. Since the charts contains basically enroute information, the AIM serves as a supplementary publication, providing information for planning and terminal operations. Therefore, radio navigation aids are on the charts and unlike the Airman's Guide, are not tabulated in the AIM. Every effort has been made to minimize and eliminate duplication of information within publicatons and between publications and charts.

A brief description of the contents of each section in the AIM follows.

Section I—Basic Flight Manual

This section contains information of an instructional, educational, and training nature, assembled and presented in a systematic format, categorized by subject matter. The novice pilot, as well as the more experienced pilot will find here the basic fundamentals of knowledge for operating in the National Airspace System, information on adverse factors affecting safety of flight and health, and a list of available publications of general operational interest.

Section II—ATC Operations and Procedures

Section II is designed to serve as an official means of disseminating pertinent ATC information of interest to all pilots. The information governing flight operations, air traffic services, and procedures is presented in layman's language and avoids ambiguities which often result from individual interpretations of rules. Data is seqeunced in accordance with typical flight operations: Preflight, departure, enroute, arrival and landing procedures. In addition, supporting general procedures and information such as ADIZ, and SCATER procedures is included. Emergency procedures are combined and published at the end of the section.

Section III—Flight Data and Special Operations

Operational data most subject to change and which is not appropriate for inclusion within other sections of the AIM is carried in Section III. Because it contains critical flight data most subject to change, this section should be kept close at hand in the event of a divergence in enroute flight. Some of the most significant material contained in Section III is described below.

A glossary or explanation of aeronautical term or phrases used in the AIM, and a list of commonly used abbreviations.

Special Notices of pertinent current information of operational value for both preflight planning and enroute operations. These Special Notices are divided into three categories: General Notices—those of a general nature with universal application; Area Notices—those pertinent to a specific geographical area; and Regulatory Notices—these are condensations of changes to or new rules, parts, Advisory Circulars, Special Procedures and other regulatory matters of operational interest.

A Visual Navigation Chart Bulletin, as a means of updating the Sectional Charts, providing a cumulative tabulation of the major changes in aeronautical information occurring since the last chart publication date.

Detailed description tabulations and charts of Special Operations such as Oil Burner Routes and military refueling tracks.

Section III—A—Notices to Airmen

This section serves as a supplement, issued every fourteen days, to the AIM and provides operationally required data pertinent to the continuous NOTAMs carried in the daily teletypewriter NOTAM Summary (NOSUM), revisions to Oil Burner routes, and those airman advisories deemed essential to the safe conduct of flight.

Sections IV and IV–A—Airport Directory

Within Sections IV and IV–A there are provided an Airport Directory, a tabulation of ARTCC communications, frequencies, and a tabulation of Flight Service Stations.

Section IV contains the Airport Directory which is a listing of all known airports, heliports, and seaplane bases available for transient civil use within the conterminous United States, and indicates those airport services and facilities available at each. The seaplane tabulation and the heliport tabulation follow the airport tabulation. Military airports and privately owned and operated airports closed to civil aviation are not listed.

Section IV–A contains an Airport/Facility Directory providing an integrated tabulation of major airports, heliports and seaplane bases which have terminal navaids and communications facilities available at the airport. This tabulation combines all facilities and services available at each airport (heliport or seaplane base) or terminal area into a single listing.

In both Sections IV and IV–A, airports are listed alphabetically by geographical location (city or town) within each state. Airports tabulated in IV–A are cross-referenced in Section IV.

In Section IV–A, the Airport/Facility Directory is followed by the tabulation of all ARTC Center VHF communications frequencies. This, in turn, is followed by the tabulation of FSS's, which shows their telephone numbers, the number of the associated Weather Bureau Office, and other pertinent data.

The Master Alphabetical Index of the entire Manual is provided in this Section. This complete and comprehensive index lists all items of information, cross referenced

under all headings to which reference might reasonably be made, giving section and page number. Within the index, any reference involving emergency actions or procedures is printed in bold-face type.

Errors, Omissions, or Suggested Changes

Errors, omissions, or suggested changes should be forwarded to the Federal Aviation Agency, Air Traffic Service, Attention AT-600, Washington, D.C. 20553. Airport managers, operators and owners are urged to review data for their airport and report any errors or omissions to FAA at the address given above.

Procurement

● The Airman's Information Manual is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

INTRODUCTION

Section III—FLIGHT DATA AND SPECIAL OPERATIONS

Section III is published every 28 days and contains operational flight data most subject to continuous change that is not appropriate for inclusion within other sections of the Manual. Because it contains such critical flight data, this section should be kept close at hand in the event of a divergence in en route flight.

The information in Section III is presented in various tabulations or grouping arrangements appropriate to the specific items. Typical examples are: Preferred Routes, VOR Receiver Check Points, Parachute Jumping Areas, and Substitute Route Structures.

As a means of updating the Sectional Charts produced by the Coast and Geodetic Survey, Department of Commerce, a Sectional Chart Bulletin is included in Section III. This bulletin provides a cumulative tabulation of the major changes in aeronautical information that have occurred since the last publicaton date (normally every 6 months) of each sectional chart. Only those changes to controlled airspace and special use airspace, airports, and radio navigation facilities that present a hazardous condition or impose a restriction on the pilot are listed, thereby continually providing the VFR pilot with the essential data for keeping his sectional charts current until they are reissued.

At the end of Section III are grouped detailed tabulations and charts of special operations and areas such as Oil Burner Routes, and military low altitude refueling tracks. This arrangement provides a consolidated presentation of areas and special operations that are not designated through rule-making procedures.

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GLOSSARY OF AERONAUTICAL TERMS

I DEFENSE IDENTIFICATION ZONE (ADIZ)—The area of air-ace over land or water within which the ready identi-ation, the location, and the control of aircraft are re-ired in the interest of national security. For operat-: details see ADIZ procedures.

IPORT ADVISORY AREA—The area within five statute les of an uncontrolled airport on which is located a ght Service Station so depicted on the appropriate tional Aeronautical Chart.

IPORT ADVISORY SERVICE—A service provided by a Flight vice Station to enhance the safety of terminal oper-ons of airports where a station is operating but where re is no control tower.

IPORT SURFACE DETECTION EQUIPMENT (ASDE)—Radar ipment specifically designed to detect all principal tures on the surface of an airport, including vehicular ffic, and to present the entire picture on a radar indi-or console in the control tower. ASDE has a maxi-m range of four miles, though its 16 inch diameter pe usually displays an area of only one mile radius ut the control tower.

IPORT SURVEILLANCE RADAR (ASR)—Radar providing posi-n of aircraft by azimuth and range data without ele-ion data. It is designed for a range of 50 miles.

IPORT TRAFFIC AREA—The airspace within a circular it defined by a five statute mile horizontal radius m the geographical center of an airport at which an rative airport traffic control tower is located and ex-ding upwards from the surface to, but not including, 0 feet above the surface.

ROUTE SURVEILLANCE RADAR (ARSR)—Long range radar ich increases the capability of ATC for handling heavy route traffic. An ARSR site is usually located at some tance from the ARTCC it serves.

ROUTE TRAFFIC CONTROL CENTER (ARTCC)—A facility ablished to provide traffic control service to Instru-nt Flight Rules (IFR) flights operating within con-lled airspace and principally during the en route se of flight.

ITUDE RESERVATION (ALTRV)—Airspace utilization under scribed conditions, normally employed for the mass vement of aircraft or other special user requirements ich cannot otherwise be accomplished. ALTRV's are roved by the appropriate FAA facility.

ROACH CONTROL SERVICE—Air traffic control service, vided by a terminal area traffic control facility, for iving and or departing IFR flights and, on occasion, R flights.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)—The continuous broadcast of recorded noncontrol information in selected high activity terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information.

CARDINAL ALTITUDES OR FLIGHT LEVELS—"Odd" or "even" thousand-foot altitudes or flight levels. Examples: 5000, 6000, 7000, FL 250, FL 260, FL 270.

CEILING—The height above the ground or water of the lowest layer of clouds or obscuration phenomena that is reported as "broken," "overcast," or "obscuration" and not classified as "thin" or "partial."

CENTRAL ALTITUDE RESERVATION FACILITY (CARF)—An Air Traffic Service facility established to conduct the volume of coordination, planning and approval of special user requirements under the altitude reservation concept.

CONSOLAN—A low frequency, long-distance navaid used principally for transoceanic navigation.

CONTERMINOUS U.S.—Forty-eight states and the District of Columbia.

CONTINENTAL CONTROL AREA—The area, which includes that airspace within the conterminous United States at and above 14,500 feet MSL, excluding airspace less than 1,500 feet above terrain, and prohibited and restricted areas (except certain specified restricted areas).

CONTINENTAL U.S.—Forty-nine states. The original 48 states and Alaska.

CONTROL AREA—Controlled airspace extending upwards from a specified height above the surface of the earth. Unless otherwise provided in appropriate cases, control areas extend upward from 700 feet above the surface until designated from 1,200 feet above the surface or from at least 500 feet below the MEA, whichever is higher, to the base of the continental control area.

CONTROL ZONE—Controlled airspace extending upwards from the surface of the earth. Control zones may include one or more airports and are normally circular areas 5 statute miles in radius with extension where necessary to include instrument approach and departure paths.

CRUISE—The term "cruise" used instead of "maintain" in an ATC clearance indicates that descent from cruising altitude may be commenced at pilot's discretion without further clearance from ATC. "Cruise" is normally used only on relatively short flights in uncongested areas, and is authorization for the flight to proceed to, and make an approach at, destination.

DISCRETE FREQUENCY—A frequency assigned a particular function.

EXPECTED APPROACH CLEARANCE TIME (EAC)—The time at which it is expected that an arriving aircraft will be cleared to commence approach for a landing.

FINAL APPROACH—IFR—The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, commencing at the point of interception of said course and extending to the airport or the point where circling for landing or missed approach is executed.

FINAL APPROACH—VFR—A flight path of a landing aircraft in the direction of landing along the extended runway center line from the base leg to the runway.

FIX—A geographical position determined visually, by reference to one or more radio navigational aids, by celestial plotting, or by another navigational device.

FLIGHT ADVISORY SERVICE—Advice and information provided by a facility to assist pilots in the safe conduct of flight.

FLIP—Flight Information Publication.

FLIGHT LEVEL (FL)—A level of constant atmospheric pressure related to a reference datum 29.92" HG. For example: Flight Level 250 is equivalent to an altimeter indication of 25,000 feet, and Flight Level 265 to 26,500 feet.

FLIGHT SERVICE STATION (FSS)—A facility operated by the FAA to provide flight assistance service.

IFR CONDITIONS—Weather conditions below the minimum prescribed for flights under VFR.

INITIAL APPROACH—Initial approaches to a facility are normally made over specified routes to the primary navigation facility. When the approach fix is not the primary navigation facility, the transition routes are specified and shown on the particular AL chart. The minimum en route altitude for the route along which the pilot has been flying is normally used as the initial approach altitude. The high level initial approach altitude is usually termed "Initial Penetration Altitude" and is considered as the altitude at which the aircraft begins a penetration. This altitude is established for each particular procedure and is indicated on the associated AL chart.

INTERROGATOR—The ground-based surveillance radar beacon transmitter-receiver which scans in synchronism with a primary radar, transmitting discrete radio signals which repetitiously request all transponders, on the mode being used, to reply. The replies received are then mixed with the primary radar video to be displayed on the same plan position indicators.

JET ROUTES—A high altitude route system, at and above 18,000 feet MSL, predicated on a network of designated high altitude VHF/UHF facilities. (For operating procedures applicable to this system see ENROUTE).

JOINT USE RESTRICTED AREA—An area wherein an aircra may operate if prior permission has been granted l either the restricted area "using agency" or the "co trolling agency." (1) The using agency organization, military command whose activity within a restrict area necessitated the area being so designated; exce that, in the case of those Restricted Area/Military Clim Corridors which do not have a designated controlli agency, the using agency is a military air traffic contr facility which may be contacted for transit through t climb corridor. The using agency notifies the controlli agency whenever permission may be granted by t controlling agency for transit of, or flight within a r stricted area. (2) The controlling agency is a designat FAA facility which may authorize transit of a restrict area.

MAINTAIN—The altitude/flight level instructions in ATC clearance normally require that a pilot "maintai the altitude/flight level at which the flight will opera when in controlled airspace. Altitude/flight lev changes while en route should be requested prior to t time the change is desired.

MAXIMUM AUTHORIZED ALTITUDE (MAA)—The highest al tude on a Federal airway, jet route, or other direct rou for which a MEA is designated in F.A.R. Part 95 which adequate reception of navigation aid signals assured.

MINIMUM CROSSING ALTITUDES (MCA)—The lowest altitud at certain radio fixes at which an aircraft must cro when proceeding in the direction of a higher minimu en route IFR altitude.

MINIMUM EN ROUTE IFR ALTITUDE (MEA)—The altitude effect between radio fixes which assures acceptable na gational signal coverage and meets obstruction clearan requirements between those fixes.

MINIMUM OBSTRUCTION CLEARANCE ALTITUDE (MOCA)—T specified altitude in effect between radio fixes on VO airways, off-airway routes on route segments, whi meets obstruction clearance requirements for the ent route segment and which assures acceptable navigation signal coverage only within 22 nautical miles of a VO

MINIMUM RECEPTION ALTITUDE (MRA)—The lowest altitu required to receive adequate signals to determine speci VOR/VORTAC/TACAN fixes.

MODE—The number or letter referring to the speci pulse spacing of the signal transmitted by an interro tor.

RADAR BEACON (SECONDARY RADAR)—A radar system which the object to be detected is fitted with cooperati equipment in the form of a radio receiver/transmitt (transponder). Radio pulses transmitted from t searching transmitter/receiver (interrogator) site a received in the cooperative equipment and used to tri ger a distinctive transmission from the transponde This latter transmission, rather than a reflected sign is then received back at the transmitter/receiver site.

DAR ADVISORY SERVICE—The provision of advice or in-mation based on radar observation.

DIAL—A radial is a magnetic bearing extending from OR, VORTAC, or TACAN.

MARY RADAR—A radar system in which a minute por-n of a radio pulse transmitted from a site is reflected an object and then received back at that site.

HIBITED AREA—Designated airspace within which the ht of aircraft is prohibited.

GET—The indication displayed on a radar scope re-ting from a primary radar return or a radar beacon ly.

NSITION AREA—An area extending upward from 1,200 t or higher above the surface when designated to plement control zones; from 700 feet above the sur-e when designated in conjunction with an airport with control zone but for which an instrument approach cedure has been prescribed; or from 1,200 feet or her above the surface when designated in conjunc-n with airway route structures or segments. Unless erwise limited, transition areas terminate at the base he overlying control area or Continental Control Area.

NSPONDER—The airborne radar beacon receiver-trans-ter which automatically receives radio signals from interrogators on the ground, and selectively replies h a specific reply pulse or pulse group only to those errogations" being received on the mode to which it et to respond.

TOR—A heading issued to the pilot for the purpose of viding navigational guidance by means of radar.

BILITY, PREVAILING—The horizontal distance at which gets of known distance are visible over at least half he horizon. It is normally determined by an observer or close to the ground viewing buildings or other ilar objects during the day and ordinary city lights night. Under low visibility conditions the observa-ns are usually made at the control tower. Visibility REPORTED IN MILES AND FRACTIONS OF LES in the Aviation Weather Report. If a single ue does not adequately describe the visibility, addi-tional information is reported in the "Remarks" section of the report.

VISIBILITY, RUNWAY—The horizontal distance at which a stationary observer near the end of the runway can see an ordinary light (about 25 candlepower) at night or a dark object against the horizon sky in the daytime. In practice the human observer is used very little for this observation. Instead runway visibility is normally determined by a transmissometer (a photoelectric device calibrated in terms of a human observer). It is REPORTED IN MILES AND FRACTIONS OF MILES in the "Remarks" section of the Aviation Weather Report. A meter in the control tower gives the FAA traffic controller a continuous indication of the runway visibility at transmissometer locations. Runway visibility, where available, is used in place of prevailing visibility for the determination of minimums on a transmissometer runway. This program is gradually being replaced by Runway Visual Range at transmissometer locations.

VISIBILITY, RUNWAY VISUAL RANGE (RVR)—An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end; it is based on the sighting of either high intensity runway lights or on the visual contrast of other targets—whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal, AND NOT SLANT, visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is REPORTED IN HUNDREDS OF FEET. At the present time, RVR observations are automatically furnished to FAA tower controllers at approximately 25 locations from readout equipment connected to the remote transmissometer installation. RVR provides an additional operating minimum at fields equipped with specified navigational aids. For example, at the present time the RVR minimum at Newark is 2000 ft. (in combination with a minimum descent altitude of 218′ MSL) for both take-offs and landings regardless of the reported ceiling and visibility.

●**VOT (VERY HIGH FREQUENCY OMNITEST)**—A ground originating test signal used to check the accurate alignment of a VOR receiver.

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

acft..... aircraft
adjt..... adjacent
admin.... administration
AGL..... above ground level
Airgi..... Airguide
AL..... Approach and Landing Chart
alt..... altitude
amdt..... amendment
ANRA.... air navigation radio aids
ant..... antenna
apch..... approach
apchg..... approaching
aprxly.... approximately
arpt..... airport
arr..... arrival/arrive
ARTCC... Air Route Traffic Control Center
ASDE..... airport surface detection equipment
ATC..... air traffic control
ATIS..... Automatic Terminal Information Service
auto..... automatic
aux..... auxiliary
avbl..... available
awy..... airway

BC..... back course
bcn..... beacon
bcst..... broadcast
bldg..... building
bndry..... boundary
brg..... bearing
btn..... between

clsd..... closed
clrnc..... clearance
cntr..... center
Co..... county
comm.... communication
comsnd... commissioned
comsng... commissioning
config..... configuration
constr.... construction
constrd... constructed
cont..... continuous/continuously
crs..... course
CS/T..... combined station/tower
ctc..... contact
ctl..... control
ctld..... controlled

dalgt..... daylight
demsnd... decommissioned
demol.... demolition
DF..... direction finder
discntd... discontinued
DME..... UHF standard (TACAN compatible) distance measuring equipment
dptg..... departing
dptr..... departure

efctv..... effective
elev..... elevation
emgcy.... emergency
eng..... engine
eqpmt.... equipment
excp..... except
extsn..... extension
extsv..... extensive

facil..... facility
flashg.... flashing
fld..... field
flt..... flight
flwg..... following
FM..... fan marker
fone..... telephone
freq..... frequency
FSS..... Flight Service Station

GCA..... ground controlled approach
gnd..... ground
GWT..... gross weight

H..... Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH..... Non-directional radio beacon (homing), power 2000 watts or more
hi-..... high-
hr..... hour
hvy..... heavy
hwy..... highway

ident..... identification
IFF..... Identification Friend from Foe
IFR..... Instrument Flihgt Rules
IFSS..... International Flight Service Station
ILS..... instrument landing system
imdtly.... immediately
inbnd..... inbound
indef..... indefinitely
info..... information
inop..... inoperative
inst..... instrument
int..... intersection
intl..... international
intsv..... intensive

J-bar..... jet runway barrier
kc..... kilocycles

lat..... latitude
lcl..... local
lclzr..... localizer
lctd..... located
lctn..... location
LFR..... Low/Medium frequency radio range
lgt..... light
lgtd..... lighted
lgtg..... lighting
LMM..... compass locator at middle marker ILS
lnd..... land
lndg..... landing
LOM..... compass locator at outer marker ILS
long..... longitude

M..... magnetic (after a bearing)
MAA..... maximum authorized altitude
mag..... magnetic
maj..... major
max..... maximum
mc..... megacycles
MCA..... minimum crossing altitude
MEA..... minimum enroute IFR altitude
meml..... memorial
MH..... Non-directional radio beacon (homing), power less than 50 watts
mi..... mile
min..... minimum or minute
MM..... middle marker ILS
MOCA.... minimum obstruction clearance altitude
mod..... modernization/modification
MRA..... minimum reception altitude
mrkd..... marked
mrkg..... marking
MSL..... mean sea level
mun..... municipal
natl..... national
navaid.... navigational aid
ngt..... night
nmi..... nautical mile/s
No..... number

obstn..... obstruction
oct..... octane
OM..... outer marker ILS
operg..... operating
opern..... operation
outbnd.... outbound

patn..... pattern
permly.... permanently
p-line..... pole line
pwr..... power

quad..... quadrant

rad..... radial
RAE..... Royal Aircraft Establishm visual glide slope indic
RAPCON.. radar approach control (US.
RATCC... radar air traff control cent (NAVY)
rbn..... radio beacon
rcv..... receive
rcvg..... receiving
rcvr..... receiver
rdo..... radio
reconstr... reconstructior
REIL..... runway end id tification lig
relctd..... relocated
rgt..... right
rng..... range
rnwy..... runway
ruf..... rough
RVR..... runway visual range
RVV..... runway visibi values

SIF..... Selective Ider fication Fe ture (of t basic Mark radar beac system)
sked..... schedule
smi..... statute mile.'s
SR..... sunrise
SS..... sunset
stn..... station
sys..... system

T..... true (after a bearing)
TACAN... UHF navigational facility—omnidirectional course and distance information
et..... tetrahedron
tc..... traffic
tof..... take-off
tmprly.... temporarily
tmpry.... temporary
trans..... transcribed
trml..... terminal
trng..... training
tsmt..... transmit
tsmtg..... transmitting
tsmtr..... transmitter
TV..... television
twr..... tower
txwy..... taxiway
UFN..... until further notice
unavbl.... unavailable
unclid ... uncontrolled
unlgtd.... unlighted
unmrkd... unmarked
VASI..... visual approach slope indicator
vcnty..... vicinity
VFR..... visual flight rules
VOR... .. VHF navigational facility—omnidirectional, course only
VOR-DME. collocated VOR navigational facility and UHF standard navigational facility and UHF standard distance measuring equipment
VORTAC.. collocated VOR and TACAN navigational facilities
VOT..... a VOR Receiver Testing Facility
vsby..... visibility
wea..... weather
WB ..... Weather Bureau
WIP..... work in progress
wt..... weight

THE NOTAM CODE

INTRODUCTION

The NOTAM Code provides for coding NOTAM information to reduce telecommunications transmission time and reduce translation difficulties in the International Service.

A NOTAM Code group contains 5 letters. The first letter is always the letter Q to indicate a code abbreviation for use in the composition of NOTAMs. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

NOTAM code significations shall be amplified or completed where necessary by adding appropriate words, contractions, frequencies, location identifiers, place names, or figures. Approved abbreviations shall be used in preference to plain language whenever possible. The information necessary to complete a NOTAM code group, as indicated by a blank space, shall be given except when (1) the blank spaces are enclosed within parentheses or brackets to indicate their completion is optional; e.g., LHX QIEIK 15 MIN. Meaning: the LaJunta Colorado airport beacon is available on request at 15 minutes' notice; or (2) an alternative meaning shown in parentheses is selected and the blank space in this alternative meaning is complete; e.g., QAPOK 116.9. Meaning: the radio range on 116.9 Mc. resumed normal operation.

Expressions or words in parentheses which do not include blank spaces have the following significances:

(1) When following a blank space, signifies the explanation of information to be used in filling the preceding blank.

(2) When following a word or expression, signifies an alternative to the word or expression.

CODE GROUP FORMATION

5-letter NOTAM code groups are formed in the following manner:

(1) First Letter.—The letter Q.

(2) Second and Third Letters.—The appropriate combination of 2 letters, selected from the "2nd and 3rd letters" section of the code, identify the facility, service or danger to aircraft in flight being reported. The *second* letter has been restricted to A, E, I, O, or U. These letters also serve to classify the aid, facility, or service described: i.e., the letters A and E signify radio aids. The letter I signifies lighting facilities. The letters O and U signify airports, search and rescue, and dangers to aircraft in flight.

(3) Fourth and Fifth Letters.—The appropriate cominbation of 2 letters, selected from the "4th and 5th Letters" section, denote the operating status of the facility, service, or danger to aircraft being reported. The *fourth* letter has been restricted to A, E, I, O, or U.

DECODE

SECOND AND THIRD LETTERS

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	RADIO AIDS		
AA	. . . [*specify TWR, APP, ACC or FIC*] air traffic services receiver . . . kc/s. (*or* . . . Mc/s.).	AY	200 Mc/s. Distance Measuring Equipment.
AB	Inner marker, Instrument Landing System.	AZ	Station location marker VHF.
AC	. . . [*specify TWR, APP, ACC or FIC*] air traffic services transmitter . . . kc/s. (*or* . . . Mc/s.).	EA	En-route Surveillance Radar.
AD	Middle marker, Instrument Landing System.	EB	Broadcasting station (public).
AE	Outer marker, Instrument Landing System.	EC	CONSOL or CONSOLAN station.
AF	Fan-type marker.	ED	DECCA or DECTRA.
AG	Glide path, Instrument Landing System.	EE	Ground Controlled Approach System (GCA).
AH	Non-directional Beacon (NDB).	EF	Terminal Area Surveillance Radar.
AI	Instrument Landing System (ILS).	EG	Gee.
AJ	Radio range (other than VOR) and associated voice communications.	EH	Elevation element of the Precision Approach Radar (PAR).
AK	Radio receiving facilities.	EI	Monitoring device associated with . . . (*specify*) radio aid.
AL	Localizer, Instrument Landing System.	EJ	All air-ground facilities (except . . .).
AM	Locator, inner, Instrument Landing System.	EK	Precision Approach Radar (PAR).
AN	TACAN.	EL	LORAN.
AO	Locator, outers, Instrument Landing System.	EM	Azimuth element of the Precision Approach Radar (PAR).
AP	VOR (VHF Omnidirectional Radio Range) and associated voice communications.	EN	DME (1000 Mc/s. Distance Measuring Equipment).
AQ	VOR (VHF Omnidirectional Radio Range).	EO	Beam Approach Beacon System (BABS).
AR	Radio range (other than VOR).	EP	Radar responder beacon.
AS	Radio range leg.	EQ	Surveillance Radar Element (SRE) of GCA.
AT	Attentional signal.	ER	Radio transmitting facilities.
AU	Meteorological communications . . . kc/s. (*or* . . . Mc/s.).	ES	All radio-navigation facilities (except . . .).
AV	Voice communications . . . kc/s. (*or* . . . Mc/s.).	ET	Teletypewriter transmitting facility (ies).
AW	Unassigned.	EU	Radio direction-finding station . . . (*frequency or type*).
AX	Non-directional Beacon (NDB) and voice facility.	EV	VORTAC (the combination of VOR and TACAN).
		EW	Ground interrogator, SSR system.
		EX	Unassigned.
		EY	Ground movement radar.
		EZ	Unassigned.
	LIGHTING FACILITIES		
IA	Boundary lights.	ID	Channel lights.
IB	Aerodrome beacon.	IE	Light beacon.
IC	Unassigned.	IF	Floodlights.

DECODE

SECOND AND THIRD LETTERS (Contd.)

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	LIGHTING FACILITIES (Contd.)		
IG	Angle-of-approach lights.	IP	Approach light system [type . . . {*specify LSA (low intensity) or LSB (high intensity*}] (for runway number . . .).
IH	Taxiway lights.		
II	Hazard beacon.		
IJ	Threshold lights (for runway number . . .).	IQ	Runway alignment beacon.
IK	Flares.	IR	Runway lights [type . . . {*specify LSA (low intensity) or LSB (high intensity)* }] (for runway number . . .).
IL	All landing area lighting facilities.		
IM	Identification beacon.	IS	Strip lights [for strip . . . (*number or magnetic direction*)].
IN	Unassigned.	IT–IY	Unassigned.
IO	Obstruction lights.	IZ	Airway course lights.

	AERODROMES — SEARCH AND RESCUE — DANGERS TO AIRCRAFT IN FLIGHT		
OA	Land aerodrome.	UB	Mooring buoys.
OB	Beaching facilities.	UC	Unassigned.
OC	Water aerodrome.	UD	Prohibited, restricted or danger area designated as . . . (*name or reference identification*).
OD	Meteorological forecast service.		
OE	Meteorological observation service.		
OF	Meteorological watch service.	UE	Aircraft.
OG	Runway arresting gear.	UF	Fixed balloons.
OH	Helicopter landing area.	UG	Bombing or aerial depth charge dropping.
OI–OL	Unassigned.		
OM	All runways [except number(s) . . .].	UH	Air exercises (*or* flying displays).
ON	Stopway for runway number.	UI	Gun or missile firing.
OO	Taxiway(s).	UJ	Glider flying.
OP	Rescue vessel.	UK	Demolition of explosives.
OQ	Ocean Station Vessel.	UL	Landing direction indicator.
OR	Refueling [. . . type fuel(s) *or* . . . octane].	UM	Mooring and docking facilities.
		UN	Parachute jumping exercises.
OS	Search and rescue aircraft [*specify VLR, LRG, MRG, SRG or HEL*].	UO–UP	Unassigned.
		UQ	Apron.
OT	Crash and fire fighting facilities.	UR	Runway(s) and number(s).
OU	Unassigned	US	Strip . . . (*number or magnetic direction*).
OV	. . . [*specify TWR, APP, ACC or FIC*] air traffic service.	UT	Grass landing area.
		UU	Unassigned.
		UV	Fog dispersal equipment.
OW–OY	Unassigned.	UW–UY	Unassigned.
OZ	Warship.	UZ	Runway threshold (number . . .).
UA	Alighting area.		

DECODE

FOURTH AND FIFTH LETTERS

4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES
AA	Unassigned.
AB	Usable for length of . . . and width of . . .
AC	Covered by snow to a depth of . . . NOTE.—*This snow is not compacted.*
AD	Cleared of soft snow, full length and width.
AE	Totally free of snow and ice.
AF	Covered by [. . . (*type*)] ice to a depth of . . .
AG–AH	Unassigned.
AI	Operating without tone modulation.
AJ	Operating without coding.
AK	Covered by compacted snow to a depth of . . .
AL	Operating on reduced power.
AM	Snow clearance in progress [estimated time of completion is . . . (*date/time*)].
AN	Grass cutting in progress [estimated time of completion is . . . (*date/time*)].
AO	Marked by . . .
AP	Work is in progress [estimated time of completion is . . . (*date/time*)].
AQ	Work completed.
AR	Snow clearance completed.
AS	Grass cutting completed.
AT	Sanding is in progress [estimated time of completion is . . . (*date/time*)].
AU	Appears unreliable.
AV	Covered by ice patches.
AW	Height of snowbanks is . . . (*figures and units*).
AX	Braking action is . . . (A = *good*, B = *medium*, C = *poor*).*
AY	Are to avoid area, radius of danger being . . . (about the point . . .).
AZ	Will take place from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] (on the days of . . . between the hours of . . . and . . .) at . . . (*location*) (within the sector of . . . and a radius of . . .) at . . . height above . . . (*datum*).
EA	Unassigned.
EB	Location change to . . . effective . . . (*date/time*).
EC	Characteristics *or* identification *or* radio call sign changed to . . .
ED	Operating frequency(ies) will be changed to . . . kc/s. (*or* . . . Mc/s.) effective . . . (*date/time*).
EE–EG	Unassigned.
EH	Not heard.
EI–EL	Unassigned.
EM	Military operations only.
EN	Not available due to . . . (*specify reason*) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
EO	Unassigned.
EP	Available on prior permission (of . . .) only.
EQ–ER	Unassigned.
ES	Out of service from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] due to the following condition(s) . . .
ET	Test operation only. NOT for operational use.
EU–EV	Unassigned.
EW	Completely withdrawn.
EX	Unassigned.
EY	Is outside the limits of its assigned ocean station.
EZ	Is within the limits of its assigned ocean station.
IA–IB	Unassigned.
IC	Report of apparent unreliability or track displacement hereby is cancelled.
ID	Available on request to . . .
IE	Unassigned.
IF	Flight checked and found reliable.
IG–IJ	Unassigned.
IK	Available on request (to . . .) immediately [*or* at . . . (*time period*) notice].
IL	Hours of service are now . . .
IM	Unassigned.
IN	Operative (*or* re-operative), activated (*or* re-activated) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IO	Operating normally.

DECODE

FOURTH AND FIFTH LETTERS (Contd.)

4th & 5th Letters	SIGNIFICATION
HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES (Contd.)	
IP	Track(s) reported to be displaced (. . . degrees) (. . . direction) of published bearing(s), other tracks probably have shifted.
IQ	To be used as radio beacon only.
IR	Magnetic track(s) towards station is are now . . . [will be . . . at . . . (*date/time*)].
IS	Operative (or *re*-operative) subject to conditions/limitations already published.
IT	Aircraft restricted to runways and taxiways.
IU	Unserviceable for aircraft heavier than . . . tons.
IV	Unsafe from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IW–IZ	Unassigned.
OA–OF	Unassigned.
OG	Operative but ground checked only, awaiting flight check.
OH–OJ	Unassigned.
OK	Resumed normal operation.
OL	Track(s) ground checked, approved for instrument flying.
OM	Shut down for maintenance from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)]—disregard all signals.
ON–OQ	Unassigned.
OR	Previously promulgated shutdown has been cancelled.
OS	Unassigned.
OT	New facility in operation.
OU	Operating without interruption for voice transmissions from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
OV–OW	Unassigned.
OX	Exercising at . . . (*date/time, location and height above the specified datum*).
OY–OZ	Unassigned.
UA	Closed to all operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UB–UC	Unassigned.
UD	Closed to all night operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UE	Unassigned.
UF	Closed for an unknown duration due to flood.
UG	Closed for an unknown duration [*or* until . . . (*date/time*)] due to ice or snow.
UH	Closed for an unknown duration [*or* until . . . (*date/time*)] due to thaw.
UI	Closed from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] for maintenance.
UJ–UL	Unassigned.
UM	Operating in an unmonitored status.
UN–US	Unassigned.
UT	Operative but caution advised due to following condition(s) . . .
UU	Suitable for . . . (*specify*) equipped aircraft only.
UV	Covered by slush to a depth of . . .
UW	Covered by water to a depth of . . .
UX–UZ	Unassigned.

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

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- ☐ Section I, Basic Flight Manual
- ☐ Section II, ATC Operations and Procedures
- ☐ Section III, Flight Data and Special Operations
- ☐ Section III-A, Notices to Airmen
- ☐ Section IV, Airport Directory
- ☐ Section IV-A, Airport/Facility Directory

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PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Headland Mun Arpt: 1 mi E. 1200 LST to sunset. Sundays. Up to 12,000′.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Up to 12,000′.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Fayetteville: 1 mi NNW Razorback Arpt. Mon thru Sat 2200GMT–sunset. Suns and holidays 1400 GMT– sunset.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

Marion: 1 nmi W. 1500Z–SS, Sat and Sun. Up to 13,000′ MSL.

CALIFORNIA

Irvin: 1½ mi SW. 0800–SS Sat and Suns. Up to 15,000′ MSL.

Jovenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000′.

Black Point: Sky diving weekends up to 12,500′.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500′ MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clear Lake: Into Clear Lake at 39°05′N, 122°51′W. Mon thru Sat. Up to 4400′ MSL.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activity weekends, holidays, and occasionally wkdays, from alts ranging from 2800′–15,000′, opening at absolute alts of 2000′–2500′. Center of drop zone lctd at 36°38′N, 121°46′W in Restricted Area R-2511. Ctc Fritzsche Twr for advisory info.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500′.

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekends, holidays, and occasionally weekdays. Up to 15,000′.

Hollister Mun: 1 mi NE. Weekends and occasionally week days. 12,500′ MSL.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, one half mile S of arpt. Up to 15,000′ MSL.

Lake Berryessa: Lat 38°31′, 122°12′. Mon thru Sat. Up to 2000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld, Santee, Calif., two mi out of ctl area. Daily, greatest activity weekends. Up to 15,000′.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends and holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekends.

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy btn Linden and Sacramento VORs. Up to 9,500′.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000′ MSL.

Milpatas, King Skylanes Arpt: 3 mi E; Weekends. From 12,500′.

Ojai, Henderson Arpt: Weekends from 14,000′ MSL 3 mi SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500′ MSL. Weekends and holidays.

Piru: Tues-Fri. 2 mi E. Up to 14,500′.

San Diego, Brown Fld: NW corner of fld. Weekdays, morning hrs. Up to 15,000′.

San Diego–County Arpt (Gillespie Fld): Up to 20,000′ MSL, chute opening alt aprxly 2700–3000′ MSL in vcnty of arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up to 15,000′.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. Weekdays and ngts. Up to 15,000′.

Santa Maria Arpt: Weekends and holidays. Up to 15,000′ MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Suns and holidays. Up to 18,500′ MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 and 20,000′.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat, Sun and holidays; week days 0500–0800 and 1600–1900. Up to 15,000′ MSL.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ mi SSE from 7500′ AGL.

Littleton, Columbine Arpt: 2 mi S. Up to 13,500′ AGL.
Longmont Mun Arpt: Weekends and holidays up to 15,000′.

CONNECTICUT

Burlington, Johhnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

DELAWARE

Delmar-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.
Selbyville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

Buchan Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.
Clewiston, Airglades Arpt: Up to 12,000′.
Deland Mun Arpt: Up to 7,000′ daily and weekends.
•**Eglin AFB Aux #9 (Hurlburt Fld):** Unscheduled. Up to 12,500′.
Fort Lauderdale: 2 mi NE rdo bcn. Weekends and holidays. Up to 12,000′.
Homestead AFB: Occasionally. Up to 1,000′ MSL.
Howey Arpt: Weekends. Up to 10,000′.
Kissimmee Arpt: Daily and weekends. Up to 12,000′.
Marianna Mun Arpt: 5 mi radius; weekends during daylight hrs and intermittently daily Mon thru Fri and at ngt. Up to 12,500′.
Palatka, Kay Larkin Arpt: Weekends.
•**Sanford NAS:** Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.
Santa Rosa Island: Daily. Up to 12,500′.
•**Umatilla Arpt:** 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.
Venice Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.
Williston Mun Arpt: Weekends.
Zephyrhills Arpt: Sundays. Up to 12,500′.

GEORGIA

Cleveland, White Co Arpt: Weekends. Up to 12,500′.
Dawson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.
Stockbridge, Bellah Fld: Weekends. Up to 15,500′.
Villa Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

ILLINOIS

Aledo, Mercer Co Arpt: Evening and weekends. Up to 10,000′.
Alton, Civic Meml Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.
Breese Arpt: ½ mi N. Up to 7,000′.
Chicago, Hammond Arpt: Weekends. Up to 12,500′.
Danville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.
Hebron Arpt: Daily.
•**Hillsboro:** 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.
Kankakee, Greater Kankakee Arpt: Weekends. From 4000′.

INDIANA

Ramsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.
Rising Sun Arpt: Sundays. Within 5 mi radius. Up to 14,500′.
Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.
Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

KANSAS

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.
•**Mulvane Arpt:** Weekends and intermittently at other times Up to 22,000′. Occasionally ngts.
Salina Mun Arpt: Evenings and weekends. From 12,500′

KENTUCKY

•**Fort Knox:** 3 mi SW of Godman AAF weekends and holidays, 1800–2200Z. Up to 10,000′.
Henderson City Co. Arpt: 149° radial EVV VOR 8.1 nmi Up to 10,000′ MSL.
Hopkinsville, Christian Co. Arpt: 4 mi NNE. Tues evening and Weekends. Up to 12,500′.
Madisonville, Athey Arpt: Suns and holidays 0700–SS. Up to 12,500′.
Thornhill: 133° radial CVG VOR 15 nmi. Weekends. Up to 12,000′ MSL.

LOUISIANA

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′
Fort Polk, Polk AAF: 2 nmi radius.
Hammond Arpt: Intermittently. Up to 10,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.
Sanford: Unscheduled jumps from 2700′ to 12,500′.
Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland, Mexico Farms Arpt: Up to 3000′. Most activity weekends.
Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.
Elkton, Lovett Arpt: Weekends. Up to 3000′.
Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays Up to 12,000′.
Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

MASSACHUSETTS

Agawam: Evenings, weekends and holidays.
Bedford, Hanscom Fld: 1300–2000Z Thur and Sat. Up to 1500′.
Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.
Mansfield Mun Arpt: 2–3 NM W (vcnty of old Attleboro Arpt). Up to 7,000′.
Mansfield Mun Arpt: Unscheduled. Mostly weekends and holidays. Up to 12,000′.
•**Maynard:** 1 mi SW within 1 mi radius of lat 42°25′N 71°20′W. Airdrop of personnel and eqpmt conducted daily 1800Z–0200Z at Natrick Labs Annex. Up to 2500′.

[illegible], Turners Falls Arpt: Weekends and holidays. Up to 13,000'.

[illegible] Mun Arpt: 2 mi radius. Day and night. Most activity weekends and holidays; moderate weekends. Up to 14,500'.

[illegible] Mun Arpt: Weekends. Up to 7200'.

MICHIGAN

[illegible], Iosco Arpt: Up to 13,500'.

[illegible], Richmond Fld: Weekends.

[illegible] Co. Memorial Arpt: NOTAMS will be issued when activated.

[illegible], Brooks Fld: Weekends. Up to 13,000'.

[illegible]: 5 mi S. Weekends. Up to 15,500'.

[illegible] Northside Airport: Up to 15,000'.

[illegible], Otsego-Plainwell Mun Arpt: Sundays.

[illegible] Arpt: Weekends. Up to 13,000'.

[illegible] Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000'.

MINNESOTA

Aitkin Mun Arpt: Weekends.

[illegible]: 2 mi E. Weekends. Up to 12,000'. Summer months: Wed afternoons.

[illegible], Flying Cloud Arpt: 5 SM S. Up to 1500' MSL.

MISSISSIPPI

[illegible], Formco Arpt: Weekends. Up to 12,000'.

MISSOURI

[illegible] Meml Arpt: Weekends. Up to 12,000' MSL.

[illegible], Lohmaster Arpt: Weekends and holidays. Up to 11,000'.

MONTANA

[illegible] Arpt: 0.4 mi E. Weekends. Up to 11,000'.

[illegible] Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000' MSL—Miller Creek Area lat 46°47' to 46°49' long 114°01' to 114°05'. U.S. Forest Service Practice Areas . . . altitudes to 1500' AGL small areas venty of Lavelle Creek lat 47°00' long 114°03'; Mill Creek lat 47°02' long 114°12'; Sherman Creek lat 46°54' long 114°12'; O'Brien Creek lat 46°52', long 114°08'; Hayes Creek lat 46°49' long 114°06'; Ninemile Creek lat 47°05' long 114°23'; Fournier Creek lat 47°01' long 114°11'; Miller Creek lat 46°43' long 113°54'; Wild Horse Ridge lat 46°54' long 114°19'.

NEBRASKA

[illegible] Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500' AGL.

[illegible]: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500' AGL.

NEVADA

[illegible] City Arpt: Weekends. Up to 12,500' MSL.

[illegible] Vegas, Thunderbird Fld: 3.5 mi WSW 7 days a wk. Up to 12,500'.

NEW JERSEY

[illegible]town Arpt: Daily exc̄p Tues. From 13,000'.

[illegible]ington, Adams Arpk: Dalgt hrs. Weekends. Up to 25,000'.

[illegible]town, Applegrath Landing Strip: Weekends. Up to 12,500'.

Lakehurst NAS-West Fld: Up to 12,000'.

Lakewood Arpt: Within 2 mi radius. Up to 12,500'.

Manville Kupper Arpt: Dalgt hrs daily. Up to 25,000'.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500'.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500'.

Erie Airways: 22.5 NM SW of BUF VOR on V14, 3 mi NE of Angola, N.Y. SR-½ hr past SS. Up to 13,500' MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holidays. Up to 15,000'.

Greene Arpt: Within 5 mi radius. Weekends and holidays till 1 hr after SS. Wed 1500-1 hr after SS. Up to 15,000'.

Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. Up to 13,000' AGL.

●Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000' MSL.

Randolph Arpt: Daily. Up to 15,000'.

Stormville Arpt: Weekends and holidays. Up to 12,000'.

NORTH CAROLINA

Charlotte, Brockenborough Arpt: 5 mi N. Wed, Sat and Suns, beginning at 1200E. Up to 14,000'.

Erwin Arpt: Weekends.

Greensboro, Air Harbor Arpt: Weekends.

New River MCAF: On V157 1100 0300 daily from 23,500'.

●Shelby Mun Arpt: Sat and Sun. Up to 12,000'.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. Up to 14,000' MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point 5 nmi E of arpt. Up to 13,500'.

OHIO

Bucyrus, Port Bucyrus Arpt: Weekends. Up to 12,500'.

Circleville: 5 mi NE. Sat and Sun 1600Z to SS. Up to 12,000'.

Columbia Station Arpt: About 3 mi SW. Daily. Up to 8500' AGL.

Columbus Mun Arpt: 17 mi SW. Evenings except Mon and Fri; weekends and holidays. Up to 10,000' AGL.

Columbus Air Park: Weekends SR–SS. Week days evenings. Up to 25,000'.

●Elyria, Nimrod Arpt: 2200Z thru 0400Z Mon thru Fri., 1600Z thru 0400Z Sat and Sun. Up to 12,500' AGL.

Fostoria, Snyder Arpt: Weekends and holidays. Intermittently during the wk. Up to 12,000' AGL.

Geneva, Germack Arpt: 3 mi SE Suns 1600Z–0200Z. Up to 9,000'.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,500'.

Piqua Arpt: Up to 12,000'. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Weekends. Up to 10,000'.

South Dayton Arpt: Up to 18,000'. Daily.

Springfield Arpt: Wed, Sat and Suns. Up to 12,500'.

Waynesville Arpt: Suns. Up to 10,000'.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000'.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600' MSL.

Xenia Arpt: Daily. Up to 20,000′.

Youngstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

OKLAHOMA

Bartlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

Oklahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

Stroud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

Astoria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

Cave Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000′ AGL.

Medford Arpt: 4 mi W. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

Portland: From various alts, moderate wkdays, hvy wkends and holidays. Jump sites 5 mi S of Hillsboro arpt: 3 mi S of Beaverton arpt; 3 mi E of Scholl Arpt, Orchards, Wash; and 7 mi NNE Scholl Arpt.

Portland: ½ mi S of Scholl, Wash.

Portland: 3 mi W of Aurora, Oreg.

Redmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

Redmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

PENNSYLVANIA

Campbelltown, Reigles Arpt: Daily. Up to 15,000′.

Hazleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500′ MSL.

Johnsville NAF: Within 2 mi radius. Up to 13,000′.

Meadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

New Hanover Arpt: Most activities weekends. Up to 12,500′.

Pottstown Arpt: Weekends. Up to 8000′.

Reading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

RHODE ISLAND

Greene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

Fairfax Arpt: Weekends. Up to 12,500′.

Lane Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

Moncks Corner Mun Arpt: Weekends. Up to 10,000′.

Orangeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

Sumter Arpt: Daily 1800Z to sunset. From 7,200′. Sat, Sun, holidays. Up to 10,000′.

Timmonsville, Huggins Arpt: Sat, Sun and holidays. From 10,000′.

Walterboro Mun Arpt: Weekends. From 10,000′.

TENNESSEE

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 6 mi S. 0600 to 1900 EST 7 days per wk. Up to 12,500′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedul Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregul schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200 thru 0500Z and 1900Z thru 2300Z Sats and Suns. U to 2040′ MSL.

Cleburne Arpt: Weekends. Up to 7,500′ MSL.

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500′ MSL.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend an occasional wk days. Up to 20,000′.

Houston, Waller Arpt: Parachuting, gliding and balloonin within 5 mi radius. Daily, day and ngt. Up to 24,000

Lampasas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,50

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Week ends and holidays, occasionally weekdays. Up to 15,00 MSL.

San Marcos, Camp Gary AAF: Weekends and holidays. U to 14,500′.

Taylor Mun Arpt: Weekends.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

HILL AFB: Two times per mo. during dalgt hrs and tw times per year during ngt time, 1200′ W of rnwy 14–3 Up to 6000′ MSL.

Ogden: 8 mi N. Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up t 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up t 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sk diving.

Clover Arpt: 3 mi radius. Suns. Up to 8,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hopewell Arpt: Weekends. Up to 9000′.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340 radial. Weekends. Up to 12,500′. Occasional ng jump.

Midland: 8 nmi from CSN VOR on 120° rad. Weekend Up to 12,000′.

New Castle Intl Arpt: Weekends and holiday. Up t 14,000′.

ceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000'.

Aoski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000'.

uth Boston, Tuck Arpt: Within 3 mi radius. Suns 1200 to 1800 EST. Up to 10,000'.

uth Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000'.

folk Mun Arpt: Weekends and holidays. Up to 12,000'.

ynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000'.

nt Point Arpt: Weekends and holidays. Up to 12,000'.

WASHINGTON

undow Arpt: Weekends and holidays. Up to 15,000'.

oquch-Sky Ranch Arpt: Wed, Fri and weekends. Up to 7000'.

rson AFB: 1 mi from apch end of rnwy 21. Weekends d occasional ngt. Up to 1500' AGL.

Chord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500' AGL.

ssel Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000'.

k Harbor, Whidbey Island NAS: Weekends. Up to 12,500' MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000'.

Richland Arpt: 3 mi W SR to 1 hr after SS. Up to 12,500' AGL.

●**Snohomish Arpt:** Daily. Up to 24,000' MSL. Occasionally 1 mi SW.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

● **Holstein Arpt (New):** Weekends, SR-SS. Sat and Sun. Up to 12,500'.

Juneau (Dodge Co Arpt): Weekdays after 1700 Sat and Sun afternoons. Up to 13,500'.

●**Lake Geneva/Natl Sports Parachuting Center:** 1000–1 hr after SS, Sat and Sun. Up to 12,500'.

Superior Arpt: 5 mi SE weekends SR–SS. Up to 12,500'.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri. Up to 12,500' MSL.

Ossee: 3 mi W. Sundays. Up to 10,000'.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred routings which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic control service.

The following list will hereafter appear in EACH issue of the AIRGI.

This list contains preferred routes for the low altitude stratum (below 18,000 feet MSL).

Low Altitude Stratum—A distinctive numbering system (800 Series) has been introduced to indicate some of the preferred routes in this stratum and thereby eliminate the present lengthy route descriptions. Many of the preferred routes, however, retain the common basic airway numbers or use the two systems of numbering in combination. Additional designations of "800 Series Airways" will be made where simplicity and convenience to both pilots and controllers dictate such assignments.

Preferred Route Starting and Terminating Fixes—Preferred routes generally commence and terminate at fixes on or near the perimeter of t terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Surve are the normal routes between the airport and the preferred route startin terminating fixes. Whenever a fix is shown in **bold-face** type, pilots shou refer to the appropriate Area Chart for the routing he may expect prior or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate th the airway essentially overlies the airport and flights are normally clear directly on the airway. All preferred routes are listed alphabetically un the name of the departure airport. Major airports in close proximity a listed under the principal airport and categorized as a metropolitan are e.g., Chicago Metro Area. Official location identifiers are used in the rou description for VOR/VORTAC navaids. L/MF navaids are identified by t identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names a spelled out. Where two navaids or an intersection and a navaid follow succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ALBANY

Boston..... V2 **GDM** (L–25)
Kennedy..... V91 V475 **DPK** (L–25)
La Guardia..... V91 V1 V123 **Stamford** (L–25)
Newark..... V489 IGN SAX SAX 205 rad **Budd Lake** (L25)

ALBUQUERQUE

Denver..... **ADEN** V19W SAF V83 PUB V19E **IOC** (L–4, 6)
Kansas City..... **Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L–6)
Los Angeles..... **GNT** V12 EED V208 TNP V264S **ONT.** (L–4, 3)
Phoenix..... **GNT** V190N SJN V190 Lake. (L–4)

ATLANTA METRO AREA

Birmingham..... **Newnan** V20N V66 V115 Lewis (L–20, 14)
Cincinnati..... Crabapple V97 **Dry Ridge** (L–20, 22)
Charlotte..... **Conyers** V66 FML (L–20)
Chicago..... **Crabapple** V51 **CGT** (L–14, 20, 21, 23)
•Dallas..... **Newnan** V20N V66 TCL V18 MLU V94 V477E **Forney** (L–20, L–14, L–18, L–17, L–13)
Dulles Intl..... **Conyers** V66 FML V454 LVL V155 GVE V39 **CSN** (L–20, 22)
•Houston..... **Newnan** V20N V66 TCL V18 MEI V194 MCB V222 LCH V222N **Monument** (L–20, L–14, L–18, L–17, L–15)
Kennedy..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 (L–20, 22, 24)
Jacksonville..... **Griffin** V243 AYS V243W **Callahan** (L20, 18)
La Guardia..... **Conyers** V66 FML V454 LVL V157 RIC V20 V2 **JFK** (L–20, 22, 24)
Memphis..... **Newnan** V20N V66 V115 BHM V176N HLI (L–20, 1
Miami..... **Brooks** V843 **MIA** (L–20, 18, 19)
Newark..... **Conyers** V66 FML V454 V157 V20 V213 V29 V4 **Rocky Hill** (L–20, 22, 24)
Orlando..... **Griffin** V243 AYS V157 OCF V159W **Clermont** (L2 18, 19)
Pittsburgh..... **Crabapple** V97 TYS V115 PKB V119 **HLG** (L-2 22, 24)
Tampa..... **Brooks** V843 HOMO V35E **Hazel** (L–20, 18, 19)
Washington..... **Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 2

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta..... ANB V18 **Sargent** (L–14, 20)
New Orleans..... TCL V875 **Madison** (L–14, 18, 17)
Pittsburgh..... GAD V115E CHA V115 PKB V119 **HLG** (L–14, 22, 2

BOSTON METRO AREA

Albany..... V14 Melrose (L–25)
Buffalo..... V14 Bellona V31 ROC V142 **Grant** (L–25)
Cleveland..... V14 ALB V72 Hadley V232 **Mentor** (L–25, L–24)
Kennedy..... **PUT** V879 **DPK** (L–25)

BOSTON METRO AREA—Continued

La Guardia..... **Millbury** V875 V157 **Stamford** (L-25)
Newark..... **Millbury** V875 V251 SAX SAX 205 rad **Budd Lake** (L-25, 24)
Philadelphia..... **Millbury** V875 **Warrington** (L-25, 24)
Rochester..... V14 Bellona V31 Fishers (L-25)
Washington..... **PUT** V888 **North Beach** (L-25, 24)

BUFFALO METRO AREA

Boston..... **GEE** V14 **GDM** (L-12, L-25)
Cleveland..... **Langford** V464 DKK V14 **Mentor** (L-12, 24)
Detroit..... V2 QO V90N Dolphin V90 **QG** (L-12, 23)
Kennedy..... V252 BGM V270 V34 V475 **DPK** (L-12, 25)
La Guardia..... V252 GEE V147 ABE V6 V433 **Liberty** (L-12, 25)
Midway..... V84 LAN V218 **Surf** (L-12, 23)
Newark..... V252 GEE V147 ELM V36 AVP V153 **BUDD LAKE** (L-12, 25)
O'Hare..... V84 **OBK** (L12, 23)
Philadelphia..... V33 HAR V12 **ESR** (L-12, 24)
Pittsburgh..... V115 **EWC** (L-12, 24)
Washington..... V33 HAR V265 **Clarksville** (L-12, 24)

CHARLESTON, W. VA.

Cincinnati..... V128 YRK V128S **Grants Lick** (L-22)
Cleveland..... V115 PKB V839 **Sharon** L-22, 24, 23)
Columbus..... V133 V214 Hanover (L-22, 23)
Louisville..... V128 YRK V44 FLM V502 (L-22, 21)
Pittsburgh..... V115 PKB V119 **HLG** (L-22, 24)
Washington..... V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta..... FML V194 Homer V20N **OCR** (L20)
Cleveland..... Moorseville V37 PSK V839 **Sharon** (L-20, 22, 24)
Kennedy..... New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L-20, 22, 24)
La Guardia..... New London V454 LVL V157 V20 V213 **JFK** (L-20, 22, 24)
Miami..... FML V37 ALD V157 LAL V843 **Cypress** (L-20, 18, 19)
Washington..... New London V454 LVL V157 **Ironsides** (L-20, 22)

CHICAGO METRO AREA

To Midway or O'Hare

Atlanta..... **EON** V843 **Kennesaw** (L-23, 21, 14, 20)
Denver..... **Malta** V846 (L-23, 6, 8)
Detroit City..... V100 V218 Plains V42 **Troy** (L23)
Dulles..... **EON** V853 **HRN** (L-23, 22)
Kennedy..... V6 SEG V810 **RBV** (L-23, 24)
Indianapolis..... **EON** V128 (L-23)
La Guardia..... V6 V433 **Liberty** (L-23, 24)
Los Angeles..... **Malta** V846 DEN V8 (L-23, 6, 8, 3)
Memphis..... **Big Rum** V173 CAP V9 **Kenville** (L-23, 21, 14)
Miami..... **EON** V843 (L-23, 21, 14, 18, 19)
Minneapolis..... V855 **FGT**; or V172 V129 RWY V855 **FGT** (L-23, 11, 10)
Newark..... V6 SEG V30 **Rocky Hill** (L-23, 24)
Philadelphia..... V6 V30 PSB V33 HAR V12 **ESR** (L-23, 24)
Pittsburgh..... V6 V103 ACO V297 **EWC** (L-23)
San Francisco..... **Malta** V854 (L-23, 11, 8, 7, 2)
St. Louis..... **Big Rum** V191 V426 **Godfrey** (L-23, 21)
Tampa..... V843 Home V35E **Hazel** (L-23, 21, 14, 20, 18, 19)
Tulsa..... V845 EOS V14 (L-23, 6, 14)
Washington..... **EON** V853 **HRN** (L-23, 22)

From Midway only

Cleveland..... **Crib** V6 V232 **Vermilion** (L-23)
Des Moines..... **API** V8 CVA V233 CID V846 **TNU** (L-23, 11)
Kansas City..... **API** V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co... V10 **Dundee** (L-23)
Omaha..... **API** V8 CVA V233 CID V846 EOL (L-23, 11)
Willow Run..... **Crib** V10 LFD V90 (L-23)

From O'Hare only

Cleveland..... V172 V228 SBN V6 V232 **Vermilion** (L-23)
Des Moines..... V172 **TNU** (L-23, 11)
Kansas City..... V84 BDF V10 **Kearney** (L-23, 11, 21)
Metro Wayne Co.. V100 Leroy V30 LFD V10 **Dundee** (L-23)
Omaha..... V172 PLL V846 EOL (L-23, 11)
Willow Run..... V100 V30 V90 (L-23)
Windsor..... V100 V218 **Plains** (L-23)

CINCINNATI METRO AREA

Atlanta..... V97 TYS V267 **OCR** (L-21, 22, 20)
Charleston, W. Va. V128 (L-21, 22, 20)
Chicago..... V97 **CGT** (L-21, 23)
Detroit (City)..... V275 VWV V47 **SVM** (L-21, 23)
Indianapolis V97 (L-21, 23)
La Guardia..... V128 YRK V44 MGW V106 SEG V6 V433 **Liberty** (L-22, 24)
Louisville..... V47 ABB V51 (L-21)
Metro Wayne Co... V275 VWV V47 **Dundee** (L-21, 23)
Miami..... V47 ABB V51 CSV V51W CHA V843 **Cypress**, or V97 ATL V843 **Cypress** (L-21, 22, 20, 18, 19)
Newark..... V128 YRK V44 MGW V106 V30 **Rocky Hill** (L-22, 24)
Pittsburgh..... V128 YRK V44 PKB V119 **HLG** (L-22, 24)
St. Louis..... V47 ABB V44 ENL V4 **TOY** (L-21)
Willow Run..... V275 VWV V47 **Dundee** (L21, 23)

CLEVELAND METRO AREA

Boston..... V14N ERI V270 BGM V72 ALB V2 **GDM** (L-23, 24, 12, 25)
Buffalo..... V14N **Crystal Beach** (L-23, 24, 12)
Charlotte..... V443 TVT V133 Stanley (L-23, 22, 20)
Chicago..... V126 CGT V7 **Niles** (L-23)
Columbus..... V443 TVT V43 APE (L-23)
Dayton..... V14 ATO V435 ROD (L-23)
Detroit (City)..... V42E QG V90 (L-23)
Kennedy..... **ACO** V30 SEG V810 **RBV** (L-24)
Indianapolis..... **CLE** V14 (L23)
La Guardia..... **ACO** V30 CIP V6 Amboy V433 **Liberty** (L-24)
Metro Wayne Co... V42E V10 **CRL** (L-23)
Miami..... V881 **Cypress** (L-22, 20, 18, 19)
Newark..... **ACO** V30 **Rocky Hill** (L-24)
Philadelphia..... **ACO** V30 PSB V33 HAR V12 **ESR** (L-24)
Pittsburgh..... **ACO** V297 **EWC** (L-24)
Rochester.....V14N ERI V14 BUF V2 Clifton (L-23, 24, 12)
Washington..... **ACO** V103 IRL V37 Millsboro V92 FRR V4 **HRN** (L-24)
Willow Run..... V42E QG V90 (L-23)

COLUMBUS

Charleston, W. Va.. APE V38 V133 (L–23, 24, 22)
Indianapolis..... Grindell V210 (L–23)
La Guardia..... APE V802 V6 V433 **Liberty** (L–23, 24)
Pittsburgh..... APE V12 **HLG** (L–23, 24)
St. Louis..... V12N V210 VLA V14N **Godfrey** (L–23, 21)
Toledo..... V38 FDY V47 (L–23)
Washington..... APE V144 ESL V4 **HRN** (L–23, 24)

DALLAS/FT. WORTH METRO AREA

Amarillo..... **Lakeside** V114 Claude (L–13)
•Atlanta..... **DAL** V278 BHM V18 **Sargent** (L–13, L–14, L–20)
Dulles Intl..... V830 MOL V251 **FRR** (L–13, 14, 21, 22)
El Paso..... **Joshua** V94 INK V16 **RIO** (L–13, 4)
Houston..... **Trinity Fork** V477 LOA V477W **Fairbanks** (L–13, 17)
Los Angeles..... **Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L–13, 4, 3)
Memphis..... **DAL** V830 PBF V16N Round Pond (L–13, 14)
Midway..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
New Orleans..... **DAL** V114 **French** (L–13, 17)
O'Hare..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L–13, 6, 21, 11, 23)
San Antonio..... **Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L–13, 15)
Tulsa..... **DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L–13, 6)
Washington..... **DAL** V830 **Ironsides** (L–13, 14, 21, 22)

DAYTON

Chicago..... DAY 001 Radial V277 FWA V55 V422 **CGT** (L–23)
Cleveland..... V275 FDY V8 MFD V246 **Sharon** (L–23)
Detroit (City)..... V275 FDY V47 **SVM** (L–23)
La Guardia..... V802 V6 V433 **Liberty** (L–23, 24)
Metro Wayne Co./ Willow Run..... V275 FDY V47 **Dundee** (L–23)
Oklahoma City.... DAY V50N IND V210 STL V14 TUL V14N **Stillwater** (L–23, 21, 6)
Washington..... V12 APE V144 ESL V4 **HRN** (L–23, 24)

DENVER METRO AREA

Chicago..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L–8, 11, 23)
Kennedy..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L–8, 11, 23. 24)

DETROIT METRO AREA

Kennedy..... V221 ERI V810 SEG V30 ETX **RBV** (L–12, 24)
From City and Windsor only
Newark..... V221 ERI V810 SEG V30 **Rocky Hill** (L–12, 23, 24, 28, 25)
Philadelphia..... V221 ERI V116 BFD V33 HAR V12 **ESR** (L–12, 24)
Ft. Wayne..... **SVM** V170 Leslie V45 JXN V221 (L–23)
Midway..... **SVM** V170 V84 V7E V116 (L–23)
Milwaukee..... **SVM** V170 PMM V30S **Pike** (L–12, 23)
O'Hare..... **SVM** V170 V84 **OBK** (L–23)
From Metro or Willow Run only
Buffalo..... V221 V90 V14N **Crystal Beach** (L–12)
Cleveland..... **Crest** V297 **Vermilion** (L–23)
Ft. Wayne..... **Dexter** V221 (L–23)
Midway..... **Pinckney** V170 V84 V7E V116 (L–12, 23)
Milwaukee..... **Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L–12, 23)
O'Hare..... **Pinckney** V170 V84 **OBK** (L–12, 23)
Pittsburgh..... **Crest** V133 BAY V6 V42 ACO V297 **EWC** (L–23,24
Rochester..... V221 V90 V14 V2 (L–12)
Washington..... **Crest** V133 ZZV V144 ESL V4 **HRN** (L–23, 24)

EL PASO

Dallas..... **HUP** V66 MAF V16S BGS V16 ABI V66 Denton V114 **Lakeside** (L–4, 13)
Los Angeles..... **EWM** V94 GBN V461 BXK V16 **ONT** (L–4, 3)
San Antonio..... **HUP** V198 **Bearne** (L–4, 15)

HAVANA

Miami..... Balboa drct MTH drct Sable B19 **PRR** (L–19)

HOUSTON METRO AREA

Atlanta..... **LaPorte** V20S LCH V20 LFT V70 EVR V20 **Tyree** (L–17, 18, 14, 20)
Dallas..... **Gulf Coast** V477E **Forney** (L–17, 13)
New Orleans..... **LaPorte** V20S LCH V20 **Turtle** (L–17)
San Antonio..... **Andrau** V222 **Hunter** (L–17, 15)

INDIANAPOLIS

Detroit..... V11 **SVM** (L–23)
Evansville..... V11W SCJ V11E (L–21)
Kennedy..... V50 DAY V12 V162 V810 **RBV** (L–23, 24)
La Guardia..... V50 DAY V802 V6 V433 **Liberty** (L–23, 24)
Metro Wayne Co... V11 V10 **Dundee** (L–23)
Midway..... V97W V97 **CGT** (L–23)
Newark..... V50 DAY V802 V30 **Rocky Hill** (L–23, 24)
Pittsburgh..... V50 DAY V12 **HLG** (L–23, 24)
St. Louis..... V14 VLA V14N **Godfrey** (L–21)
Willow Run..... V11 V10 **Dundee** (L–23)

JACKSONVILLE

Atlanta..... **Kings** V5E DBN V5 **MDU** (L18, 20)
Dulles Intl..... **Climb** V3E SAV V3 RDU V155 GVE V39 **CSN** (L–18, 20, 22)
Kennedy..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L–18, 20, 22, 24)
LaGuardia..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **JFK** (L–18, 20, 22, 24)
Miami..... **Blue Jacket** V267 **New River** (L–19)
Newark..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L–18, 20, 22, 24)
Norfolk..... **Climb** V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN (L–18, 20, 22)
Orlando..... **Blue Jacket V267** Woodruff (L–18, 19)
Philadelphia..... **Climb** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L–18, 20, 22, 24)
Washington..... **Climb** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L–18, 20, 22)

KANSAS CITY METRO AREA

Midway..... **Excelsior** V116 **JOT** (L-21, 23)
O'Hare..... **Excelsior** V116 **JOT** (L-21, 23)
St. Louis..... **BSP** V12 **MTS** (L-21)
Wichita..... **Bonner Springs V12** De Graff (L-6)

KENNEDY—See New York Metro Area

LAGUARDIA—See New York Metro Area

LOUISVILLE

La Guardia..... V4 CRW V106 SEG V6 V433 **Liberty** (L-21, 22, 24)
Newark..... V4 CRW V106 V30 **Rocky Hill HIll** (L-21, 22, 24)

MEMPHIS

Atlanta..... HLI V176 BHM V18 **Sargent** (L-14, L-20)
Dallas..... **Enduro** V16S PBF V887 **DAL** (L-14, 13)
Dulles Intl..... **Moscow** V16S GHM V830 V251 **FRR** (L-14, 21, 22)
Midway..... Cuba V9W V9 **JOT** (L-14, 21, 22)
New Orleans..... **Arkabutla** V9W GRW V9 **MADISON** (L-14, 17)
O'Hare..... Cuba V9W V9 **JOT** (L-14, 21, 23)
Washington..... **MOSCOW** V16S GHM V830 **IRONSIDES** (L-14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta..... **MIA** V35 V7 LAL V157 AMG V5 **MDU** (L-19, L-18, L-20)
Charlotte..... **MIA** V35 V7 LAL V157 ALD V37 FML L-19, 18, 20)
Chicago..... **MIA** V35 FMY V819 DBN V267 TYS V97 **CGT** (L-19, 20, 22, 21, 23)
Cleveland..... **MIA** V839 (L-19, 20, 22, 21, 23)
Detroit (City)..... V839 CLE V42 **QG** (L-19, 20, 22, 21, 23)
Dulles Intl..... **GUPPY** Direct HALIBUT Control 1150 ILM V157 LVL V155 GVE V39 **CSN** (L-19, 20, 22)
Indianapolis..... **Gary** V51 EYW drct SF/Rbn; or PRR/Rbn drct Leon drct EYW drct SF/Rbn (L-19)
Kennedy..... **Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L-19, 20, 22, 24)
Jacksonville..... **Martin** V3E PBI V3 DAB V3E **Shiloh** (L-19)
La Guardia..... **Guppy** drct Halibut Control 1150 ILM VIW V213 **JFK** (--19, 20, 22, 24)
Metro Wayne Co... V839 CLE V42 V10 **CRL** (L-19, 20, 22, 24, 23)
Newark..... **Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L-19, 20, 22, 24)
Pittsburgh..... **MIA** V35 V7 LAL V157 ALD V37 **AGC** (L-19, 20, 22, 24)
Tampa..... **MIA** V35 **Hanson** (L-19)
Washington..... **Guppy** drct Halibut Control 1150 ILM V157 **Ironsides** (L-19, 20, 22)
Willow Run..... V839 CLE V42 **QG** (L-19, 20, 22, 24, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago..... V9 **API**; or **Taylor** V7E V116 **Surf** (L-12, 23)
Detroit..... V2S MKG V2 **SVM** (L-12)
Kennedy..... V2S MKG V2 SVM V116 QG V810 SEG V30 ETX **RBV** (L-12, 23, 24)

MINNEAPOLIS METRO AREA

Midway..... **Prescott** V2 V97 V171 V6 **API** (L-10, 11, 23)
O'Hare..... **Prescott** V2 V97 **Lakewood** (L-10, 11, 23)

MONTGOMERY

Washington..... **TQE** V154 MCN V56 AGS V155 V157 **Ironsides**; or **Martin** V837 **Ironsides** (L-10, 20, 22)

NASHVILLE

La Guardia..... **Freedom** V140N LOZ V830 GVE V837 ENO V213 **JFK** (L-21, 22, 24)
Newark..... **Freedom** V140N LOZ V830 GVE V837 ENO V29 V433 **Rocky Hill** (L-21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta..... **PCU** V837 **Tyrone** (L-17, 18, 20)
•Birmingham..... **PCU** V455 MEI V154 V209 BWA drct BHM/LOM (L-17, L-18, L-14)
Dallas..... **Walker** V-114N AEX V-114 GGG V-94 V-477E **Forney** (L-17, 13)
Dulles Intl..... **PCU** V837 GVE V39 **CSN** (L-17, 18, 20, 22)
Houston..... **TBD** V20S LFT V20 LCH V222N **Monument** (L-17)
Kennedy..... **PCU** V837 SBV V20 V213 ENO V44 **BGT** (L-17, 18, 20, 22, 24)
Memphis..... **PCU** V9E MCB V9 GRW V9E **Independence** (L-14)
Newark..... **PCU** V837 SBV V20 V213 ENO V29 V433 **Rocky Hill** (L-17, 18, 20, 22, 24)
Washington..... **PCU** V837 **Ironsides** (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany..... **Sound** POU V487 Brainard (L-25)
Bradley..... **Sound** BDR BDR 020 radial Tamie (L-25)

From Newark only

Albany..... **SAX** POU V487 Brainard (L-25)
Atlanta..... **SBJ** V875 MOL V143 V222 V35 V20N **OCR** (L-24, 22, 20)
Baltimore..... **SBJ** V875 V93 (L-24)
Boston..... **SAX** POU V861 Sterling (L-25)
Bradley..... SAX IGN IGN 096 radial Tamie
Buffalo..... **TVE** V188 V147 V36 **Dale** (L-25)
Cincinnati..... **SBJ** V875 V166 V4 V174 V128S **Grants Lick** (L-24, 22)
Cleveland..... **TVE** V232 **Mentor** (L-24, 23)
Detroit (City)..... **TVE** V188 V103 **QG** (L-24, 23)
Detroit Metro Area.. **SAX** V880 **QG** (L-24, 23)
Dulles Intl..... **SBJ** V875 EMI V166 V223 **Sugar Loaf** (L-24)
Indianapolis..... **TVE** V232 V804 (L-24, 23)
Jacksonville..... **SBJ** V875 V29 SWL V139 V1 V437 SAV V3 **St. Marys** (L-24, 22, 20, 18)
Louisville..... **SBJ** V875 V166 V4 V174 V44 FLM V502 (L-24, 22, 21
Metro Wayne Co... **TVE** V188 **CRL** (L-24, 23)
Miami..... **SBJ** V3 V29 SWL V139 CCV V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24 22, 20, 19)
•Nashville..... **SBJ** V875 MOL V887 **Lebanon** (L-24, L-22, L-14)
New Orleans..... **SBJ** V875 **Madison** (L-24, 22, 20, 14, 18)
Norfolk Metro Area.. **SBJ** V875 V29 SWL V139 CCV (L-24, 22)

NEW YORK METRO AREA—Continued

From Newark only

Philadelphia..... **SBJ** V875 **Warrington** (L-24)
Pittsburgh..... **TVE** V232 ETG V226 **EWC** (L-24)
Providence..... **SAX** POU V861 V130 Lafayette (L-25)
Rochester..... **SAX** V807 Fishers (L-25)
Syracuse..... **SAX** V483 (L-25)
Toledo..... **TVE** V232 Mentor V126 (L-24, 23)
Washington..... **SBJ** V875 ESR ESR 244 rad **Clarksville** (L-24)
Willow Run..... **TVE** V188 V103 **QG** (L-24, 23)

From Kennedy only

Atlanta..... **Dutch** V888 V213 V20 SPA V20N **OCR** (L-24, 22, 20)
Baltimore..... **Dutch** V888 V44 (L-24)
Boston..... HTO V837 **HTM** (L-25)
Buffalo..... **HUO** V126 V36 **Dale** (L-25)
Cleveland..... **HUO** V126 V58 V226 V232 **Mentor** (L-25, 24, 23)
Detroit (City)..... **HUO** V126 V880 **QG** (L-25, 24, 23)
Dulles Int'l..... **HUO** TVE V39 V162 HAR V223 **Sugar Loaf** (L-25, 24)
Europe..... HTO V46 (L-25)
Jacksonville..... **Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville..... **HUO** TVE V39 V251 V166 V4 V174 V44 FLM V502 (L-25, 24, 22, 21)
Metro Wayne Co... **HUO** V126 BFD V72 V188 **CRL** (L25, 24, 23)
Miami..... **Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal..... **Sound** POU V487 (L-25, 26)
New Orleans..... **Dutch** V888 V16 ROA V875 **Madison** (L-24, 22, 20, 14, 18, 17)
Norfolk Metro Area.. **Dutch** V139 CCV (L-24, 22)
O'Hare..... **HUO** V126 AVP V880 **OBK** (L-25,24, 23)
Philadelphia..... **Dutch** CYN V140 V239 **OOD** (L-24)
Pittsburgh..... **HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence..... HTO V837 (L-25)
Rochester..... **HUO** V249 V34 Fishers (L-25)
Syracuse..... **HUO** V483 (L25)
Toronto..... **HUO** V126 AVP V36 (L-25, 12)
Washington..... **Dutch** V888 **North Beach** (L-24)
Willow Run..... **HUO** V126 BFD V72 V188 V103 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta..... **Paterson** V875 MOL V143 V222 V35 V20N **OCR** (L-24, 22, 20)
Baltimore..... **Paterson** V875 V93 (L-24)
Boston..... Sound V863 (L-25)
Buffalo..... **SAX** V36 **Dale** (L-25, 12)
Cincinnati..... **Paterson** V875 V166 V4 V174 V128S **Grants Lick** (L-24, 22)
Cleveland..... **SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus..... **SAX** TOH V804 V119 V214 Hanover (L-24, 23)
Detroit (City)..... **SAX V880 QG** (L-24, 23)
Dulles Intl..... **Paterson** V875 EMI V166 V223 **Sugar Loaf** (L-24)
Indianapolis..... **SAX** TOH V804 (L-24, 23)
Louisville..... **Paterson** V875 V166 V4 V174 V44 FLM V502 (L-24, 22, 21)
Montreal..... **Sound** POU V487 (L-25)
Metro Wayne Co... **SAX** V880 V14N V188 **CRL** (L-24, 23)
•Nashville..... **Paterson** V875 MOL V887 **Lebanon** (L-24, L-22, L-14)
O'Hare..... **SAX** V880 **OBK** (L-24, 25)
Philadelphia..... **Paterson** V875 **Warrington** (L-24)
Pittsburgh..... **SAX** TOH V804 ETG V226 **EWC** (L-24)
Providence..... **Sound** V863 V130 Lafayette (L-24, 25)
Rochester..... **SAX** V807 Fishers (L-25)
Toronto..... **SAX** V36 (L-25, 12)
Washington..... **Paterson** V875 ESR ESR 244 rad **Clarksville** (L-2
Willow Run..... **SAX** V880 V14N V188 V103 **QG** (L-24, 23)

NORFOLK METRO AREA

Charlotte..... CVI V194 Midland (L-22, 20)
Dulles Intl..... Farnham V286 **CSN** (L-22)
Kennedy..... CCV V1 **BGT** (L-22, 24)
Jacksonville..... CVI V805 **St. Marys** (L-22, 20, 18)
LaGuardia..... CCV V1 SBY V29 ENO V213 **JFK** (L-22, 24)
Newark..... CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia..... CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond..... HCM V156 (L-22)
Washington..... Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton..... **Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-21, 23)
Wichita..... **Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta..... Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville..... Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore..... **EWT** V166 V93 (L-24)
Boston..... MIV 100 rad V837 **HTM** (L-24, L-25)
Buffalo..... **Reinholds** V170 SLT V501 ELZ V119 Burns **Dale** (L-25)
Cleveland..... **Reinholds** V162S HAR V12 AGC V8 BSV **Sharon** (L-24, 23)
Detroit (City)..... **Reinholds** V162S V12 V37 V103 V42 **QG** (24, 2
Dulles Intl..... **EWT** 300 rad V875 EMI V166 V223 **Sugar L** (L-24)
Kennedy..... **Columbus** V123 **RBV** (L-24)
Jacksonville..... **MIV** 180 rad V139 V1 V437 V3 **St. Marys** (L-24, 20, 19)
LaGuardia..... **Columbus** V213 **JFK** (L-24)
Metro Wayne Co... **Reinholds** V162S V12 V37 V103 V42 V10 **CRL** (L-23)
Miami..... **MIV** 180 rad V139 CCV V1 Control 1150 Stur drct Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark..... V433 **Rocky Hill** (L-24)
Norfolk Metro Area.. **MIV** 180 rad V139 CCV (L-24, 22)
Pittsburgh..... **Reinholds** V162S V12 (L-24)
Rochester..... **Reinholds** V170 V31 Fishers (L-24, 25)
Washington..... EWT V166 EMI V3 V8 (L-24)
Willow Run..... **Reinholds** V162S V12 V37 V103 V42 **QG** (L-24

PHOENIX

Albuquerque..... **Lake** V190 Suwanne (L-4)
El Paso..... V105 CZG V94 SSO V198 **Harrington Ranch** (L-
Kansas City..... V190 DHT V234 HUT V280 TOP V4N **Farley** (L-

ITTSBURGH METRO AREA

Buffalo..... V37 EWC V115 (L-24, 12)
Cleveland..... V40 **Sharon** (L-23, 24)
Philadelphia..... **CLN** V210 V12 **ESR** (L-24)
Willow Run..... V40 CLE V26 **Park** (L-24, 23)

From Greater Pittsburgh only

Atlanta..... V103 Finley V115 TYS V267 **OCR** (L-24, 22, 20)
Baltimore..... V103 V92 Keyser V44 MRB V166 **EMI** (L-24)
Boston..... **Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L-24, 25)
Charleston, W. Va. V103 Finley V115 PKB V59 V106 (L-24, 22)
Chicago..... V40 BSV V8 FDY V422 CGT V7 **Niles** (L-24, 22)
Columbus..... V103 Wolfdale V214 (L-24, 23)
Detroit..... V40 CLE V26 **Park** (L-24, 23)
Kennedy..... V119 V276 **RBV** (L-24)
Indianapolis..... V210; or **Kilgore** V210 (L-24, 23)
LaGuardia..... V119 V276 Reedsville V802 V6 V433 **Liberty** (L-24)
Newark..... V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L-24)
Philadelphia..... **CLN** V210 HAR V12 **ESR** (L-24)
St. Louis..... **Kilgore** V210 VLA V14N **Godfrey** (L-23, 21, 6)
Washington..... V103 V92 FRR V4 **HRN** (L-24)

From Allegheny Co. only

Chicago..... **AGC** V8 FDY V422 CGT V7 **Niles** (L-24, 23)
Kennedy..... V802 Reedsville V276 **RBV** (L-24)
LaGuardia..... V802 SEG V6 V433 **Liberty** (L-24)
Newark..... V12 HAR V162 V30 **Rocky Hill** (L-24)

PROVIDENCE

Kennedy..... V167 V16 V879 **DPK** (L-25)
LaGuardia..... V167 V875 V157 **Stanford** (L-25)
Newark..... V167 HFD V251 SAX SAX 205 rad **Budd Lake** (L25)

PORTLAND

Seattle..... V23 **Rainier** (L-1)

RICHMOND

Philadelphia..... V20 Tappahannock V213 **OOD** (L-22, 24)

ROCHESTER

Baltimore..... V147 ELM V31 (L-25, 24)
Boston..... Fishers V31 Bellona V14 **GDM** (L--25)
Detroit..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)
Kennedy..... V147 GEE V252 BGM V270 V34 V475 **DPK** (L-25)
LaGuardia..... V147 ABE V6 V433 **Liberty** (L-25)
Newark..... V147 ELM V36 AVP V153 **Budd Lake** (L-25)
Philadelphia..... V147 ABE ABE 160 rad V3 **Warrington** (L-25, 24)
Washington..... V147 ELM V31 HAR V265 **Clarksville** (L-25, 24)
Willow Run..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L-12, 23)

SAN ANTONIO

Dallas..... **Mission** V17 ACT V15 **Desoto** (L-15, 17, 13)
El Paso..... **Guadalupe** V222 **Rio** (L-15, 4)
Houston..... **Clear Spring** V198 ELA V180 **Arcola** (L-15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

Chicago (ORD).... **LIN** V810 **Lakewood** (L-2, 5, 7, 8, 11, 23)

From San Francisco only

Burbank/Los Angeles. **Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2, 3)
Kennedy..... **LIN** V810 OBK V84 LAN V2 SVM V116 ERI V170 V276 **RBV** (L-2, 5, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland..... **TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V246 **Sharon** (L-21, 23)
Columbus..... **TOY** V12 (L-21, 23)
Dallas..... V14 EOS V845 **Gainesville** (L-21, 6, 13)
Ft. Worth ..... V14 EOS V15 OKM V161 **Justin** (L-21, 6, 13)
Indianapolis..... **TOY** V12 Wilbur V11 (L-21, 23)
Kansas City..... V4 **Missouri City** (L-21)
Memphis ..... V9 Kerrville (L-21, 14)
Midway/O'Hare... V9 **JOT** (L-21, 11, 23)
Tulsa..... V14 (L-21, 6)
Washington..... **TOY** V52 EVV V4 **HRN** (L-21, 22)

SYRACUSE

Kennedy..... V273 HNK V34 V475 **DPK** (L-25)
LaGuardia..... V153 V29 V6 V433 **Liberty** (L25)
Newark..... V153 **Budd Lake** (L-25)

TAMPA METRO AREA

Atlanta..... **V97W** Scallop V97 **Brooks** (L-19, 18, 20)
Miami..... **Gibson** V97 **MIA** (L-19)

TORONTO

LaGuardia..... V36 V147 V6 V433 **Liberty** (L-12, 25)

TULSA

Chicago..... V14 SGF V63 V116 **JOT** (L-6, 21, 11, 23)
Dallas..... OKM V845 **Gainesville** (L-6, 13)
Dayton..... V140 FYV V72 MAP V190 EVV V11 V12 (L-6, 21)
Indianapolis..... V140 FYV V72 MAP V190 EVV V11 (L-6, 21)
St. Louis..... V140 FYV V72 V9 **Lemay** (L-6, 21)

WASHINGTON/BALTIMORE METRO AREA

●Boston..... **Swan Point** BAL 103 rad V16 ENO V837 **HTM** (L-24, 25)
Chicago..... Flint Stone V8 FDY V422 **CGT** (L-24, 23)
Cleveland..... Flint Stone V8 BSV V40 **Sharon** (L-24, 23)
Jacksonville..... **BRV** V3 **St. Marys** (L-22, 20, 18)
●Kennedy..... **Swan Point** ENO 270 rad OOD 239 rad OOD V123 RBV (L24) or **Swan Point** ENO 270 rad OOD 239 rad V140 V238 VI **BGT** (L-24)
●LaGuardia..... **Swan Point** ENO 270 rad OOD 239 rad OOD V123 RBV V213 **JFK** (L-24)
●Newark..... **Swan Point** EWT 231 rad EWT V433 **Rocky Hill** (L-24)
●Philadelphia..... **Swan Point** ENO 270 rad OOD 239 rad OOD (L-24)
Pittsburgh..... Flint Stone V8 **AGC** (L-24)

From Washington only

Atlanta..... **CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L-22, 20)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Charleston, W. Va.. **CSN** V143 V156N V174 V4 (L-22)
Charlotte..... **BRV** V3 RDU V194 Weddington (L-22, 20)
Dallas..... **CSN** V887 **DAL** (L-22, 21, 14, 13)
Greensboro..... **CSN** V140 MOL V143 Leaksville (L-22)
Harrisburg..... **Ashburn** V8N V223 (L-24)
Jacksonville..... **BRV** V3 **St. Marys** (L-22, 20, 19)
Memphis..... **CSN** V887 Fisherville (L-22, 21, 14)
Miami..... **BRV** V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
●Nashville..... **CSN** V887 **Lebanon** (L-22, L-21)
New Orleans..... **CSN** V875 **Madison** (L-22, 20, 14, 18)
Norfolk Metro Area. **BRV** V286 Tappahannock V213 HPW (L-22)

From Baltimore only

Jacksonville..... V93 V213 V20 V157 V155 V3 **St. Marys** (L-24. 20, 19)

From Dulles Intl only

Kennedy..... **EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V. ACY V1 **BGT** (L-24)
Jacksonville..... V39E GVE V155 FAK V3 **St. Marys** (L-24)
LaGuardia..... **EMI** V166 EWT V157 RBV V213 **JFK** (L-24)
Miami..... V39E GVE V155 FAK V806 ILM control 1150 St geon drct Tarpon drct PBI V159E **Oakland** (L-20, 19)
Newark..... **EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia..... **MRB** V251 V12 **ESR** (L-24)

WICHITA

Oklahoma City.... Mayfield V77 PNC V77E **Stillwater** (L-6)
Kansas City..... White Water V77 TOP V4N **Farley** (L-6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

(Explantory information is provided in Section II–8)

CALIFORNIA

Fresno Air Terminal

In narrative form only

PINEDALE ONE DEPARTURE

Via direct Fresno VORTAC, then via (transition) or assigned route). Castle Transition—Via Fresno 273 and astle 150 radials to Castle VOR.

BOWLES ONE DEPARTURE

Via direct Fresno radio Beacon: then a 135 magnetic earing from the Fresno radio beacon to intercept the Los anos 084 radial at or above 3,000 feet; then via Los anos 084 radial to the Fresno 141 radial. Pixley Transi- on—Turn right via Fresno 141 and Bakersfield 322 dials to Bakersfield. Exeter Transition—Continue via os Banos 084 radial to intercept and proceed via Fresno 3 and Portersville 323 radials to Porterville.

● Ontario Intl Airport

Effective February 4, 1965

Ontario Colton One Departure—Change name to read: ntario Colton Three Departure. Ontario College One eparture—Change name to read: Ontario College Three eparture.

CONNECTICUT

Bradley Field, Windsor Locks

Narrative form only

AVON TWO DEPARTURE

Departure headings from all runways will be as- gned prior to take-off. Via Poughkeepsie VOR 089 dial to Poughkeepsie VOR. Maintain at or below 000 feet for 3 minutes after departure; Cross Madison OR 348 radial at or below 6,000 feet. Cross Bridge- ort VOR 357 radial at and maintain (as assigned by TC), then via (assigned route).

STAFFORD THREE DEPARTURE

Departure headings from all runways will be assigned rior to take-off. Via direct to V146, thence via V146 Putnam VORTAC; thence via Putnam VORTAC 100° dial to V16, V16 to Millis Intersection. Maintain at r below 3,000 feet for 3 minutes after departure; Cross utnam VORTAC at (as assigned by ATC). Thence via assigned route).

MADISON THREE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via 360° radial Hartford VOR to Hartford VOR; thence direct Madison VOR; thence V475 to Deer Park VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR at (as assigned by ATC), thence via (assigned route).

HARTFORD THREE DEPARTURES

Via direct Hartford VOR. Hartford VOR 258 radial to Yale Intersection. Cross Madison VOR 360 radial at or below 4,000 feet. Cross Yale Intersection at (as assigned by ATC), then via (assigned route).

Concurrently cancel Avon One. Stafford Two, Madison Two, Hartford Two Departures.

● DISTRICT OF COLUMBIA

Washington National Airport

Effective March 4, 1965

LANHAM TWO DEPARTURE

LANHAM TWO DEPARTURE NOT USABLE WHEN WASHINGTON NATIONAL IS TAKING OFF NORTH AND ANDREWS AFB IS LANDING SOUTH. **Takeoff Runway 3**—Turn right after departure, heading 050 for vector to Riverdale intersection. **Takeoff Runway 33**—Maintain runway heading, for vector to Riverdale intersection. **Takeoff Runway 36**—Turn right after departure heading 090 for vector to Riverdale intersection. **Takeoff Runway 15**—Turn right after departure heading 190 for vector to intercept Westminster VOR 186 radial. Cross Riverdale intersection at or above 3,000 feet. **Takeoff Runway 18**—Maintain runway heading for vector to intercept Westminster VOR 186 radial. Cross Riverdale intersection at or above 3,000 feet. **Takeoff Runway 21**—Turn left after departure heading 170 for vector to intercept Westminster VOR 186 radial. Cross Riverdale intersection at or above 3,000 feet. Baltimore VORTAC 231 radial, Kenton VORTAC 270 radial to SWAN POINT intersection. Cross Nottingham VOR 360 radial at 5,000 feet. Then via (transition) or (assigned route). **New Castle Transition,** Via New Castle VORTAC 231 radial to New Castle VORTAC. **Woodstown Transition,** via Kenton VORTAC 270 radial, Woodstown VOR 239 radial to Woodstown VOR. **Kenton Transition,** via Baltimore VORTAC 103 radial Kenton VORTAC 251 radial to Kenton VORTAC.

Concurrently cancel Lanham One Departure.

NEW YORK

Hancock Airport, Syracuse

In narrative form only

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR 352 radial to Georgetown VOR; cross Syracuse ILS LOM at 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. Then via (assigned route). Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 radial to West Monroe Intersection, cross Syracuse ILS LOM at 2,000 feet. Then via (transition) or (assigned route). Florence Transition—Via Syracuse VORTAC 050 radial and V145 to Utica VOR. Syracuse Transition—Via Syracuse VORTAC 050 radial to Syracuse VORTAC. Pulaski Transition—Via Georgetown VOR 352 radial and V29 to Pulaski Intersection. Take-off Runway 14—Turn left after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt.

In narrative form only

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City VORTAC 302 radial. Cross Akron VORTAC 084 radial at 3000 or above. Then via Ellwood City VORTAC 302 radial to the Ellwood City VORTAC. Cross Ellwood City VORTAC (as assigned by ATC), then via assigned route.

Departing aircraft shall be established on the Youngstown VOR 197 radial within 10 miles of the Youngstown VOR.

RHODE ISLAND

T. F. Green Arpt., Providence

In narrative form only

WARWICK ONE DEPARTURE

Takeoff Rnwy 5L/R–34—turn right to 160 heading as soon as practicable after leaving 500′. Climb on 160 heading to intercept Quonset Pt. VOR 038 radial. Takeoff Rnwy 16—Maintain rnwy heading to intercept Quonset Pt. VOR 038 radial. Takeoff Rnrwy 23L/R—Turn left to 090 heading as soon as practicable after leaving 500′. Climb on 090 heading to intercept Quonset Pt. VOR 038 radial. Radar vector to Providence VOR 132 radial to Quonset Pt. VOR 038 radial to Quonset Pt. VOR thence via Quonset Pt. VOR 218 radial to V–46. Cross Quonset Pt. VOR at 5000′ or below. Cross Norwich VORTAC 124 radial at 7000′. Cross Hampton VORTAC 082 radial (as assigned by ATC) then via (assigned route).

STERLING TWO DEPARTURE

Takeoff Runway 34–5L/R—turn left to 250 heading as soon as practicable after leaving 500 feet. Climb on 25[illegible] heading to intercept Providence VOR 284 radial. Takeoff Runway 23L/R–16—turn right to 340 heading as soon as practicable after leaving 500 feet. Climb on 340 heading to intercept Providence VOR 284 radial. Radar vector to Providence VOR 284 radial thence via Providence VOR 284 radial to Sterling VHF intersection. Cross Sterling VHF intersection at / as assigned by ATC/then via/transition/or/assigned/route. Riverhead Transition via V16 V879.

●UTAH

Salt Lake City Mun No. 1 Arpt

Effective April 1, 1965

Cancel Stansbury Three Departure.

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport ,Tucson

California

Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

CALIFORNIA

FORT JONES "FJS" VOR SHUTDOWN

April 8, VOR will be shut down until aprxly April 16. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-23	Shasta INT to Talent INT	Shasta INT to Talent INT via RBL VORTAC 324 rad and MFR VORTAC 156 rad	15,000	17,500
V-23W	FJS VOR to MFR VORTAC	None		
V-23E	FJS VOR to the dog leg of V23E (SIY RBn)	None		

Existing Reporting Points	Temporary Reporting Points	MRA
FJS VOR	None	
Applegate INT	None	

LOS BANOS "LSN" VOR SHUTDOWN

March 15, VOR will be shut down until aprxly April 15. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-23W-109-113	LSN VOR to Mendota Int	LSN Int to Mendota Int via FAT VORTAC 241 rad	5,000	17,500
V-23W-109-113	LSN VOR to Volta Int	LSN Int to Volta Int via SCK VORTAC 147 rad	5,500	17,500
V-107-230	LSN VOR to Cathedral Int	LSN Int to Cathedral Int via OAK VORTAC 114 rad	12,500	17,500
		MCA LSN Int N-bnd	12,500	
V-107	LSN VOR to AVE VORTAC	LSN Int to AVE VORTAC via AVE VORTAC 313 rad	10,000	
		MCA LSN Int SE-bnd	10,000	
V-230	LSN VOR to SNS VORTAC	LSN Int to Rancho Int via SNS VORTAC 068 rad	12,000	
		MCA LSN Int W-bnd	12,000	
		Rancho Int to SNS VORTAC via SNS VORTAC 068 rad	8,000	
V-113	LSN VOR to ROM VOR	LSN Int to ROM VOR via ROM VOR 335 rad	7,000	
		MCA LSN Int S-bnd	5,500	

Existing Reporting Points	Temporary Reporting Points
LSN VOR	FAT VORTAC 241 rad ROM VOR 335 rad
Mendota Int	FAT VORTAC 241 rad MER VOR 173 rad
Volta Int	SCK VORTAC 147 rad MER VOR 260 rad
Cathedral Int	SNS VORTAC 009 rad ROM VOR 315 rad OAK VORTAC 114 rad
Rancho Int	SNS VORTAC 068 rad ROM VOR 315 rad
Fowler Int	FAT VORTAC 141 rad FRA VOR 171 rad
Turlock Int	LIN VORTAC 124 rad MER VOR 353 rad

IAPA "APC" VORTAC SHUTDOWN

larch 23, VORTAC will be shut down until aprxly March 25. For substi-ite route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
-87...	SFO VOR to Lake Int	SFO VOR to Lake Int via SFO VOR 343 rad	5,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
apa VORTAC	None	
ake Int	SFO VOR 343 rad SAC VORTAC 269 rad	5,500
alistoga Int	UKI VORTAC 112 rad ILS VOR-TAC 205 rad	6,500
ordelia Int	OAK VORTAC 347 rad SAC VORTAC 227 rad	5,000
ordelia Int	OAK VORTAC 347 rad SAC VORTAC 227 rad	5,000
ay Point Int	OAK VORTAC 022 rad SCK VORTAC 268 rad	5000
ollege Int	None	
on Ramon Int	None	

SEASIDE "OCN" VORTAC SHUTDOWN

arch 1, VORTAC will be shutdown until aprxly March 5, 1965 for rehabili-ation. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
ways				
23...	SAX VORTAC to OCN VORTAC	SAN VORTAC to Tmpry OCN Int via SAN VOR-TAC 326 rad	4,000	17,000
23, 165	OCN VORTAC to Balboa Int	Tmpry OCN Int to Balboa Int via LGB VORTAC 120 rad	4,000	17,000
25, 27	SAN VORTAC to Pacific Int	SAN VOR to Tmpry Pacific Int via SAN VOR 304 rad	2,700	17,000
27...	Pacific Int to SXC VOR	Pacific Int to SXC VOR via SXC VOR 084 rad	2,700	17,000
165..	LIF VOR to OCN VORTAC	None		
208..	SXC VOR to OCN VORTAC	SXC VOR to Tmpry OCN Int via SXC VOR 084 rad	4,000	17,000
208..	OCN VOR to JLI VOR	Tmpry OCN Int to Tmpry Vista Int via JLI VOR 263 rad	4,000	17,000
		Tmpry Vista Int to JLI VOR via JLI VOR 263 rad	7,700	17,000

Existing Reporting Points	Temporary Reporting Points	MRA
chelor Int	None	
nning Int	PSP VOR 259 rad and VCV VOR 131 rad	13,000
diff Int	SAN VORTAC 326 rad and JLI VOR 243 rad	4,000
utilus Int	None	
N VORTAC	Tmpry OCN Int: SAN VORTAC 326 and JLI VOR 263 rad	4,000
Pacific Int	SAN VORTAC 304 and SXC VOR 084 rad	2,700
Perris Int	LGB VORTAC 080 rad and VCV VOR 154 rad	10,800
Redfin Int	SAN VORTAC 304 rad and JLI VOR 239 rad	2,500
Sargo Int	None	
Triton Int	SAN VORTAC 304 rad and JLI VOR 252 rad	2,500
Vista Int	LIF VOR 340 rad and JLI VOR 263 rad	4,000

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-1....	SAN VORTAC to OCN VORTAC	SAN VORTAC to Tmpry OCN Int via SAN VOR-TAC 326 rad	18,000	45,000
J-1....	OCN VORTAC to LAX VORTAC	Tmpry OCN Int to LAX VORTAC via LAX VOR-TAC 114 rad	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
OCN VORTAC	Tmpry OCN Int: SAN VORTAC 326 rad and JLI VOR 263 rad	18,000

ILLINOIS

JOLIET "JOT" VORTAC SHUTDOWN

March 15, VORTAC will be shutdown until aprxly March 19, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-8, 116	API VOR to JOT VOR	API VOR to Tmpry JOT Int via API 212 rad	2,000	17,500
V-88, 173, 282	EDZ Rbn to Big Run Int	MX Rbn to Tmpry Big Run Int via MX Rbn 246 Brg	2,000	17,500
V-88, 282	Big Run Int to JOT VOR	Big RunInt to Tmpry JOT Int via MX Rbn 246 Brg	2,000	17,500
V-8, 92	CGT VOR to JOT VOR	CGT VOR to Tmpry JOT Int via CGT 272 rad	2,300	17,500
V-38, 171	EON VOR to JOT VOR	EON VOR to Tmpry JOT Int via EON 303 rad	2,100	17,500
V-428..	RBS VOR to JOT VOR	RBS VOR to Tmpry JOT Int via RBS 350 rad	3,300	17,500
V-8, 88	PNT VOR to JOT VOR	PNT VOR to Tmpry JOT Int via PNT 020 rad	2,500	17,500
V-116..	Washburn Int to Marseilles Int	Washburn Int to Tmpry Marseilles Int via PIA 048 rad	3,000	17,500
V-116..	Marseilles Int to JOT VOR	None		

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-845, 262	BDF VOR to JOT VOR	BDF VOR Tmpry JOT Int via BDF 064 rad	3,300	17,500
V-38...	Annawan Int to Triumph Int	Annawan Int to Tmpry Triumph Int via MLI 077 rad	4,000	17,500
V-38...	Triumph Int to JOT VOR	None		
V-8, 171	Malta to JOT VOR..	Malta Int to Tmpry JOT Int via RFD 133 rad	3,000	17,500
V-429	Bartlett Int to JOT VOR	None		

The following direct routes are authorized:

Marseilles Int to API VOR via API 222 rad	3,000	17,500
Bartlett Int to API VOR via API 338 rad	2,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
JOT VOR	API 212 rad and EON 303 rad...	2,000
Big Run Int	API 133 rad and MX Rbn 246 Brg	2,000
Manteno Int	EON 303 rad and RBS 005 rad..	2,500
Morris Int	PNT 020 rad and EON 270 rad..	2,500
Marseilles Int	PIA 048 rad and PNT 349 rad...	3,000
Hinckley Int	RFD 133 rad and API 267 rad...	3,000
Bartlett Int	API 338 rad and ORD 275 rad...	2,500
Warren Int	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-30...	ODI VOR to JOT VOR	ODI VOR to Tmpry JOT Int via ODI 131 rad	18,000	45,000
J-82...	Int of J-30 and J-82 to JOT VOR	Int of J-30 and J-82 to Tmpry JOT Int via ODI 131 rad	18,000	45,000
J-35, 87,	OBK VOR to JOT VOR	OBK VOR to Tmpry JOT Int via OBK 202 rad	18,000	45,000
J-30...	FWA VOR to JOT VOR	FWA VOR to Tmpry JOT Int via FWA 284 rad	18,000	45,000
J-35, 101	CAP VOR to JOT VOR	CAP VOR to Tmpry JOT Int via CAP 028 rad	18,000	45,000
J-18, 26, 87	BDF VOR to JOT VOR	BDF VOR to Tmpry JOT Int via BDF 064 rad	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
JOT VOR	BDF 064 rad and OBK 202 rad.	18,000

INDIANA

SHELBYVILLE "SHB" VOR SHUTDOWN

February 23, VOR will be shutdown until aprxly Feb 27, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-12, 802	RID VOR to SHB VOR	RID VOR to Tmpry SHB Int via RID 261 rad	3,000	15,000
V-97...	Morris Int to SHB VOR	Morris Int to Tmpry SHB Int via CVG 306 rad	5,000	17,500
V-51, 819	ABB VOR to SHB VOR	ABB VOR to Tmpry Hope Int VIA ABB 351 rad	3,000	17,500
		Tmpry Hope Int to tmpry SHB Int via ABB 351 rad	5,000	17,500
V-12, 124, 802	Wilbur Int to SHB VOR	Wilbur Int to Tmpry Banta Int via LEU 070 rad	3,000	17,500
		Tmpry Banta Int to Tmpry Whiteland Int via LEU 070 rad	4,000	17,500
		Tmpry Whiteland Int to Tmpry SHB Int via LEU 070 rad	5,000	17,500
V-97W	IND VOR to SHB VOR	IND VOR to Tmpry SHB Int VIA IND 112 rad	2,900	17,500
V-51, 97 97W, 819	LAF VOR to Stockwell Int	LAF VOR to Tmpry Stockwell Int via LAF 133 rad	2,900	14,000
V-51, 97 97W, 819	Stockwell Int to Lebanon Int	Tmpry Stockwell Int to tmpry Lebanon Int via LAF 133 rad	2,900	14,000
V-51, 97, 819	Lebanon Int to SHB VOR	Tmpry Lebanon Int to Tmpry Zionsville Int via LAF 133 rad	3,000	14,000
		Tmpry Zionsville Int to Temp SHB Int via LAF 133 rad	6,500	14,000
V-11E..	Pendleton Int to Fairmount Int	Tmpry Pendleton Int to MZZ VOR via MZZ 187 rad	3,300	12,000

Existing Reporting Points	Temporary Reporting Points	MRA
SHB VOR	IND 112 and BMG 049 rad	2,[illegible]
Castleton Int	OKK 177 and IND 068 rad	2,[illegible]
Maxwell Int	IND 083 and MZZ 187 rad	2,[illegible]
Pendleton Int	IND 068 and MZZ 187 rad	3,[illegible]
Brooklyn Int	LEU 070 and IND 184 rad	3,[illegible]
Banta Int	LEU 070 and IND 169 rad	3,[illegible]
Whiteland Int	LEU 070 and IND 136 rad	4,[illegible]
Morgantown Int	IND 169 and BMG 047 rad	2,[illegible]
Hope Int	ABB 351 and BMG 073 rad	3,[illegible]
Stockwell Int	LAF 133 and EPT 096 rad	2,[illegible]
Lebanon Int	LAF 133 and OKK 219 rad	2,[illegible]
Zionsville Int	LAF 133 and IND 021 rad	3,[illegible]

MASSACHUSETTS

BOSTON "BOS" VORTAC SHUTDOWN

March 4, VORTAC will be shutdown until aprxly March 15, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-3....	BOS VOR to Ipswich Int	029. brg from BOS RBN to Ipswich Int	2,000	17,500

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
	Ipswich Int to ENE VOR	029. brg from BOS RBN to ENE VOR 212 rad to ENE VOR	3,000	17,500
	BOS VOR to Millbury Int	269. brg from BOS RBN to Millbury Int	3,000	17,500
-141..	BOS VOR to Cohasset Int	150. brg from BOS RBN to Cohasset Int	2,000	17,500
	Cohasset Int to HYA VOR	150. brg from BOS RBN to HYA VOR 348 rad to HYA VOR	3,000	17,500
-451..	BOS VOR to HTM VOR	194. brg from BOS RBN to HTM VOR 014 rad to HTM VOR	2,000	17,500
-16...	BOS VOR to Woonsocket Int	236. brg from BOS RBN to Woonsocket Int	2,000	17,500
-2...	BOS VOR to Leominster Int	296. brg from BOS RBN to Leominster Int	2,700	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
)S VOR	BOS RBN	1,000
ıpper Int	103. brg from BOS RBN and HTM VOR 056 rad	1,500
pe Int	116. brg from BOS RBN and 029. brg from TUK RBN	4,000
swich Int	029. brg from BOS RBN and MHT VOR 13d2 ra	1,800
hasset Int	150. brg from BOS RBN and HTM VOR 056 rad	2,000
ant Rock Int	150. brg from BOS RBN and HTM VOR 099 rad	3,000
ilpole Int	236. brg from BOS RBN GDM VOR 138 rad	1,800
tick Int	269. brg from BOS RBN and GDM VOR 128 rad	3,000
mingham Int	269. brg from BOS RBN and PUT VOR 057 rad	3,000
stboro Int	269. brg from BOS RBN and GDM VOR 146 rad	3,000
lbury Int	HFD VOR 057 rad and GDM VOR 164 rad, or "OR" (Worcester LOM)	3,000
ddleton Int	359. brg from BOS RBN and GDM VOR 101 rad	1,500
verhill Int	359. brg from BOS RBN and MHT VOR 132 rad	1,800
vere Int	029. brg from BOS RBN and BED ILS Back Course	1,000
rblehead Int	065. brg from BOS RBN and MHT VOR 145 rad	1,000
gnolia Int	065. brg from BOS RBN and MHT VOR 132 rad	1,500

High Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
97..	BOS VORTAC to ACK VORTAC	166. brg from BOS RBN to TUK RBN	18,000	45,000
J-97...	BOS VORTAC to PLB VORTAC	339. brg from BOS RBN to PLB VORTAC 159 rad to PLB	18,000	45,000
J-82	BOS VORTAC to ALB VORTAC	339. brg from BOS RBN to ALB VORTAC 097 rad to ALB	18,000	45,000
J-77 ..	BOS VORTAC to HUO VORTAC	267. brg from BOS RBN to HUO VORTAC 080 rad to HUO	18,000	45,000
J-77 .	BOS VORTAC to ENE VOR	029 brg from BOS RBN to ENE VOR 212 rad to ENE	18,000	45,000
J-16, 94	BOS VORTAC to ALB VORTAC	296. brg from BOS RBN to ALB VORTAC 113 rad to BOS	18,000	45,000
J-575 .	BOS VORTAC to JFK VORTAC	246. brg from BOS RBN to JFK VORTAC 061 rad to JFK	18,000	45,000
J-575, CAE 1141	BOS VORTAC to QI VOR	080. brg from BOS RBN to QI VOR 270 rad to QI	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
BOS VORTAC	BOS RBN	18,000
Cape Intersection	116. brg from BOS RBN and 029. brg from TUK RBN	18,000

HYANNIS HYA VOR SHUTDOWN

About April 1 VOR will be shutdown until aprxly April 12 for freq change to 108.6 mc. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-141..	HYA VOR to BOS VOR 148 rad	344. brg from HY LOM to BOS VOR 148 rad	3,000	17,500
	ACK VOR to HYA VOR	ACK VOR 357 rad to HYA VOR	1,800	17,500
V-167..	Dennis Int to HYA VOR	MVY VOR 060 rad to HYA VOR	2,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
HYA VOR	ACK VOR 357 rad and MVY VOR 060 rad	2,000
Craigville Int	ACK VOR 357 rad and MVY VOR 080 rad	1,800
Dennis Int	PVD VOR 115 rad and MVY VOR 060 rad	2,500
Muskeget Int	None	

NANTUCKET ACK VORTAC SHUTDOWN

About March 4, VORTAC will be shutdown until aprxly March 15 for freq/channel change to 117.7 mc/124. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-46...	ACK VORTAC to Clam Int	ACK Int to TUK RBN 270 Brg from TUK RBN to Clam Int	2,000	17,500
	Clam Int to Oyster Int	270_ Brg from TUK RBN to Oyster Int	2,000	17,500
	Oyster Int to HTO VORTAC 096 rad	270_ Brg from TUK RBN to HTO VORTAC 096 rad	2,000	17,500
V-146..	MVY VOR to ACK VORTAC	MVY VOR 119 rad to ACK Int	2,000	17,500
V-141..	Craigville Int to ACK VOR	HYA VOR 178 rad to ACK Int	1,900	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
ACK VORTAC	MVY VOR 119 rad and HYA 178 rad	2,000
Oyster Int	270_ Brg from TUK RBN and PVD VOR 180 rad	2,000
Cape Int	116 brg BOS RBN and HYA VOR 046 rad	4,500
Clam Int	270_ Brg from TUK RBN and MVY VOR 180_ rad	2,000
Tower Int	096_ Brg from TUK RBN and HYA VOR 144 rad	2,000

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-62...	JFK VORTAC to ACK VORTAC	JFK VORTAC 087 rad to HTO VOR. HTO VOR 092 rad to ACK Int	18,000	45,000
J-97...	BOS VORTAC to ACK VORTAC	346 brg from TUK RBN to BOS RBN	18,000	45,000
J-68...	PVD VOR to ACK VORTAC	PVD VOR 126 rad to ACK Int	18,000	45,000
J-585..	ACK VORTAC to QI VOR	069 brg from TUK RBN to QI RBN	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
ACK VORTAC	MVY VOR 119 rad and HYA VOR 178 rad	18,000
Cape Int	029 brg from TUK RBN and the 116 brg from BOS RBN	18,000

MICHIGAN

CARLETON "CRL" VORTAC SHUTDOWN

VORTAC shutdown. For substitute route structure during shutdown use the flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-98...	QG VOR to CRL VOR	QG VOR to Temp CRL Int via QG 250R	2,500	17,5
V-224..	Tilbury Int to CRL VOR	None		
V-10, 188	Gill Int to Trout Int	Gill Int to Temp Trout Int via JFN 283R	5,000	17,5
V-10, 188	Trout Int to CRL VOR	None		
V-297..	St. George Int. to CRL VOR	None		
V-275..	VWV VOR to CRL VOR	VWV VOR to Temp CRL Int via VWV 015R	2,500	17,5
V-10...	Adrian Int to CRL VOR	Temp Adrian Int to Temp CRL Int via QG 250R	4,000	17,5

Existing Reporting Points	Temporary Reporting Points	MRA	MAA
CRL VOR	QG 250R, SVM 168R	2,500	17,5
Samaria Int	None		
Adrian Int	VWV 331R, SVM 210R	4,000	17,5
Dundee Int	VWV 357R, QG 250R	3,000	17,5
Canard Int	SVM 124R, QG 204R	2,500	17,5
Essex Int	None		
Detroit River Int	SVM 143R, QG 227R	2,500	17,5
Pelee Int	SVM 124R, SKY 010R	3,000	17,5
Trout Int	QG 137R, SKY 014R	3,000	17,5
Crest Int	SVM 143R, VWV 050R	3,000	17,5
St. George Int	STG 309R, SKY 008R	3,000	17,5

JACKSON JXN VOR SHUTDOWN

March 1, VOR will be shutdown until aprxly March 5, 1965, for substitu route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-45...	Leslie Int to JXN VOR	Leslie Int to Tmpry JXN Int via LAN 161R	3,000	17,5
V-100, 116, 221	SVM VOR to JXN VOR	SVM VOR to Tmpry JXN Int via SVM 259R	3,000	17,50
V-45...	Adrian Int to JXN VOR	None		
V-221..	LFD VOR to JXN VOR	LFD VOR to Tmpry JXN Int via LFD 051R	3,000	17,50
V-100, 116	Leroy Int to JXN VOR	Leroy Int to Tmpry JXN Int via ELX 084R	8,000	17,50

Continued on next page

KALAMAZOO "AZO" VOR SHUTDOWN

Mar 8, VOR will be shut down until aprxly Mar 12 for mod. For substitute route structure during shutdown use the flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-286..	SBN VOR to AZO VOR	SBN 050 rad to Tmpry AZO Int.	3,000	17,500
V-286..	GRR VOR to AZO VOR	GRR 185 rad to Tmpry AZO Int.	3,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
AZO VOR.....	BTL 254 and PMM 119 rad	3,000
Centreville Int.....	SBN 075 and GSH 038 rad	3,000

SAULT STE MARIE SMM VOR SHUTDOWN

March 22, VOR will be shutdown until aprxly March 26, for substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-308, 482	FSP VOR to SSM VOR	FSP VOR to SSM Rbn via FSP 122R and SSM Rbn 301 Brg	2,300	17,500
V-308N	FSP VOR to SSM VOR	FSP VOR to SSM Rbn via FSP 088R and SSM Rbn 330 Brg	2,400	17,500
V-193..	PLN VOR to SSM VOR	PLN VOR to SSM Rbn via PLN VOR 006R and SSM Rbn 211 Brg	2,600	17,500
V-308..	VV VOR to SSM Rbn	VV VOR to SSM Rbn via VV 315R and SSM Rbn 129 Brg	6,000	17,500
V-308N	VV VOR to SSM Rbn	VV VOR to SSM Rbn via via R-23 to ZE LFR, thence via ZE LFR NW course & SSM 116 Brg	6,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SSM VOR.....	SSM Rbn.....	2,300
Pine Int.....	None	
St. Joseph Int.....	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-101..	GRB VOR to SSM VOR	GRB VOR to SSM Rbn via GRB 053R & SSM Rbn 240 Brg	18,000	45,000
J-500, HL-500	QT LFR to SSM VOR	QT LFR to SSM Rbn via QT LFR 295 Brng & SSM Rbn 305 Brg	18,000	45,000
J-500 HL-500	ZE LFR to SSM VOR	ZE LFR to SSM Rbn via ZE LFR NW course & SSM Rbn 116 Brg	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
SSM VOR.....	SSM Rbn.....	18,000

MINNESOTA

NODINE "ODI" VORTAC SHUTDOWN

VORTAC shutdown until aprxly Feb 29 for mod. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-170-82	DLL VOR to ODI VOR	DLL VOR to ODI Int via DLL VOR 284 rad	4,000	17,500
V-2-87-863	Prescott Int to ODI VOR	Prescott Int. to ODI Int via MSP VOR 125 rad	9,500	17,500
V-2-87-171-863	LNR VOR to ODI VOR	LNR VOR to ODI Int via LNR VOR 298 rad	3,100	17,500
V-129..	EAU VOR to ODI VOR	EAU VOR to ODI Int via EAU VOR 176 rad	3,900	17,500
	Caledonia Int to ODI VOR	Caledonia Int to ODI Int UKN VOR 360 rad	3,100	17,500
V-82...	Chatfield Int to ODI VOR	Chatfield Int to ODI Int via RST VOR 076 rad	3,100	17,500
V-171..	FGT VOR to ODI VOR	FGT VOR to ODI Int via FGT VOR 114 rad	8,000	17,500
V-2N .	El Paso Int to ODI VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
ODI VOR.....	Tmpry ODI Int—UKN VOR 360 rad & RST VOR 076 rad	2,700
Westby Int	LNR VOR 298 rad and UKN VOR 048 rad	3,100
Elba Int.....	FGT VOR 114 rad and RST VOR 046 rad	8,000
Winona Int.....	MSP VOR 125 rad and RST VOR 061 rad	9,500
Arcadia Int....	EAU VOR 176 rad and RST VOR 061 rad	3,900
Preston Int.....	None	
Granger Int.....	None	
Dodge Int.....	None	
Goodhue Int.....	FGT VOR 114 rad and RST VOR 351 rad	2,300

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-28-34-36	MSP VOR to ODI VOR	MSP VOR to ODI Int via MSP VOR 125 RAD	24,000	41,000
J-34-36	ODI VOR to MKE VOR	ODI Int to MKE VOR via MKE VOR 289 RAD	24,000	41,000
J-36	ODI VOR to JOT VOR	None		

Existing Reporting Point	Temporary Reporting Point	MRA
ODI VOR.....	Tmpry ODI Int—MSP VOR 125 RAD and MCW VOR 052 RAD	24,000

MISSOURI

MARYLAND HEIGHTS "MTS" VOR SHUTDOWN

February 23, VOR will be shutdown until aprxly February 27, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-12, 802	REA VOR to MTS VOR	REA VOR to Tmpry MTS Int via REA VOR 091 rad	2,600	17,500
V-12, 802	TOY VOR to MTS VOR	TOY VOR Tmpry MTS Int via TOY VOR 259 rad	2,300	17,500
V-12S	REA VOR to MTS VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
MTS VOR	Tmpry MTS Int—TOY VOR 259 rad and STL VOR 208	2,300
Howell Int	REA VOR 091 rad and STL VOR 229 rad	2,600
Monroe Int	RCW VOR 354 rad and STL VOR 276 rad	2,600
Osage Int	None	
Park Int	TOY VOR 251 rad and STL VOR 131 rad	2,100
St. Paul Int	STL VOR 276 rad and RCW VOR 360 rad	1,800
Hartford Int	None	

NEW JERSEY

STILLWATER "STW" VORTAC SHUTDOWN

About March 4, VORTAC will be shutdown until aprxly March 15, 1965 for freq/channel change to 109.6 mc/33. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-153	LGA VOR to AVP VOR	None		
V-226	JFK VOR to TOH VOR	None		
V-804	STW VOR to TOH VOR	None		

Temporary Routes		MEA
TVE VOR to Budd Lake Int	Via the TVE VOR 103 rad to Tmpry Budd Lake Int	2,600
SAX to Budd Lake Int	Via SAX VOR 205 rad to tmpry Budd Lake Int	2,500

Existing Reporting Points	Temporary Reporting Points	MRA
Budd Lake Int	SAX VOR 205 rad and TVE VOR 103 rad	2,500

OREGON

NEWPORT "ONP" VOR SHUTDOWN

About Mar 22, VOR will be shut down until aprxly Mar 26 for mod. For substitute route structure during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-27	OTH VOR to AST VOR	OTH VOR to AST VOR via OTH VOR 344 rad and AST VOR 163 rad	10,000	17,500
Changeover point--51NM from AST.				
V-99	UBG VOR to ONP VOR	UBG VOR to ONP Int via UBG VOR 204 rad	7,000	17,500
Control Area 1419:		Control Area 1419 will be without course guidance during period of shutdown.		

Existing Reporting Points	Temporary Reporting Points	MRA
ONP VOR	Tmpry ONP Int: UBG VOR 204 rad and EUG VOR 287 rad	7,000
Kings Valley Int	Tmpry Airline Int: UBG VOR 183 rad and 240 M brg from SL LOM	4,000

PENNSYLVANIA

CLARION "CIP" VOR

Due to restriction on new VOR freq 112.9 mc the following substitute route is efctv immediately:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-119, 804	CIP VOR to IRL VORTAC	CIP VOR to IRL VORTAC via CIP 228 and IRL VORTAC 047 rad		see below
MEA IRL to Freeport Int 3,000.		Freeport Int to CIP 3,300, MAA 17,500.		

Existing Reporting Points	Temporary Reporting Points
Freeport Int	EWC VORTAC 120 rad and IRL VORTAC 047 rad

LANCASTER "LRP" VOR SHUTDOWN

About Apr 1, VOR will be shut down until aprxly Apr 12, 1965 for freq change to 117.3 mc. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-39-93	ABE VORTAC to LRP VOR	ABE VORTAC 237 rad to Tmpry LRP Int	4,000	17,500
V-39	EMI VOR to LRP VOR	EMI VOR 047 rad to Tmpry LRP Int	3,000	17,500
V-93	BAL VORTAC to	None		
V-251	PTW VOR to LRP VOR	PTW VOR 269° rad to Tmpry LRP Int	3,000	17,500
	LRP VOR to MRB VORTAC	None		

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-474	THS VOR to Big Mount Int	THS VOR 088 rad to Tmpry Big Mount Int	5,000	17,500
	Big Mount Int to LRP VOR	None	5,000	17,500
V-1628	ABE VORTAC to Reinholds Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
ork Springs Int	THS VOR 088° rad and HAR VORTAC 204° rad	3,000
ig Mount Int	THS VOR 088° rad and HAR VORTAC 173° rad	3,000
anover Int	None	
elrose Int	None	
orris Int	None	
einholds Int	ABE VORTAC 237° rad and PTW VOR 284° rad	4,000
eetwood Int	RAV VORTAC 111° rad and ABE VORTAC 237° rad	4,000
ampton Int	HAR VORTAC 204° rad THS VOR 096° rad	3,000
RP VOR	Tmpry LRP Int: PTW VOR 269. rad and RAV VORTAC 160. rad	3,000
ney Brook Int	ESR VORTAC 331. rad and PTW VOR 269° rad	2,100

URDLEY "ARD" VORTAC SHUTDOWN

out Mar 4, VORTAC will be shut down until aprxly Mar 16, 1965 for q channel change to 112.7 mc/74. For substitute route structure during utdown, use flwg:

Low Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
433	EWT VORTAC to Rocky Hill Int	Via EWT VORTAC V-433 to Int of V-147, thence direct to PNE VOR, PNE VOR 049 rad to tmpry Rocky Hill Int (Holding SW on PNE 049 rad)	4,000	17,500
276	RAV VORTAC to RBV VORTAC	Via RAV VORTAC 111 rad to EWT VORTAC 053 rad, thence direct RBV VORTAC	4,000	17,500
256	Warrington Int to ARD VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
nboy Int	COL VORTAC 355 rad and SBJ VORTAC 104 rad	2,000
ams Int	None	
stol Int	None	
rman Int	None	
bin Int	None	
enbank Int	None	
-Line Int	None	
Kilmer Int	None	
Marshall Int	None	
Old Star Int	None	
Rocky Hill Int	PNE VOR 049 rad and COL VORTAC 294 rad and EWT VORTAC 053 rad	4,000
Somerton Int	PTW VOR 113 rad and EWT VORTAC 053 rad	2,400
ARD VORTAC	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-6, 8, 42	FRR VORTAC to JFK VORTAC	Via FRR VORTAC 071 rad and JFK VORTAC 259 rad	FL240	FL450
J-84	EWC VORTAC to JFK VORTAC	None		

Existing Reporting Points	Temporary Reporting Points	MRA
ARD VORTAC	Tmpry ARD Int—JFK VORTAC 259 rad and ABE VORTAC 148 rad	FL240/300

UTAH

BRYCE CANYON "BCE" VORTAC SHUTDOWN

About Mar 11, VORTAC will shut down until aprxly Mar 20, 1965 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-8	Hurricane Int. to HVE VORTAC	None		
V-86	BCE VORTAC to HVE VORTAC	None		
V-8N	CDC VOR to BCE VORTAC	None		
V-257	Anita Int. to Delano Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Delano Int	MLF 072 and DTA 175 rad	12,000
Summit Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-11	PRC VORTAC to BCE VORTAC to PVU VORTAC	PRC VORTAC to MLF VORTAC via PRC 338 and MFL 157 rad	FL180	450
Changeover Point: 130 NM from PRC				
J-68	ILC VOR to BCE VORTAC to FMN VORTAC	ILC VOR to MLF VOR via J80	FL180	450
		MLF VOR to FMN VORTAC via MLF 096 rad and FMN 279 rad	*FL330	450
Changeover Point: 63NM from MLF				

(OR)

Continued on next page

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-58...	ILC VOR to BCE VORTAC to FMN VORTAC	ILC VOR to MLF VORTAC via J80	FL180	450
		VORTAC via MLF 072 rad and HVE 254 rad MLF VORTAC to HVE	FL180	450
Changeover Point: 50NM from MLF				
		HVE VORTAC to FMN VORTAC via HVE 113 rad and FMN 296 rad	*FL180	450
J-60...	BLD VOR to BCE VORTAC to HVE VORTAC	BLD VOR to HVE VORTAC via BLD 038 rad and HVE 220 rad	*FL180	450
Changeover Point: 153 NM from BLD				

NOTE--* MEA is established with a gap in navigational signal coverage

VIRGINIA

PULASKI "PSK" VOR SHUTDOWN

VORTAC shut down for freq/channel change to 115.9mc/106. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	FML VOR to PSK VOR	Unusable		
	PSK VOR to EKN VOR	020 Brg from PK LFR to intercept 199 rad EKN to EKN	8,000	17,500
V-16...	HMV VOR to ROA VOR	HMV 062 rad and ROA 248 rad	7,000	17,500
V-16N..	BLA VOR to PSK VOR	Unusable		
V-37W..	HKY VOR to PSK VOR	Unusable		
V-45...	BLF VOR to GSO VOR	BLF 123 rad to intercept 303 Brg to PK LFR to PSK; 148 Brg from PK LFR to intercept GSO 337 rad to GSO	6,000	17,500
V-69...	BKW VOR to PSK VOR	BKW 157 rad to tmpry PSK Int	6,000	17,500
V136..	PSK VOR to SBV VOR	098 Brg from PK LFR to intercept SBV 302 rad to SBV	5,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VORTAC	ROA 248 rad and BKW 157 rad	6,000 17,500

Jet Routes

Airways	Existing Routes	Substitute Routes	MEA	MAA
J-53...	AGC to SPA.....	195 rad AGC to intercept 013 brg to PK LFR to thence 206 brg from PK LFR to intercept PSK; 026 rad SPA to SPA	FL180	FL450
	CRW to RDU.....	149 rad CRW to intercept 313 rad RDU to RDU	FL180	FL450
22...	TYS to GVE.....	064 rad TYS to intercept 252 rad GVE to GVE	FL180	FL450
J-48...	HRN VORTAC to PSK VORTAC	HRN VORTAC to PK LFR via HRN VORTAC 241 rad and 056 Brg from PK LFR	180	450

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VORTAC.....	PK LFR.....	180
PSK VORTAC.....	GVE VORTAC 252 rad and GSO VOR 334 rad	180

WASHINGTON

WENATCHEE "EAT" VOR SHUTDOWN

About Mar 1, VOR will be shutdown until aprxly Mar 5, 1965 for rehabilitation. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-2N..	SEA VOR to EPH VOR	SEA VOR to EPH VOR via 069 rad SEA VOR and 252 rad EPH VOR to Cashmere Int	12,000	17,500
		thence via 252 rad EPH VOR to EAT Int	9,000	17,500
		thence via 252 rad EPH VOR to EPH VOR	5,500	17,000
V-25...	ELN VOR to EAT VOR	ELN VOR to EAT Int via via 002 rad ELN VOR	9,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
EAT VOR.....	Tmpry EAT Int--002 rad ELN VOR and 252 rad EPH VOR	9,000
Cashmere Int.....	339 rad ELN VOR and 252 rad EPH VOR	12,000
Beehive Int.....	002 rad ELN VOR and 243 rad EPH VOR	9,000
Quincy Int.....	None	

WEST VIRGINIA

ELKINS "EKN" VORTAC SHUTDOWN

About Apr 1, VORTAC will be shut down until aprxly Apr 12, 1965 for freq/channel change to 112.8 mc/75. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	MGW VOR-EKN VOR-PSK VOR	None		
V-103..	CKB VOR to EKN VOR	Via CKB VOR 163 rad to MGW VOR 201 rad	5,000	17,500
	EKN VOR to ROA VOR	Via CKB VOR 163 rad to ROA VOR 003 rad to ROA	9,000	17,500
V-38...	PKB VOR to EKN VOR	Via PKB VOR 121 rad to MGW VOR 201 rad	5,000	17,500
V-174..	HNN VOR to EKN	Via HNN VOR 086 rad to	8,000	17,500

ways	Existing Airways	Substitute Routes	MEA	MAA
	VOR to LDN VOR	CKB VOR 163 rad thence via LDN VOR 279 rad		
	CRW VOR to EKN VOR to ESL VOR	Via CRW VOR 069 rad to CKB VOR 163 rad thence via ESL VOR 256 rad	6,000	17,500
S.	CRW VOR-EKN VOR	None		
56	EKN VOR–GVE . . .	Via MGW VOR 201 rad and GVE VOR 307 rad	14,000	17,500

ays	Existing Reporting Points	Temporary Reporting Points	MRA	MAA
7, !	EKN VOR . . .	MGW VOR 201 rad/PKB VOR 121 rad	6,000	17,500
13	EKN VOR . .	MGW VOR 201 rad/CKB VOR 163 rad	5,000	17,500
36	EKN VOR	MGW VOR 201 rad GVE 307 rad	14,000	17,500

WISCONSIN

EN BAY "GRB" VOR SHUTDOWN

t Mar 1 VOR will be shutdown until aprxly Mar 5. For substitute structures during shutdown use the following:

Low Altitude

ays	Existing Airways	Substitute Routes	MEA	MAA
	MNM VOR to GRB VOR	MNM VOR to GRB Int. via MNM VOR 212 rad	4,200	17,500
	Calvary Int. to GRB VOR	Calvary Int. to GRB Int. via MKE VOR 002 rad	7,000	17,500
	OSH VOR to GRB VOR	OSH VOR to GRB Int. via OSH VOR 023 rad	4,200	17,500
; . .	STE VOR to GRB VOR	STE VOR to GRB Int. via STE VOR 086 rad	4,200	17,500
	MKG VOR to GRB VOR	Nonc		
; .	Wittenberg Int. to GRB VOR	Wittenberg Int. to GRB Int. via AUW VOR 104 rad	4,400	17,500
	HIC VOR to GRB VOR	None		

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-217 . .	RHI VOR to GRB VOR	RHI VOR to GRB Int. via RHI VOR 139 rad	8,200	13,500
	GRB VOR to Wall Eye Int	None		
V-450 . .	GRB VOR to MKG VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
GRB VOR	OSH VOR 023 rad and and STE VOR 086 rad	4,200
Chilton Int	MKE VOk 002 rad and OSH VOR 066 rad	7,000
Sherwood Int	MKE VOR 002 rad and OSH VOR 041 rad	7,000
Little Chute Int	OSH VOR 023 rad and STE VOR VOR 104 rad	4,200
Bear Creek Int	STE VOR 086 rad and OSH VOR 356 rad	4,200
Wolf Int	AUW VOR 104 rad and OSH VOR 359 rad	4,400
Cecil Int	RHI VOR 139 rad and MNM VOR 240 rad	8,200
Pine Grove Int . .	None	
Nero Int	None	
Nicollet Int	None	
Larrabee Int	None	
Franklin Int	None	
Collins Int	None	
Waffle Int	None	
Big Falls Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes
J-101 . .	SSM VOR to GRB VOR	None
	MKE VOR to GRB VOR	None
J-36 . . .	ECK VOR to GRB VOR	None
	DLH VOR to GRB VOR	None
J-106 .	MSP VOR to GRB VOR	None

Existing Reporting Point	Temporary Reporting Point	MRA
GRB VOR	None	

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

•ABERDEEN

39th Edition, March 4, 1965

No hazardous changes.

•ALBANY

54th Edition, February 4, 1965

Delete Brizee-Harmon arpt 43°05'N, 77°29'W. Delete Deposit arpt 42°03'N, 75°25'W. Change Utica VOR freq 113.9 to 108.6. Add obstn 1430' MSL 42°23'15''N, 72°24'14''W. Add obstn 1275' MSL 43°39'24''N, 73°10'-12''W. In western border change Buffalo VORTAC freq 116.5 Ch 112 to 116.4 Ch 111.

•ALBUQUERQUE

54th Edition, March 4, 1965

Delete 700' transition area at Otto VOR.

•AROOSTOOK

41st Edition, April 30, 1964

Delete Green arpt 46°02'N, 68°16'W. Realign Red 9 airway direct from Montmorency RBn to Bagotville RBn. Add obstn 740' MSL 46°09'00''N, 70°12'17''W. Add obstn 525' MSL 46°10'45''N, 71°20'00''W. Add obstn 625' MSL 46°52'50''N, 71°19'35''W. Add obstn 349' MSL 47°00'00''N, 70°31'00''W. Add obstn 433' MSL 47°16'40''N, 70°12'00''W. Add obstn 593' MSL 46°-36'05''N, 65°55'50''W. Add Burtts RBn freq 350, ident LI, class MHW 46°03'52''N, 66°52'13''W. Add Charlo (Pvt) RBn freq 203, ident CL, class HW 47°59'N, 66°20'W. Extend Loring AFB Military Climb Corridor R-3902 1 mi S & 6 mi N. Realign Fredericton LFR W leg from 103°M to 096°M. Delete Presque Isle LFR 46°44'N, 68°04'W. Add Quebec VOR freq 112.8, ident QB class BVOR M.V. 19°W 46°42'20''N, 71°37'36''W. Realign airway V 318 direct from Houlton to Quebec Add V314 airway direct from MILLINOCKET to QUEBEC (135°M QUEBEC).

•AUSTIN

58th Edition, November 12, 1964

Delete ALLISON RANCH arpt 30°44'N, 102°02'' Add obstn 2244' MSL 30°18'15''N, 98°51'45''W. Del SHARPS arpt 31°40'N, 97°44'W. Delete PIER Ranch arpt 30°28'N, 101°21'W. Delete Jolly arpt 30°18' 98°12'W.

•BEAUMONT

52nd Edition, September 17, 1964

Delete Saltzman arpt 29°57'N, 92°27'W. Add ob 385' MSL 30°08'19''N, 94°38'26''W. Add obstn 3 MSL 30°26'18''N, 93°47'16''W. Add obstn 329' M 30°35'47''N, 91°31'47''W. Add obstn 598' MSL 30°3 57''N, 92°08'14''W. Add obstn 347' MSL 31°03'33'' 92°08'38''W. Add obstn 525' MSL 31°33'17''N, 9 34'04''W. Add obstn 440' MSL 30°01'55''N, 94°59'37'' Add 2 obstns 467' MSL 29°59'20''N, 90°27'45''W 30°00'35''N, 90°27'22''W. Change obstn 1044' MSL 1244' MSL 30°02'38''N, 92°22'17''W. Delete La Charles ctl twr freq 109.1. Delete Esler RBn 31°19' 92°14'W. Add Fort Polk, La. ctl zone 5 mi radius wi extsns 8 mi SE & 8 mi NW of RBn. Add Navasota VO freq 109.6, ident TNV, class BVOR, M.V 8°E 30°17'20'' 96°03'30''W. Add obstn. 400' MSL 30°45'44''N, 91°20'3 W. Add obstn 435' MSL 30°07'57''N, 94°18'55''W. A obstn 625' MSL 31°40'05''N, 95°48'10''W. Add ob 265' MSL 30°10'00''N, 93°36'06''W. Add obstn 260' M 30°06'35''N, 92°47'37''W. Add obstn 1016' MSL 31°4 40''N, 95°08'35''W. NAAS NEW IBERIA ctl t decmsnd. Add obstn 437' MSL 31°20'41''N, 92°25'58'' Add obstn 449' MSL 31°55'16''N, 92°38'24''W. Add ob 400' MSL 30°31'13''N, 92°03'15''W. Add obstn 597' M 30°52'09''N, 93°17'20''W. Delete Morgan NO 2 ar 30°07'N, 93°04''W.

BELLINGHAM

50th Edition, December 10, 1964

Add circular restricted area CIR24 aprxly 1/10 radius centered at 49°13'N, 122°54'W.

•BIRMINGHAM

58th Edition, October 15, 1964

elete River arpt 33°49'N, 88°19'W. Delete Lake dy Arpt 33°29'N, 86°37'W. Change Maxwell (AF) R freq. 116.0 to 110.2. Add obstn 1026' MSL 32°41'57'' 85°40'54''W. Add obstn 600' MSL 32°27'57''N, 7'30''W. Delete Montezuma arpt 32°18'N, 84°01'W. ete Cobb Airpark arpt 33°52'N, 84°35'W. Add obstn MSL 32°01'27''N, 88°17'16''W. Change obstn 1100' L to 1260' MSL 32°38'36''N, 85°14'20''W. Change n 390' MSL to 550' MSL 32°30'00''N, 87°43'00''W.

BOISE

40th Edition, May 28, 1964

elete Dewitt Place arpt 43°28'N, 120°02'W. Delete ette FM 44°09'N, 116°55'. Delete Mountain Home 43°12'N, 115°42'W.

•BOSTON

55th Edition, May 4, 1965

o hazardous changes.

BURLINGTON

43rd Edition, November 12, 1964

xtend V196 airway from Utica to Plattsburgh via a 016° & Plattsburgh 236°T. Extend V447 airway n Montpelier, Vt. to Sherbrook, P.Q. Canada via the of Montpelier 020°T & Sherbrook 217°T. Montreal rea extended E & NE to join Quebec ctl area. Add n 610' MSL 44°35'09''N, 75°09'30''W. Add obstn 459' 44°05'40''N, 77°23'00''W. Change Massena VOR freq l to 114.1 Delete airway beacon code— —, 45°05'45''N, 5'10''W. Relocate OTTAWA VORTAC 45°26'32''N, 3'48''W revise airways & ctl area to new location.

•BUTTE

43rd Edition, February 4, 1965

rrect Great Falls VORTAC ident & code CTF —● ——● - to GTF — —● ●●—●

CASPER

48th Edition, October 15, 1964

elete airway beacon site #14, code . . . . 42°50'00''N, 58'00''W. Delete airway beacon site #18 43°07'50''N, 20'20''W. Delete Sadler arpt 43°24'N, 104°54'W. De-Cow Creek arpt 43°15'N, 104°41'W. Delete Thompson ch arpt 43°10'N, 104°36'W.

•CHARLOTTE SECTIONAL CHART

55th Edition, October 15, 1964

obstn 1057' MSL 35°18'36''N, 80°22'31''W. Add tn 1250' MSL 34°03'00''N 78°04'56''W Change DRENCE VOR freq 115.5 to VORTAC freq 115.2 ch Add TOCCA, GA transition area 5 mi W & 8 mi E be 360°T radial of TOCCA, GA VOR extending from VOR to 12 mi N. Add obstn 913' MSL 35°21'24''N, 79°46'42''W. Delete CLINTON arpt 35°01'N, 78°19'W. Delete FAYETTEVILLE RBn 34°56'N, 78°56'W. Add obstn 1333' MSL 33°52'54''N, 83°17'02''W. Delete BALLOON AAF arpt 35°11'N, 79°00'W. Add obstn 694' MSL 35°58'32''N, 78°22'29''W. Change obstn 6738' MSL to 6766' MSL 35°44'05''N, 82°17'10''W. In eastern border change highest obstn 6738' MSL to 6766' MSL.

CHATTANOOGA

55th Edition, February 4, 1965

No hazardous changes.

CHEYENNE

51st Edition, December 10, 1964

No hazardous changes.

•CHICAGO

59th Edition, December 10, 1964

Change Ft Wayne VORTAC freq 113.9 Ch 86 to 117.8 Ch 125. Delete Davis arpt 40°29'N, 88°57'W. Change Chicago O'Hare VORTAC freq 111.6 Ch 53 to 113.9 Ch. 86. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add Benton Harbor ctl zone 5 mi radius of ROSS arpt with 8 mi. extensions E & W. Add obst 1119' MSL 42°05'30''N, 85°19'16''W. Delete PEOTONE arpt 41°20'N, 87°48'W. Add Coldwater RBn freq 224 ident CWM class MHW 41°56'12''N, 85°02'56''W. Add V127 airway direct from Bradford to Polo. Delete Scott Ranch arpt 40°48'N, 85°27'W.

•CINCINNATI

59th Edition February 4, 1965

Delete Greater Cincinnati ctl twr freq 317. Delete Cincinnati Mun-Lunken ctl twr freq 366.

•CLEVELAND

59th Edition, November 12, 1964.

Delete Wheeling RBn 40°06'N, 80°11'W. Delete Tanger arpt 40°22'N, 83°47'W. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add obstn 1302' MSL 41°06'31''N, 83°36'02''W. Change Clarion VOR freq 114.9 to 112.9. Delete Bilbobern arpt 40°49'N, 80°15'W. Add Creek RBn freq 219 ident CRK class MHW 40°30'21''N, 80°25'17''W. Change Tyrone VORTAC freq 113.9 Ch 86 to 114.9 Ch 96. Add obstn 2709' MSL 41°07'21''N, 78°26'28''W. Add Indiana (Pvt) RBn freq 242 ident INP class MHW 40°37'54''N, 79°03'51''W. Delete Akron ctl twr freq 362. Change Slate Run VOR freq 113.2 to 113.9. Change Tiverton VOR freq 115.8 to 116.5.

•CORPUS CHRISTI

54th Edition, February 4, 1965

Add obstn 569' MSL 27°44'16''N, 98°05'10''W. Add obstn 474' MSL 27°32'54''N, 97°52'34''W. Change obstn elev 792' MSL to 1049' MSL 27°46'47''N, 97°37'59''W. Extend Brownsville transition area N to join Corpus Christi transition area E to W bndry of W-228.

•DALLAS

60th Edition, February 4, 1965

Add obstn 1268′ MSL 32°01′40″N, 97°44′48″W.

DEL RIO

40th Edition, November 12, 1964

No hazardous changes.

•DENVER

53rd Edition, December 10, 1964

Delete Ellicott RBn 38°49′N, 104°22′W. Delete Stapleton Intl ctl twr freq 335. Delete Pueblo ctl twr freq 285. Change obstn 44°54′ MSL to 4609′ MSL 38°29′03″N, 102°45′03″W. Add obstn 5611′ MSL 39°44′53″N, 104°59′42″W. Delete Peterson ctl twr freq 215.

•DES MOINES

52nd Edition, November 12, 1964

Add obstn 1398′ MSL 40°13′29″N, 93°07′50″W. Add obstn 1210′ MSL 40°05′06″N, 93°37′31″W. Add obstn 1353′ MSL 41°59′18″N, 92°15′42″W. Add obstn 1638′ MSL 41°38′15″N, 95°26′40″W. Add obstn 1255′ MSL 42°02′33″N, 92°51′35″W. Add obstn 1350′ MSL 42°02′09″N, 93°23′38″W. Add obstn 1430′ MSL 42°03′06″N, 93°47′48″W. Add obstn 1370′ MSL 40°10′28″N, 93°33′22″W. Add obstn 1410′ MSL 40°43′15″N, 95°54′30″W.

•DETROIT

58th Edition, January 7, 1965

Change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Delete Detroit City ctl twr freq 278. Delete Niagara Falls ctl twr freq 272. Delete Port Erie ctl twr freq 278. Add obstn 1316′ MSL 42°56′45″N, 83°09′05″W. Add obstn 1749′ MSL 42°29′01″N, 83°18′44″W. Add Kitchener RBn freq 251 ident KF class MHW 43°30′30″ N, 80°28′14″W. Change Buffalo VORTAC freq 116.5 Ch 112 to 116.4 Ch 111.

•DOUGLAS

42nd Edition, October 15, 1964

Delete Punta Penasco RBn freq 1688. Delete El Datil arpt 30°00′N, 112°10′W.

•DUBUQUE

48th Edition, September 17, 1964

Add obstn 1240′ MSL 42°23′36″N, 92°19′30″W. Add obstn 1480′ MSL 43°19′25″N, 90°42′16″W. Add obstn 2449′ MSL 44°05′28″N, 91°20′15″W. Change Dubuque VOR freq 116.1 to 109.4. Change Polo VORTAC freq 113.8 Ch 85 to 117.1 Ch 118. Add obstn 1217′ MSL 42°11′10″ N, 91°58′40″W. Change obstn elevation 1531′ MSL to 1551′ MSL 43°10′06″N, 93°07′30″W. Delete Rochester ctl twr freq 278. Add obstn 1386′ MSL 43°57′50″N, 90°51′28″ W. Delete Milroy arpt 42°11′N, 92°03′W. Add obstn 1535′ MSL 43°53′17″N, 91°22′00″W. Add obstn 1445′ MSL 43°13′19″N, 91°03′05″W. Add obstn 1255′ MSL 42°02′33″N, 92°51′35″W. Add obstn 1350′ MSL 42°02′09″N, 93°23′38″W. Add obstn 1430′ MSL 42°03′06″N, 93°47′48″W. Add obstn 1353′ M 41°59′18″N, 92°15′42″W. Add V219 airway Sioux C to Mankato (034°M Sioux City & 217°M Mankato)

•DULUTH

38th Edition, July 23, 1964

Delete Moberg SPB 47°29′N, 94°52′W. Add ob 1735′ MSL 47°53′25″N, 91°52′04″W. Revise Chisho Hibbing ctl zone with extsn 8 mi SW. Revise Chisho Hibbing transition area with 3 extsns. 13 mi. wide, mi. NE, 12 mi. SW & 18 mi NW of Chisholm-Hibb arpt. Relocate Duluth RBn 46°50′45″N, 92°21′17″W. lete Pine Haven seaplane base 46°43′N, 93°19′W. obstn 1835′ MSL 46°17′08″N, 96°02′06″W. Add transit area 4 nmi each side of a direct radial between Gr Rapids VOR & Hibbing VOR. Delete Duluth Internatio ctl twr freq 278. Realign airway Blue 9 to new Dul RBn location 46°50′45″N, 92°21′17″W. Add control extension W of Duluth International arpt 46°5 92°11′W. Add obstn 1545′ MSL 46°31′27″ N, 91°16′ W. Add obstn 1600′ MSL 46°19′20″N, 94°09′44″W. Re V462 airway Bemidji direct to DULUTH. Revise V Brainerd to Hibbing via Brainerd 016°M & Hibb 253°M.

ELKO

43rd Edition, December 10, 1964

No hazardous changes.

•EL PASO

53rd Edition, March 4, 1965

No hazardous changes.

•FARGO

42nd Edition, March 4, 1965

No hazardous changes.

GLACIER PARK

37th Edition, October 15, 1964

Delete Waterton Lake SPB 49°03′N, 113°54′W. obstn 3355′ MSL 49°42′30″N, 112°43′00″W.

GRAND CANYON

39th Edition, December 10, 1964

No hazardous changes.

•GRAND JUNCTION

41st Edition, November 12, 1964

No hazardous changes. Change Hanksville VOR freq 115.5 Ch 102 to 115.9 Ch 106. Delete airway bea site #50, code —— 39°06′N — 112°42′W. Delete D arpt beacon 39°23′N, 112°30′W. Add obstn 4788′ 38°55′15″N, 110°18′15″W.

•GREEN BAY

50th Edition, December 10, 1964

Add obstn 1448′ MSL 44°33′13″N, 89°35′27″W. De Lakeland (Private) RBn 45°55′N, 89°43′W. Add ob 1905′ MSL 45°52′52″N, 89°17′25″W. Add airway V19 from White Cloud to Traverse City via the int of W

loud 329°T & Traverse City 235°T. Add obstn 1286' SL 44°46'22''N, 85°40'48''W. Add obstn 1460' MSL 26'52''N, 89°24'23''W. Twr comsnd at Phelps-Collins pt freq 120.9 & 383.1.

HAWAIIAN ISLANDS

17th Edition, December 10, 1964

Delete Maul LFR 20°38'N, 156°27'W.

•HUNTINGTON

53rd Edition, February 4, 1965

In southern border change Beckley VOR freq 109.8 to 7.7. Change Martinsburg VORTAC freq 113.8 Ch 85 to 2.1 Ch 58. Add Cumberland RBn freq 317 ident CBE ass MHW 39°39'00''N, 78°44'48''W.

•JACKSONVILLE

51st Edition, November 12, 1964

Add obstn 395' MSL 31°49'59''N, 81°45'02''W. Add stn 546' MSL 32°03'30''N, 81°02'40''W. Add obstn 5' MSL 31°35'24''N, 82°51'26''W. Add obstn 782' MSL 31'18''N, 82°48'46''W. Add Waycross VORTAC freq 0.2 Ch 39 ident AYS Class BVORTAC MVO° 31°16'09'' 82°33'12''W.

KANSAS CITY

55th Edition, February 4, 1965

No hazardous changes.

KLAMATH FALLS

51st Edition, September 17, 1964

Twr comsnd at Mahlon Sweet arpt freqs 118.9 & 257.8. northern border change Redmond VORTAC freq 113.5 117.6 Ch 123. Delete airway bcn site no 34 code . . . . 27'N, 123°03'W. Delete Lake of Woods arpt 42°23'N, 12'W. Delete Beaver Marsh (FAA) bcn site no 78 le . . . . 43°08'N, 121°49'W.

KOOTENAI

41st Edition, February 4, 1965

No hazardous changes.

LA GRANDE

42nd Edition, February 4, 1965

No hazardous changes.

•LAKE HURON

39th Edition, May 28, 1964

Extsv airway changes have been made in the SE rner of chart. Add obstn 1083' MSL 44°50'N, 79°20'W. ld obstn 1100' MSL 44°17'N, 78°42'W. Add obstn 07' MSL 35°40'N, 79°13'W. Add obstn 1831' MSL 23'N, 78°59'W. Add obstn 1856' MSL 45°07'N, 30'W. Add obstn 1207' MSL 45°03'N, 83°43'W. ange obstn 1600' MSL to 1800' MSL 44°20'N, 78°18'W. ange Wurtsmith AF VOR freq 110.0 to 116.1. Add einburg VOR freq 114.5 ident KG, class VORW, M.V. W 43°56'N, 79°40'W. Delete Toronto LFR legs, ident YZ. Alpena, Mich. ctl area is revoked. Alpena, Mich. transition area designated 21 mi. radius of Phelps-Collins arpt. with 8 mi. extsn N. Realign V300 airway direct from KLEINBURG to WIARTON & KLEINBURG to OTTAWA. Twr comsnd at Phelps-Collins arpt freqs 120.9 & 383.1. Add V5 airway direct from Wiarton to Sudbury (013°M Wiarton).

•LAKE SUPERIOR

41st Edition, March 4, 1965

No hazardous changes.

LAKE OF THE WOODS

37th Edition, August 20, 1964

Add V129 airway direct International Falls to Kenora. Add obstn 1942' MSL 48°49'00''N, 93°53'00''W. Add V129 airway direct Kenora VOR to Kenora LFR.

LEWISTON

42nd Edition, November 12, 1964

Extend V447 airway from Montpelier, Vt. to Sherbrook, P.Q. Canada via the int of Montpelier 020°T & SHERBROOK 217°T. Extend W–102 aprxly 5 mi. NW. Add V 314 airway direct from MILLINOCKET to QUEBEC (318° M MILLINOCKET).

•LINCOLN

51st Edition, October 15, 1964

Add obstn 3034' MSL 41°40'54''N, 97°52'38''W. Add obstn 2293' MSL 41°23'37''N, 98°15'14''W. Add obstn 2288' MSL 42°02'39''N, 98°02'01''W. Delete Linoma arpt 41°04'N, 96°19'W. Add obstn 2049' MSL 48°01'33'' N, 96°27'01''W. Add obstn 1769' MSL 41°40'40''N, 95°56'29''W. Add Kearney ctl zone 5 mi radius of arpt 40°43'36''N — 99°00'31''W with extsns N & S. Add Norfolk Neb ctl zone 5 mi radius of Karl Stefan arpt 41°59'10''N, 97°26'00''W with extsns NE SE SW & NW. Add Norfolk Neb transition area within a 15 mi radius of Norfolk VOR.

•LITTLE ROCK

47th Edition, January 7, 1965

Change CABOT VOR freq & ident 109.2 LRF to 108.4 CBT. Add obstn 1080' MSL 35°35'48''N, 95°03'20''W. Delete Watts arpt 34°06'N, 90°51'W. Add Fort Smith transition area btn 34°30'N & 36°00'N — 93°30'W & 96°00'W.

•LOS ANGELES

59th Edition, March 4, 1965

No hazardous changes.

•MIAMI

50th Edition, September 17, 1964

Add obstn 276' MSL 27°05'34''N, 80°27'01''W. Add obstn 457' MSL 28°03'02''N, 81°47'58''W, Add Melbourne RBn freq 257, ident MLB, class HW, 28°05'57''N, 80°-42°04'W. Delete St. Petersburg Clearwater Intnl ctl twr freq 317. Change Sarasota–Bradenton VOR name to Sarasota. Delete Sarasota Bradenton ctl twr freq 272.

Delete Tampa Intnl ctl twr freq 278. Add obstn 428′ MSL 28°04′26″N, 81°40′52″W. Add obstn 510′ MSL 27°32′30″ N, 81°29′35″W. Add obstn 353′ MSL 26°20′46″N 80°12′32″W.

MILES CITY

42nd Edition, October 15, 1964

Delete Solseth arpt 46°02′N, 102°52′W. Delete Nelson arpt 47°57′N, 102°49′W.

•MILWAUKEE

57th Edition, December 10, 1964

In eastern border change Salem VOR freq 117.8 ch 125 to 114.3 ch 90. Change Chicago Ohare VOR freq 111.6 Ch 53 to 113.9 ch 89. Add obstn 1119′ MSL 42°05′30″N, 85°19′16″W. Add BENTON HARBOR MICH ctl zone 5 mi radius of ROSS FIELD arpt 42°07′45″N, 86°25′45″ W with 8 mi extsns E & W. Add MADISON WISC ctl zone extsn from 5 mi radius zone of TRAUX FIELD arpt to 7 mi N of VOR. Add Coldwater RBn freq 224 ident CWM class MHW 41°56′12″N, 85°02′56″W. Change Muskegon VORTAC freq 115.6 Ch 103 to 115.2 Ch 99.

•MINOT

41st Edition, March 4, 1965

No hazardous changes.

•MOBILE

56th Edition, February 4, 1965

Add obstn 600′ MSL 31°08′11″N–88°25′15″W. Add obstn 458′ MSL 30°37′27″N–89°08′41″W. Add obstn 780′ MSL 32°01′27″N–88°17′16″W.

MT. SHASTA

52nd Edition, November 12, 1964

Delete LORENZ LUMBER arpt 41°00′N–121°37′W. Delete GOOSE VALLEY RANCH arpt 40°56′N–121°41′W.

MT. WHITNEY

54th Edition January 7, 1965

Add VISALIA VOR freq 109.4 ident VIS class TVOR MV 16°E 36°22′04″N–119°28′52″W.

NASHVILLE

54th Edition, January 7, 1965

No hazardous changes.

•NEW ORLEANS

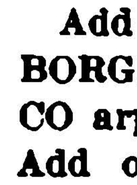
56th Edition, September 17, 1964

Delete Bayou Boeuf SPB 29°41′N, 91°06′W. Delete Hodson arpt 29°40′N, 90°35′W. Delete Saltzman arpt 29°57′N, 92°27′W. Add obstn 329′ MSL 30°35′47″N, 91°31′47″W. Add 2 obstns 467′ MSL 29°59′20″N, 90°27′45″W & 30°00′35″N, 90°27′22″W. Change obstn 315′ MSL to 402′ MSL 29°38′46″N, 90°05′54″W. Delete Lake Charles ctl twr freq 109.1. Change obstn 1044′ MSL to 1244′ MSL 30°02′38″N, 92°22′17″W. Add obstn 435′ MSL 30°07′57″N, 94°18′55″W. Add obstn 325′ MSL 30°29′40″N, 89°49′47″W. Add obstn 265′ MSL 30°10′00″N, 93°36′08″W. Add obstn 260′ MSL 30°06′35″ N, 92°47′37″W. NAAS NEW IBERIA ctl twr decmsnd. Delete Morgan No 2 arpt 30°07′N, 93°04′W. Add obst 351′ MSL 30°26′18″N, 93°47′16″W. Add obstn 460′ MS 30°31′13″N, 92°03′15″W.

•NEW YORK

61st Edition, October 15, 1964

Change Clermont VOR freq 114.3 to 117.6. Chan Riverhead VORTAC freq 113.2 Ch 79 to 117.2 Ch 11 In norther border change Chester VOR freq 108.6 117.3 Delete Rentschler ctl twr freq 271. Delete Suns arpt 39°59′N, 77°38′W. Correct Deer Park VORTAC co



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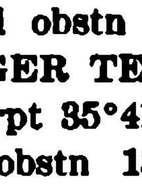


Add obstn 367′ MSL 41°06′33″ 72°22′06″W. Change Delancey VOR freq 109.6 to 112 Delete bcn from Scranton arpt 41°29′N, 75°46′W. Chan Binghamton VORTAC freq 114.1 Ch 88 to 114.3 Ch 9 Add obstn 1462′ MSL 40°49′20″N, 74°33′24″W. Chan Slate Run VOR freq 113.2 to 113.9 Change West Ches VORTAC freq 116.4 Ch 111 to 113.2 Ch 79. In weste border change Tyrone VORTAC freq 113.9 Ch 86 to 114 Ch 96.

Delete Dietz arpt 40°54′N, 76°38′W. Delete airway b site #18B code — ●●● 41°26′N, 75°45′W. Delete D posit arpt 42°03′N, 75°25′W. Change Clermont VO freq & ident 114.3 CET to 117.6 IGN. Extend Suffo AFB Military Climb Corridor R–5205 aprxly 3 mls S & 5 mls NE.

•NORFOLK

56th Edition, March 4, 1965

No hazardous changes.

•OKLAHOMA CITY

56th Edition, November 12, 1964

Add obstn 2749′ MSL 35°34′07″N–97°29′20″W. Ad BORGER TEX ctl zone 5 mi radius of HUTCHINSO CO arpt 35°41′55″N, 101°23′40″W. with extsns N & S Add obstn 1380′ MSL 34°20′57″N, 97°55′37″W. Ad obstn 1792′ MSL 34°49′33″N, 97°56′54″W. Add obs 1290′ MSL 34°50′49″N, 97°21′30″W. Add obstn 162 MSL 35°07′55″N, 98°15′45″W. Add obstn 1487′ MS 34°24′24″N, 98°55′31″W. Add obstn 2054′ MS 35°41′07″N, 98°52′45″W. Add obstn 1877′ MS 35°17′00″N 98°42′40″W.

•ORLANDO

52nd Edition, November 12, 1964

Delete Strickland arpt 28°52′N, 81°57′W. Add obst 457′ MSL 2803′02″N, 81°47′58″W. Delete NAS Sanfor ctl twr freq 296. Add obstn 506′ MSL 28°22′53″N, 80 36′30″W. Add obstn 344′ MSL 28°20′58″N, 80°47′23″W Add obstn 522′ MSL 28°30′01″N, 80°34′52″W. Add obst 428′ MSL 28°04′26″N, 81°40′52″W. Add obstn 420′ MS 28°33′33″N, 81°32′40″W. Delete St. Petersburg-Clea WATER INTNL ctl twr freq 317. Delete TAMPA INTN ctl twr freq 278. Delete SLADE arpt 28°42′N, 81°22′W Add obstn 849′ MSL 29°42′34″N, 82°23′34″W. Ad obstn 533′ MSL 28°35′09″N, 80°39′06″W. Add obst 321′ MSL 28°20′01″N, 81°24′22″W.

PHOENIX

52nd Edition, January 7, 1965

Delete REX WILLIAMS arpt 33°30'N, 112°15'W. Ex-d R-2308 aprxly 5 SMIS E.

•POCATELLO

48th Edition, October 15, 1964

Delete CROWHEART BUTTE arpt 43°16'N, 109°06'W. lete POCATELLO ctl twr freq 278. Add V465 airway rt from DUNOIR to BILLINGS (014° M DUNOIR). ange Fanning ctl twr freq 319.9 to 257.8.

•PORTLAND

52nd Edition, February 4, 1965

elete Agua Marina SPB 45°29'N −122°40'W.

PRESCOTT

42nd Edition, September 17, 1964

elete Gray Mountain arpt 35°44'N, 111°29'W Delete ke VOR 34°54'N, 112° 25'W Add V 291 airway from slow to Peach Springs.

RAPID CITY

41st Edition, December 10, 1964

o hazardous changes.

RENO

43rd Edition, January 7, 1965

o hazardous changes.

•ROSWELL

52nd Edition, January 7, 1965

l obstn 4231' MSL 31°54'54''N, 106°23'34''W. Add ker RBn freq 396 ident LK class MHW 32°21'55''N, 26'32''W. Add obstn 3437' MSL 32°19'32''N −103°-31''W. Delete Levell and arpt bcn 33°33'N, 102°22''W. lete note "RBn to be comin" for Roswell RBn 18'N, 104°27'W.

SACRAMENTO

53rd Edition, January 7, 1965

elete BEST arpt 38°46'N, 121°46'W. Delete note "To comm" for SANTA ROSA VOR 38°31'N, 122°49'W. lete VARNEY arpt 39°38'N, 122°13'W.

SALINA

51st Edition, September 17, 1964

Add obstn 2485' MSL 38°03'26''N, 99°22'13''W. ange obstn 2875' MSL to 2880' MSL 38°25'54''N, 46'18''W. Add Manhattan (Pvt) RBn freq 391, ident IK, class HW 39°06'55''N, 96°37'30''W.

SALT LAKE CITY

50th Edition, December 10, 1964

Delete HOWELL arpt 41°46'N, 112°27'W.

•SAN ANTONIO

55th Edition, January 7, 1965

Delete Yoakum arpt 29°19'N −97°14'W. Add obstn ' MSL 30°01'55''N, 94°59'37''W. Delete Matagorda ib arpt 28°27'N, 96°18'W.

•SAN DIEGO

57th Edition, March 4, 1965

No hazardous changes.

•SAN FRANCISCO

56th Edition, January 7, 1965

Delete airway beacon site #21 code ● — — 36°04'N, 120°59'W. Delete Evergreen RBn 37°18'N −121°49'W.

•SAVANNAH

57th Edition, March 4, 1965

No hazardous changes.

SEATTLE

56th Edition, December 10, 1964

Add obstn 526' MSL 47°05'53''N, 122°35'41''W. Add obstn 421' MSL 47°12'19''N, 122°16'11''W. Delete EVERGREEN arpt 47°18'N, 122°19'W. Delete airway beacon site #61B, code ● — — 46°11'N 122°54'W.

•SHREVEPORT

48th Edition, January 7, 1965

Delete MARSHALL VOR 32°27'N, 94°15'W. Delete HARRISON CO arpt beacon 32°31'18''N, 94°18'30''W. Add obstn 932' MSL 33°08'03''N, 96°07'35''W. Add PARIS TEX ctl zone 5 mi radius of COX FIELD arpt 33°38'17''N, 95°26'54''W with S extsn. Delete Perthshire arpt 33°58'N, 90°55'W. Delete Greenville arpt 33°23'N, 91°00'W. Add obstn 332' MSL 32°27'58''N, 91°35'48''W. Add obstn 449' MSL 31°55'16''N, 92°38'24''W. Add obstn 710' MSL 33°38'08''N, 95°33'13''W.

•SIOUX CITY

40th Edition, November 12, 1964

Delete Madison arpt 44°01'N, 97°03'W. Add obstn 1902' MSL 42°05'24''N, 97°01'00''W. Add obstn 2288' MSL 42°02'39''N, 98°02'01''W. Delete SIOUX CITY RBn 42°22'N, 96°21'W. Add obstn 1763' MSL 43°22'41" N, 97°08'46''W. Add Norfolk Neb ctl zone 5 mi radius of Karl Stefan arpt 41°59'10''N, 97°26'00''W with extsns NE SE SW & NW. Add Norfolk Neb transition area within a 15 mi radius of Norfolk VOR. Add V219 airway direct Sioux City to Mankato (Sioux City 034°M).

SPOKANE

50th Edition, December 10, 1964

No hazardous changes.

•TRINIDAD

41st Edition, March 4, 1965

No hazardous changes.

•TULSA

54th Edition, October 15, 1964

Delete Sky Haven arpt 36°46'N, 91°53'W. Delete Waynesville Mem arpt 37°49'N, 92°11'W. Add obstn 663' MSL 36°03'40''N, 90°57'15''W. Add obstn 1350' MSL 37°50'59''N, 94°22'22''W. Delete Golf Ranch arpt 36°38''N 93°11'W. Add obstn 790' MSL 36°19'49''N, 90°-17'04''W. Add obstn 25°49' MSL 35°58'08''N, 95°36'55''

W. Add obstn 1465' MSL 38°02'26''N, 91°30'53''W. Add INDEPENDENCE (Pvt) RBn freq 400 ident IDP class MHW 37°09'36''N, 95°46'30''W. Add PARSONS TEX transition area 6 smi radius of TRI-CITY arpt 37°30'00'' N, 95°30'30''W with 13 mi wide extsn to 12 mis N of arpt. Add Tulsa Okla. ctl zone 3 mi radius of Riverside arpt 36°02'N, 95°59'W.

•TWIN CITIES

49th Edition, November 12, 1964

Add obstn 1531' MSL 45°01'32''N, 93°02'38''W. Add obstn 1363' MSL 45°02'46''N, 93°11'47''W. Add obstn 1525' MSL 44°18'15''N, 91°54'14''W. Add obstn 1386' MSL 43°57'50''N, 90°51'28''W. Add V219 airway direct Sioux City to Mankato (Mankato 217°M).

•WASHINGTON

60th Edition, October 15, 1964

Change Kenton VORTAC freq 114.8 Ch 95 to 116.8 Ch 115. Change Sea Isle VORTAC freq 115.2 Ch 99 to 114.8 Ch 95. Delete Point Lookout RBn & FM 38°-02'24''N, 76°19'16''W. Delete Sunset arpt 39°59'N, 77°38' W. In southern border change Flat Rock VORTAC freq transition area 6 smi radius of TRI-CITY arpt 37°20'00'' 112.1 ch 58 to 113.3 ch 80. Correct Woodstown ident ODD to OOD. Change Millville VOR freq 115.8 to 115.2. ALF WEBSTER (NAVY) ctl twr decmsnd. Correct NEW CASTLE VORTAC code —•— to •—— Add obstn 345' MSL 39°22'42''N, 74°26'53''W. Delete DELA-WARE VALLEY arpt 39°51'N, 75°00'W. In southern border change HOPEWELL VORTAC freq 117.3 Ch 120 to 112.0 Ch 57. Change West Chester VORTAC freq 116.4 Ch 111 to 1132 Ch 79. Change Martinsburg VORTAC freq 113.8 Ch 85 to 112.1 Ch 58. Twr comsnd Martin (Pvt.) arpt freqs 121.3 & 297.2. Add obstn 428' 38°22'42'' N, 76°42'56''W. Add obstn 780' MSL 39°13'31''N, 76°-48'35''W. Add obstn 363' MSL 39°04'59''N, 76°50'22''W.

•WICHITA

53rd Edition, January 7, 1965

Delete #4 arpt symbol 37°03'N, 101°05'W. Add LIBERAL KAN ctl zone 5 mi radius of LIBERAL MUN arpt 37°02'30''N, 100°57'30''W with extsns NW N & SW. Add LIBERAL KAN transition area 15 s radius of LIBERAL MUN arpt 37°02'30''N, 100°57'3 W. Add obstn 2801' MSL 36°31'50''N, 100°17'20''W. A Tulsa Okla ctl zone 3 mi radius of Riverside arpt 36°0 N, 95° 59'W.

WILLISTON

38th Edition, July 23, 1964

Delete Petes Port arpt 48°01'N, 101°59'W. Add ob 2125' MSL 49°43'15''N, 104°01'00''W. Add obstn 26 MSL 49°42'10''N, 106°03'05''W. Add obstn 2735' M 49°38'40''N, 105°59'30''W. Add obstn 2980' MSL 4 26'45''N, 107°00'45''W. Add obstn 3150' MSL 5 00'30''N, 107°45'00''W. Add Moose Jaw term ctl a within a 50 SM radius of Moose Jaw arpt 50°20 105°33'W.

•WINSTON-SALEM

54th Edition, October 15, 1964

Change Bluefield VOR freq 113.3 to 115.4. Add I Springs (Pvt) RBn freq 224, ident HSP, class B 37°57'00''N, 79°49'30''W. In northern border cha Charleston W.Va. VORTAC freq 115.4 Ch 101 to 117.4 121. Change Flat Rock VORTAC freq 112.1 ch 58 to 11 ch 80. Delete Clarksville–Finchley arpt 36°40'N, 78°29' In western border change Lexington VORTAC freq 11 ch 106 to 117.0 ch 117. Delete London RBn 37°05'25' 84°04'30''W. Add obstn 707' MSL 38°02'54''N, 78°28'1 W. Change Beckley VOR freq 109.8 to 117.7. Add ob 2032' MSL 36°21'32''N—82°13'53''W. Add obstn 6 MSL 35°58'32''N, 78°22'29''W. Change obstn 2575' M to 2838' MSL 36°51'22''N, 81°30'21''W. Delete Dal arpt 37°08'N, 77°54'W.

•YELLOWSTONE PARK

41st Edition, March 4, 1965

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

'BILE, BROOKLEY AFB RDO: VOR unusable below 2000' MSL beyond 30 nmi due reduced coverage.

ARIZONA

'KEYE RDO: VOR unusable below 7000' MSL beond 40 nmi 320–345° acct reduced coverage.
'HISE RDO: VORTAC unusable beyond 40 nmi below 12,500' MSL 175–240°, 090–145° below 10,500' ISL 040–090°. Below 14,000' MSL 360–040°.
A'H SPRINGS RDO: VORTAC unusable below 1000' MSL beyond 40 nmi from 195–230° account educed coverage.
OENIX RDO: VORTAC unusable beyond 10 nmi below 10,000' MSL 152–165° and 200–210° and beyond 6 mi below 7000' MSL 078–125° acct crs roughness.
ESCOTT RDO: VORTAC unusable beyond 40 nmi elow 11,000' MSL 145–155° and 175–200°; below 1,000' MSL 200–225°; below 12,000' MSL 225–235° ccount crs roughness. VOR excessive crs vagaries thin 30 nmi from FL 240 thru 410 rely on To-From dicator for stn passage. Disregard VOR momentary cursion of crs 055° thru 070° 14 to 18 nmi all alts ue terrain reflections.
' SIMON RDO: VORTAC unusable beyond 40 nmi elow 15,000' MSL 145–190°; below 14,000' 190–255°; elow 10,500' MSL 350–145° account reduced coverage.
'SON RDO: TACAN unusable beyond 6 nmi below 1,500 MSL 240–295° account crs roughness. VORTAC nusable beyond 40 nmi below 15'000 MSL from 320–5°; below 16,500' MSL 045–065°; below 15,000' SL 065–080°.
MA RDO: VORTAC unusable beyond 40 nmi below 00' MSL 280–300°.

ARKANSAS

T SPRINGS RDO: VOR rads unusable below 3500', yond 20 mi due roughness and scalloping.

CALIFORNIA

ZNAL RDO: TACAN unusable beyond 40 nmi below 00' MSL 320–065° below 4000' MSL, 065°–095° below 4500' MSL, 095–125° below 8500' MSL, 125–170° elow 7500' MSL, 170–198° below 7000' MSL, 195–0° below 8000' MSL, 230–305° below 8000' MSL.
ITHE RDO: VORTAC unusable beyond 40 nmi below 00' MSL 324–018° below 9000' MSL 189–217°, below 10,000' MSL 175–189°, below 15,000' MSL 277–4°.
ERGREEN RDO: H fac unusable btn 360–120° clockise.

FILLMORE RDO: VORTAC unusable beyond 40 nmi 13,000' and below 280–290° and 14,000' and below 290–350°
FORT JONES RDO: LFR E crs unreliable account multiples.
FRESNO RDO: TACAN portion of VORTAC unusable below 4000' MSL 200–250°.
GOFFS RDO: VOR unusable beyond 40 nmi below 11,000' MSL 265–290° and 15,000' MSL 290–310° acct reduced coverage.
GORMAN RDO: VORTAC unusable beyond 40 nmi below 15,000 MSL 265–310° below 10,500' MSL 350–040°; below 5500' MSL 125–155°; below 10,500' MSL 155–170° below 14,000 MSL 170–219°; below 31,000' MSL 219–250°; below 25,000' MSL 250–265° acct reduced coverage.
LONG BEACH RDO: TACAN portion VORTAC unusable for apchs to Los Alamitos NAS acct crs roughess.
LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V303 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/ Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/ Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce Canyon VORTAC to Los Angeles/ Salt Lake City boundary. J92 FL 180– 230 incl. from 35 miles W Boulder VOR to Los Angeles/ Salt Lake City boundary.
LOS ANGELES RDO: VORTAC unusable beyond 40 nmi below 6000' MSL from 135–180°, below 7000' MSL from 268–290°. V–201 011° rad beyond 20 nmi below 9000' MSL. DME portion unusable beyond 40 nmi below 3500' MSL from 180–210° acct reduced coverage.
NAPA RDO: TACAN unusable beyond 40 nmi below 7500' from 280–045°.
NEEDLES RDO: VORTAC unusable below 11,500' MSL beyond 40 nmi from 170 to 220° account reduced coverage.
OAKLAND RDO: H facil unusable beyond 25 nmi 094–124°. TACAN unusable beyond 20 nmi below 3700' MSL 045–330°; below 4500' MSL 330–045°; beyond

40 nmi below 5000′ MSL 060–320°, below 6000′ 320–340°, below 7000′ MSL 340–355°, below 8000′ MSL 355–005°, below 0000′ MSL 005-060°.

ONTARIO RDO: VOR unusable below 14,000′ MSL beyond 40 nmi from 200 to 140° account reduced coverage.

PALMDALE RDO: VOR unusable beyond 40 nmi below 14,000′ MSL 110–180°.

PALM SPRINGS RDO: VOR unusable beyond 40 nmi below 17,000′ MSL 177–200° and 277–054°, below 16,000′ MSL 054–092° below 15,000′ MSL 158–177°, below 11,500′ MSL 140–158°, below 11,000′ MSL 259-277°, below 8000′ MSL 092–140°, beyond 20 nmi below 13,000, MSL 200–259° acct reduced coverage.

PARKER RDO: VORTAC unusable beyond 40 nmi below 24,000′ MSL 100–135°; below 14,500′ MSL 135–150° acct reduced coverage.

POINT REYES RDO: VOR unusable beyond 40 nmi below 5000′ and 50 nmi below 6000′ btn 140–220°.

POMONA RDO: VOR unusable beyond 37 nmi on the 073° rad and beyond 40 nmi below 14,500′ MSL 270–330° below 18,000′ MSL 330–360° below 22,000′ MSL 360–035° below 14,500′ MSL 035–045° below 8000′ MSL 070 140° below 7000′ MSL 140–270° acct reduced coverage.

PORTERVILLE RDO: VOR unusable beyond 40 nmi below 4000′ MSL from 065 to 180° account reduced coverage.

RED BLUFF RDO: VOR unusable below 3500′ MSL 280–300° acct crs scalloping.

RIVERSIDE RDO: VOR unusable beyond 15 nmi below 14,500′ MSL 060–100°; beyond 30 nmi below 9000′ MSL 100–235°, below 6500′ MSL 235–290°, below 13,500′ MSL 290–330°, below 10,500′ MSL 330–035° below 13,500′ MSL 035–060°. VOR will be shutdown for mod.

RIVERSIDE, MARCH AFB RDO: USAF VOR unusable beyond 40 nmi below 14,000′ from 015–035° and below 16,000′ from 060–080°. Vail Lake VOR ident VLK limited to 30 nmi radius above 8500′ from 200–320° above 12,000′ from 070 to 320° above 13,000′ from 200–070°

SALINAS RDO: VORTAC unusable beyond 20 nmi 010 thru 080° at MOCA and beyond 30 nmi 150 thru 210° at MOCA.

SAN DIEGO RDO: VOR unusable from 306–330° clockwise below 3800′ MSL beyond 15 nmi acct crs roughness. TACAN unusable from 300-335° clockwise below 3800′ MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500′ MSL 300-320° acct roughness.

SAN FRANCISCO RDO: H facility unusable beyond 15 mi from 130°–160° clockwise.

SAN FRANCISCO GAP RDO: FM unusable below 2000′ MSL.

SAN JOSE RDO: VOR unusable beyond 20 nmi below 8000′ MSL 360 040°; below 9000′ MSL 040–070°; below 8000′ MSL 070–110°; below 4000′ MSL 110–130°; below 6000′ MSL 130–280°; below 5000′ MSL 280–360°.

SANTA ANA, EL TORO MCAS RDO: VOR (freq 111.0 mc) coverage restricted at and below 10,000′ beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA RDO: VOR unusable beyond 40 nmi below 11,000′ MSL 050-265°. Not certified within Warning Area 289.

SAUSALITO RDO: VORTAC unusable 300-313° beyo 10 mi below 12,000′.

THERMAL RDO: VORTAC azimuths unusable beyo 40 nmi 015-040°, 13,000′ MSL; 060-040°, 12,000′ M 060–085°, 8000′ MSL; 150-200°, 15,000′ MSL; 20 250°, 23,000′ MSL; 350–015, 12,000′ MSL.

TWENTY NINE PALMS RDO: VORTAC azimuth u usable 010-035°; 13,000′; 100-120°. 11,500′; 120-24 10,500′ beyond 40 nmi.

VAIL LAKE RDO: VOR unusable beyond 30 nmi bel 8500′ from 200–320° below 12,000′ from 320–070° l low 13,000′ from 200–070°.

WOODSIDE RDO: VORTAC unusable below 5000′ M beyond 30 nmi 190°–260° and beyond 20 nmi 260-30 unusable beyond 10 nmi below 4000′ 360–050°.

COLORADO

ALAMOSA RDO: VORTAC unusable beyond 40 nmi l low 18,000′ MSL from 025–045° and below 13,5 MSL 150–165° acct reduced coverage.

COLORADO SPRINGS RDO: VOR unusable bel 11,000′ MSL, 320–020°; 10,000′ MSL, 020–072°; 90 MSL, 072–140°; 12,000′ MSL, 190–220°; 16,500′ M 220–280°; 12,500′ MSL, 280–320°, beyond 30 nmi a reception VORTAC (COS) unusable beyond 40 n below 15,200′ MSL, 300–340°; below 14,300′ MSL, 3 005°; below 13,200′ MSL, 005–020°; below 12,1 MSL, 020–030° acct reception.

HANOVER RDO: H facil bearings unreliable beyond nmi in shadow area of Pikes Peak

CONNECTICUT

BRIDGEPORT RDO: VOR unusable beyond 10 n from 265° clockwise to 280°; beyond 6 nmi 290–3 beyond 20 nmi 315–340° at MOCA. VOR unusable yond 18 nmi below 7000′ MSL 200–215°.

GROTON RDO: H facil unusable beyond 15 nmi.

NEW HAVEN RDO: VOR unusable beyond 20 nmi MOCA.

WINDSOR LOCKS RDO: TACAN unusable below 35 MSL beyond 35 nmi 090° to 290° due both azimu and distance unlocks.

DISTRICT OF COLUMBIA

WASHINGTON RDO: DCA VOR unusable beyond nmi 010–045°; beyond 10 nmi 045-055°; beyond nmi 055–070°; beyond 20 nmi 070–180°; beyond 32 n 180–210°; beyond 30 nmi 210–260°; beyond 20 n 260-300° beyond 35 nmi 300–340° account roughn and scalloping. Change over point established 16 n from Baltimore VOR on V–157.

FLORIDA

KEY WEST RDO: VOR unusable below 14,500 fr 095–340° beyond 15 nmi.

LAKELAND RDO: VOR unusable below 18,000′ M except the published apch and airway radials a reported crs displacements.

GEORGIA

AUGUSTA RDO: VOR unusable 357–002° acct rou ness. V185 tmprly authorized 180° rad Greenwo to Augusta VOR. MEA 2300′ MSL due restricti

COLUMBUS, LAWSON AAF RDO: VOR unusable b yond 17 nmi.

'LTON RDO: VOR unusable all radials except 220–'80° acct roughness.
'CON RDO: FSS freqs 122.2, 126.7, 255.4 unusable elow 2500' in SE quad beyond 35 mi.
'ME RDO: VOR rads 124–134° unusable account oughness.
AYCROSS RDO: VORTAC unusable below 3000' MSL eyond 30 nmi.

IDAHO

ISE RDO: VORTAC unusable beyond 40 nmi below 4,000' MSL 360-050° account reduced coverage.
RLEY RDO: VORTAC unusable beyond 40 nmi below 14,000' MSL from 130–140° and below 12,000' MSL from 140–150° acct reduced coverage.
WISTON RDO: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.
LLAN PASS RDO: H facil momentary AIF disturbance may be experienced within 15 nmi stn 230–30°. VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000' MSL from 310–0° and from 200–230° and below 12,000' MSL from 0–310°.
'ATELLO RDO: VOR unusable beyond 40 nmi below 11,000' MSL from 080–085° and below 13,000' MSL from 085–120° acct reduced coverage.
IN FALLS RDO: VOR unusable beyond 40 nmi below 12,000' MSL 115–150° acct reduced coverage.

ILLINOIS

AMPAIGN RDO: TACAN radials 231–230° unusable low 14,000'.
'CAGO O'HARE RDO: VOR unusable 060–072°, 0–190°, 290–305°, 340–360°. DME unusable 004–014°, 5–156°, 285–315°, 340–350°.
'CAGO HEIGHTS RDO: VOR portion unusable beond 20 nmi below 8000' MSL 330–350°.
'ATUR RDO: VOR unusable above 12,000' MSL eyond 40 nmi E due to freq interference with RID OR.
IET RDO: VOR unusable 040-070° below 3000' SL beyond 35 nmi.
)TONE RDO: VOR 341-010° rads unusable beyond ; mi below 3000' MSL

INDIANA

)X RDO: VOR coverage restricted to 37 nmi at EA. Possible interference btn Mansfield, Ohio and nox VOR above 10,000' MSL beyond 45 nmi E of nox VOR.

IOWA

)LA RDO: Voice comms with Omaha, Nebr FSS unsable below 4500' on V–172 and V–172N btn 20 and ; nmi E VORTAC, excp rcvr 122.1 and tsmts 117.1 c.
TERLOO RDO: TACAN portion of VORTAC unusble beyond 15 nmi at all alts 355–005° account unreliple crs and distance indications. Not to be used for chs to rnwy 18 acct roughness.

LOUISIANA

REVEPORT-DOWNTOWN RDO: VOR unusable 070 0° and 180–280°.

MAINE

MILLINOCKET RDO: VORTAC unusable beyond 35 nmi 330-340° at MOCA.

MARYLAND

FREDERICK RDO: VOR unusable below 2000' beyond 25 nmi from 055–190°.
PATUXENT RDO: VOR unusable below 1500' MSL; beyond 35 nmi from 245–300° acct reduced coverage.
SNOW HILL RDO: VOR unusable below 1500' beyond 12 nmi 315-005°/ below 1500' beyond 25 nmi 005-020° and below 1300' beyond 20 nmi 210–225° acct roughness. Changeover point on V–139 btn Snow Hill and Cape Charles 20 mi SW Snow Hill.

MASSACHUSETTS

BEDFORD RDO: VOR unusable below 3000' MSL beyond 10 nmi 270–225° and below 13,000' MSL beyond 10 nmi 225-270°.
BOSTON RDO: VOR unusable beyond 26 nmi all azimuths at MOCA.
SHUTESBURY RDO: VOR ident SHT freq 109.2 for use only with published procedures. Not for use as enroute navaid.
WESTFIELD RDO: VOR unusable beyond 35 nmi from 270° clockwise to 320° at MOCA.

MICHIGAN

BATTLE CREEK RDO: TACAN rads 275 thru 290° unusable 13,500' MSL and below beyond 15 nmi due crs roughness.
CARLETON RDO: TACAN portion of VORTAC unusable beyond 12 nmi below 4500' MSL 335-345° acct roughness.
FLINT RDO: VORTAC unusable 300-320° beyond 6 nmi below 10,000' account roughness and unlocks. TACAN azimuth unusable 320-330° beyond 6 nmi, below 10,000' account roughness and unlocks.
GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00'48", long 84–41'30", Gaylor Arpt. Revg freqs 122.1, 126.7 mc. Monitoring category (1).
MARQUETTE RDO: VOR unusable 200–335° below 2000' beyond 25 mi; 335-350° below 2000' beyond 30 mi; 200–350° below 4400' beyond 40 nmi.
MT. PLEASANT RDO: Non-Federal VOR operg 24 hrs daily VFR use only. Class: L–BVOR Freq: 109.8 mc. Ident: MOP. Lctd lat 43°37', long 84°44'. Monitoring category (1) Revg 122.1 and 126.7 mc.
WHITE CLOUD RDO: VOR unusable below 2000' from 360-090° clockwise beyond 35 mi.

MINNESOTA

INTERNATIONAL FALLS RDO: H facility shutdown UFN.
WINONA RDO: VOR unusable as enroute IFR aid.

MISSOURI

KANSAS CITY RDO: Riverside VOR unusable beyond 15 mi below 2400' MSL; beyond 30 mi below 4000'; 125–170°, 252–260° and 300–310° unusable all distances and alts.
MARYLAND HEIGHTS RDO: VOR coverage restricted to 35 nmi from 150° clockwise to 219° at MEA.

MONTANA

BOZEMAN RDO: VOR unusable beyond 15 nmi below 11,000′ MSL from 010–090° due reduced coverage.

BUTTE RDO: VOR unusable beyond 15 nmi below 10,000′ MSL from 005–120°, beyond 15 nmi below 11,000′ MSL from 120–325°.

DILLON RDO: VORTAC unusable beyond 40 nmi below 11,000′ MSL from 340–350° below 9000′ MSL 010–020°; below 12,000′ MSL 020-040°; below 14,000′ MSL 040-030°; below 12,000′ MSL 080–090°; below 14,000′ MSL 090 130° below 18,000′ MSL 130–145° account reduced coverage.

DRUMMOND RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 055–070°, below 14,000′ MSL from 110–125°, below 17,000′ MSL from 125–150°, below 13,000′ MSL from 150–210°, below 14,000′ MSL from 210-270°, below 12,000′ MSL from 270–055° acct reduced coverage. Possible momentary flag activity on V–2 nine miles E of Drummond VOR. Verify station passage by to/from indication.

GLASGOW AFB RDO: USAF VOR unusable for civil use below 6800′ MSL beyond 10 nmi 235–245° account crs roughness.

HELENA RDO: VOR unusable beyond 40 nmi below 10,000′ MSL 360–065°; 11,000′ 065–090°; 16,000′ 110–120°; 18,000′ 120-180°; 17,000′ 180–205°; 14,000′ 205–220°; 12,000 220–240; 11,000′ 240-305°; 10,000′ 305–320° account reduced coverage.

MISSOULA RDO: VORTAC unusable beyond 15 nmi 345–060°; beyond 22 mi 060-095°; below 10,000′ beyond 20 mi 095–165°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 165–270°; below 12,000′ beyond 20 mi 285–315°; not usable 315–345° beyond 34 mi, TACAN below 14,000′ VOR below 11,000′, acct reduced coverage. Possible momentary VOR flag activity on V–2 nine miles E of MSO VORTAC. Verify station passage by to/from indication.

WHITEHALL RDO: VORTAC unusable below 14,700′ MSL beyond 30 nmi from 360–040°; below 12,000′ MSL beyond 30 nmi from 041–055°; below 14,500′ MSL beyond 30 nmi 120–160°; below 14,500′ MSL beyond 20 nmi from 215–230°; below 14,500′ MSL beyond 35 nmi from 231–285°, below 13,500′ MSL beyond 30 nmi from 286–359° acct crs roughness. TACAN unusable for apchs due roughness.

NEBRASKA

GRAND ISLAND RDO: TACAN unusable beyond 20 nmi below 7000′ 360-025°; from 0 to 10 nmi below 12,000′ 055–085°; from 0 to 20 nmi below 12,000′ 255-285°.

OMAHA RDO: Voice comms with Omaha, Nebr. FSS unusable below 3600′ on V–6–8S btn 36 and 55 nmi E of VORTAC, excep tsmtg 116.3 mc.

NEVADA

BATTLE MOUNTAIN RDO: VOR unusable at MOCA beyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–285° acct reduced coverage.

BEATTY RDO: VOR restricted below 8000′ beyond 27 nmi, 060–360°; below 10,000′ beyond 10 nmi, 360-060°.

BOULDER RDO: VOR restrictions 300 to 310° below 8000′ MSL beyond 15 nmi due to scalloping.

COALDALE RDO: VOR portion of VORTAC unusable beyond 25 nmi below 11,000′ MSL 060–075°; beyond 15 nmi below 10,000′ MSL 155–180°; beyond 25 nmi below 11,200′ MSL 300–015° acct reduced coverage. DME usable beyond 15 nmi below 14,000′ MSL 065–07 below 17,000′ MSL 150–235°; below 16,000′ MSL 3 330° account reduced coverage.

CURRANT RDO: VOR unusable beyond 15 nmi at MO 005–025°; 25 nmi 060–155°; 35 nmi 245–260°; 30 260–290°; nmi 290–310° acct reduced coverage.

ELY RDO: VOR operg with following restrictions cept on established airways and routes: unusable yond 20 nmi below 11,500′ MSL from 120–170° 240–320°; below 14,000′ MSL 170–220° and 320–34 below 15,000′ MSL from 220–240°; below 12,000′ M from 340–010°; beyond 10 nmi below 13,000′ M from 010–120°.

HAZEN RDO: VOR unusable 300–320° beyond 30 below 9500′.

LAS VEGAS RDO: VORTAC unusable beyond 40 below 9500′ MSL from 190° to 220° below 12.5 MSL from 200° to 255°, below 14,500′ MSL from 2 to 270°, below 16,000′ MSL from 270–290° acct of duced coverage.

MINA RDO: VOR unusable below 11,000′ due rou ness.

MORMON MESA RDO: VORTAC unusable beyond nmi below alts 12,000′ MSL from 055 to 100°; 14. MSL from 100 to 110°; 17,000′ MSL from 110 to 15 16,000′ MSL from 285 to 340° account reduced co age.

RENO RDO: H facility unusable 170°–270° beyond nmi, 270°–300° beyond 30 nmi and 300–010° bey 23 nmi. VOR unusable 200–230° beyond 30 nmi low 13,000′. TACAN unusable below 14,500′ bey 30 nmi btn 210–230°.

SPARKS RDO: H facility unusable btn 175–185° yond 18 nmi.

TONOPAH RDO: VOR unusable below 13,000′ MSL yond 40 nmi 005–030° acct reduced coverage.

WELLS RDO: VOR unusable beyond 40 nmi 18. MSL 005-030°; below 22,500, 185–210°; below 15. 335-350°; and below 12,000′, 350–005° account redu coverage.

NEW HAMPSHIRE

KEENE RDO: VOR unusable 070–085° beyond 20 at MOCA.

LEBANON RDO: VOR unusable below 6900′ MSL yond 35 nmi, 110–115° acct reduced coverage.

NEW JERSEY

ATLANTIC CITY RDO: VOR unusable beyond 35 from stn to MOCA. TACAN has momentary c pointer excursions within 10 nmi at MOCA, wh may be encountered at higher alts and greater ran TACAN apch rnwys 13 and 31 for mil jet acft proved; otherwise unsuitable for instrument a procedure.

ROBBINSVILLE RDO: VOR unusable beyond 30 from 020° clockwise to 065° at MOCA due interfere undisclosed source.

NEW MEXICO

CIMARRON RDO: VOR coverage restricted to 40 nmi at MEA excp V–19, N of CIM 35 nmi.

COLUMBUS RDO: VOR 078° rad restricted to 20 MSL for 40 nmi.

GRANTS RDO: TACAN unusable beyond 20 nmi 210°, 315–360° and 011–035° at MOCA acct los

signal, the portion 001–010° unusable acct loss of signal. VOR portion unusable beyond 30 nmi 310–360°, 20 nmi 360–025°, 30 nmi 150–175°, 20 nmi 175–210°, 35 nmi 240–265° at MOCA.

OSWELL RDO: TACAN unusable beyond 20 nmi below 7000′ MSL 060–140°; below 8000′ MSL 141–215° acct crs roughness.

NTA FE RDO: VORTAC restricted to 30 nmi at MOCA from 015–030°. TACAN rads 215° and 245° unusable acct roughness.

NEW YORK

NGHAMTON RDO: Erratic ADF action 4–13 nmi SSE of facil at min inst alt.

ER PARK RDO: VOR unusable below 1500′ MSL beyond 35 nmi from 070–180° below 1500′ MSL beyond 30 nmi from 180–240° below 2000′ MSL beyond 20 nmi from 240–350° below 2000′ MSL beyond 30 nmi from 350–040° due reduced coverage. TACAN unusable below 1500′ beyond 15 nmi from 088–098° due roughness.

NKIRK RDO: VOR unusable below 4000′ MSL beyond 22 nmi from 120–180° acct reduced coverage.

NESEO RDO: VORTAC unusable below 3500′ MSL beyond 35 nmi 115–140°; below 3500′ beyond 30 nmi 140–160°; below 3500′ beyond 35 nmi 160–180°; 3500′ beyond 30 nmi 190–210°; 3500′ beyond 35 nmi 210–215° due reduced coverage.

ENS FALLS RDO: DME unusable beyond 35 nmi 305–315°, beyond 30 nmi 315–320°, beyond 25 nmi 320–325°, beyond 30 nmi 325–350° at MOCA.

MPTON RDO: DME unusable below 1500′ MSL beyond 35 nmi 280–325°; below 2000′ MSL beyond 30 nmi 325–355° account reduced coverage.

GUENOT RDO: VOR unusable below 6500′ beyond 20 nmi 210–230° due reduced coverage.

HACA RDO: VOR unusable beyond 25 nmi 360– 150°.

NGSTON RDO: VOR unusable beyond 35 nmi 045–050° and 30 nmi 070–140° at MOCA.

W YORK, KENNEDY RDO: VOR unusable below 1500′ beyond 30 nmi 015–303°; below 1500′ beyond 26 nmi 030–045°; below 2000′ beyond 24 nmi 045–060°; below 1500′ beyond 24 nmi 060–075°; below 1500′ beyond 30 nmi 075–100°; below 1500′ beyond 28 nmi 100–150°; below 1500′ beyond 26 nmi 150–165°; below 1500′ beyond 30 nmi 165–215°; below 1500′ beyond 26 nmi 215–270°; below 2000′ beyond 26 nmi 270–340°; below 2000′ beyond 30 nmi 340–350°; below 1500′ beyond 35 nmi 350–015°. MRA Northport Int 2500′ MSL acct crs roughness.

W YORK RDO: La Guardia VOR (freq 113.1 mc) unusable clockwise beyond 20 mi 015–025°; 35 nmi 025–045°; 30 nmi 065–075°; 25 nmi 075–135°; 35 nmi 135–145°; 15 nmi 165–205°; 35 nmi 205–215°; 30 nmi 215–220°; 25 nmi 220–230°; 30 nmi 230–240°; 20 nmi 240–250°; 10 nmi 250–260°; 20 nmi 260–270°; 25 nmi 270–285°; 30 nmi 285–295°; 35 nmi 295–305°; 35 nmi 315–325°; 25 nmi 325–005° at MOCA.

ATTSBURGH RDO: VORTAC unusable below 6000′ MSL beyond 35 nmi 260–270°.

CHESTER RDO: VOR unusable beyond 12 nmi btn 045 to 065° at MOCA.

NORTH CAROLINA

HARLOTTE RDO: VOR unusable 360–055° acct roughness.

ELIZABETH CITY RDO: VOR unusable 026–042° and 085–100°, unusable 276–312° below 5000′. V–472 tmpry authorized 130° rad FKN ECG VOR MEA 2500′ MSL due restrictions.

GOLDSBORO, SEYMOUR JOHNSON AFB RDO: VOR rads 290° thru 320° and 100 thru 190° unusable due roughness, scalloping and bends.

NORTH DAKOTA

DICKINSON RDO: VOR unusable btn FL 170 and 310 beyond 40 nmi 090–120° acct crs roughness. GTF Center radar service avbl.

OHIO

AKRON RDO: VOR portion VORTAC unusable 030–080° acct crs roughness. From V–72 utilize published YNG VOR rad from Akron to YNG. SW–bnd determine stn passage at Akron by To-From indicator. MEA 2500′ MSL.

BRIGGS RDO: VOR unusable 330–010° and 120–145°, unusable above 10,000′ MSL 305–325° acct roughness. For V–8, V–75, V–92, utilize published Wheeling VOR 310° radial BSV to Wheeling VOR 3100′ MEA.

MANSFIELD RDO: VOR unusable above 8000′ MSL beyond 20 nmi from stn 140–220° and above 14,000′ MSL 220–140° due co-channel interference 108.8 mc from Rainelle, W.Va. VOR.

MONTGOMERY CO RDO: VOR unusable beyond 30 nmi 070° clockwise to 085°, 135–155°; 225–250°; 280–295° at MOCA. All other azimuths unusable.

STRONGVILLE RDO: VOR unusable beyond 35 nmi from 080–200° at MOCA.

OREGON

NEWPORT RDO: VORTAC coverage 40 nmi at MOCA excp unusable beyond 40 nmi below 8000′ MSL 350–150°; 6000′ MSL 150-170°; 6000′ MSL 320–350° acct reduced coverage.

NORTH BEND RDO: VOR unusable beyond 40 nmi below 6000′ MSL from 340–065° and below 6500′ MSL 065–190°.

PORTLAND RDO: VORTAC 332° rad and the DME on the same 332° rad not usable beyond 40 nmi at 6,000′.

REDMOND RDO: VORTAC unusable below 11,000′ MSL 190–210′; below 13,000′ MSL 210–240°.

ROSEBURG RDO: VOR coverage 40 nmi at MOCA excp 11,500′ MSL 070–085°; above 12,500′ MSL 100–125° beyond 35 nmi; 320° rad unusable beyond 35 nmi 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 6000′ MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN RDO: VOR unusable below 3500′ MSL beyond 26 nmi from 020 to 060° account crs roughness.

ALTOONA RDO: VOR unusable below 3500′ MSL beyond 18 nmi 070-100° below 3500′ MSL beyond 30 nmi 100-160° below 4500′ MSL beyond 30 nmi 200–310° all altitudes beyond 15 nmi 310–350° below 4000′ MSL beyond 30 nmi 350–010° due reduced coverage.

BRADFORD RDO: H fac unusable beyond 15 nmi 90 to 180° acct excessive needle oscillation.

CARROLLTOWN RDO: VOR unusable beyond 10 nmi 070–085° at MOCA.

HARRISBURG RDO: VOR unusable beyond 26 nmi from 105–140°; beyond 30 nmi 140–165° beyond 35 nmi 195–230° at MOCA. TACAN azimuth unusable beyond 35 nmi 195–230° 15 nmi 230–265° and 330–

345° at MOCA. TACAN distance unusable beyond 30 nmi 325–360° beyond 35 nmi 360° beyond 35 nmi 360–025° at MOCA.

HAZLETON RDO: Non-Federal H facil hrs of opern limited to 0700–1900 UFN.

HUGHESVILLE RDO: H facil has erratic ADF action 2–4 nmi from stn in E quad at min instr alt.

IMPERIAL RDO: VOR unusable from 150 to 170° below 8000′ and from 345 to 360° below 14,500′ MSL account crs roughness. For V40/41 btn IRL and ABC VORTAC below 8000′ MSL utilize AGC 330° rad.

LANCASTER RDO: VOR unusable below 5000′ MSL beyond 15 nmi, below 6000′ MSL beyond 25 nmi from 320-340° acct crs scalloping.

LATROBE RDO: VOR unusable all alts all azimuths beyond 20 nmi due crs vagaries.

PITTSBURGH, ALLEGHENY RDO: H facil brgs unreliable SW quad beyond 20 mi all alts due to excessive needle oscillations.

SELINSGROVE RDO: VOR unusable 26 nmi from 105° clockwise to 115°; 35 nmi 210–230°, 26 nmi 250–285° at MOCA. TACAN unusable beyond 30 nmi 100–155° beyond 35 nmi 115–170° beyond 35 nmi 115–170° beyond 35 nmi 190–300° at MOCA. Unusable intermediate awy 110° rad to int ABE rad 198°.

THORNHURST RDO: VORTAC unusable beyond 15 nmi below 6000′ MSL 300–330°.

YARDLEY RDO: VOR unusable below 1700′ MSL beyond 17 nmi 250–265°; beyond 10 nmi 265–280°; beyond 17 nmi 280–290° account crs roughness. TACAN unusable below 2400′ MSL beyond 15 nmi, below 5000′ MSL beyond 30 nmi 225–275° acct roughness and DME unlock.

RHODE ISLAND

PROVIDENCE RDO: VOR unusable beyond 30 nmi below 3000′ acct reduced coverage from 220–310°.

SOUTH CAROLINA

ALLENDALE RDO: VOR unusable below 4500′ MSL beyond 20 nmi on 171° rad acct crs scalloping.

FLORENCE RDO: VOR rad 005° unusable beyond 20 nmi acct bends. TACAN unusable 340–090° beyond 30 nmi acct roughness.

MYRTLE BEACH RDO: VOR rads 220–245° unusable below 2500′ MSL beyond 15 nmi.

SOUTH DAKOTA

MITCHELL RDO: VOR restricted to VFR use only UFN.

MOBRIDGE RDO: State owned and operd VOR operg 0700–1900, VFR use only. Class: L–VOR. Freq: 108.6, receivers 122.1. Ident MBG. Lctd lat 45°33′–07″, long. 100°21′56″.

RAPID CITY RDO: VOR unusable 305–315°.

WATERTOWN RDO: TACAN unusable 218–238° between 19–25 mi acct crs roughness.

TENNESSEE

GRAHAM RDO: VOR 235° rad (V16S) unusable 0 to 23 nmi roughness and bends.

HOLSTTON MOUNTAIN RDO: VOR 315–015° rads unusable beyond 18 nmi below 14,500′ MSL.

NASHVILLE RDO: VOR unusable beyond 30 nmi 090°–110°.

TEXAS

AMARILLO RDO: TACAN unusable beyond 15 nmi b low 7,000′ MSL 110–235° acct roughness.

AUSTIN RDO: VOR unusable beyond 35 nmi belo 3500′ MSL 260–320°.

BROWNWOOD RDO: VOR coverage restricted to 2 nmi at min instr alt 015–085°.

EL PASO RDO: TACAN unusable beyond 30 nmi MOCA from 265° clockwise thru 300°.

FORT WORTH, GREATER SOUTHWEST RDO TACAN unusable beyond 30 nmi below 3000′ MSL.

HOUSTON RDO: TACAN unusable beyond 35 nmi b low 2500′ MSL 085–210°.

GALVESTON RDO: TACAN unusable beyond 20 nr below 3000′ MSL 040–075 °acct crs roughness.

LUBBOCK RDO: VOR unusable on 004° rad from to 25 nmi acct freq interference.

PALACIOS RDO: TACAN unusable 265–330° ac roughness.

WACO RDO: TACAN unusable beyond 13 nmi belo 5000′ MSL 175–195°.

WINK RDO: TACAN unusable beyond 17 nmi below 70 MSL 030–080°.

UTAH

CEDAR CITY RDO: VOR unusable beyond 40 nmi b low 17,500′ MSL 065–090°; below 22,000′ MSL 0 100°; below 24,000′ MSL 100–140°; below 20,0 MSL 140–150°; below 17,000′ MSL 150–170° acco reduced coverage.

DELTA RDO: VOR unusable beyond 40 nmi belo 16,000′ MSL 040–080° acct reduced coverage.

HANKSVILLE RDO: VORTAC coverage restricted fro 160 thru S to 190° 26nmi at 14,000′ MSL.

LUCIN RDO: VOR unusable beyond 40 nmi belo 15,000′ MSL 180–220°; below 12,000′ MSL 280–310 below 11,000′ MSL 310–330° account reduced covera

MILFORD: Jet Route 107 from Milford, Utah V to Rock Springs, Wyo. VOR continuous navigati signal coverage does not exist over the entire rou segment below 28,000′. VOR moderate to hvy roug ness over mountain ridges on 072 rad 10 mi out. TACAN momentary crs excursion and roughness excess of 3° exists on TACAN rads.

OGDEN RDO: VORTAC unusable beyond 40 nmi b low 21,000′ MSL 360–055°; below 16,500′ MSL 0 thru 075°; below 22,000′ MSL 075 thru 130° accou reduced coverage.

PROVO RDO: VORTAC unusable beyond 40 nmi belo 15,000′ MSL 010–035°; below 16,000′ MSL 035–05 below 15,000 MSL 275–285°; below 14,000′ MSL 28 295° acct reduced coverage. VOR roughness exists or mountain ridges N thru E btn 15 and 20 nmi.

SALT LAKE CITY RDO: VORTAC unusable beyo 40 nmi below 19,000′ MSL 010–020°; below 20,0 MSL 020–030°; below 23,000′ MSL 030–060°; belo 24,000′ MSL 060–080°; below 19,000′ MSL 080–09 below 17,000′ MSL 095–125°; below 16,000′ MSL 12 140°; below 16,000′ MSL 195–210°; below 10,0 MSL 280–290°; below 16,000′ MSL 350–010° acct r duced coverage.

VERMONT

BURLINGTON RDO: VOR unusable beyond 35 nm from 080° clockwise to 105°; 25 nmi 115–135°; 30 nm 135–155° at MOCA.

ONTPELIER RDO: VOR unusable beyond 30 nmi 205–220°; beyond 25 nmi 220–235°; beyond 30 nmi 234–280° at MOCA.

VIRGINIA

3OOKE RDO: TACAN distance unusable beyond 30 nmi 230° clockwise to 270° MOCA.

ERNDON RDO: VOR portion of VORTAC unusable elow 2500′ MSL. Beyond 30 nmi from 050–075°; eyond 20 nmi from 075–095°; beyond 35 nmi from 05°–120°; beyond 20 nmi from 165°–215° acct of rs roughness. V39 E 209° usable 5000′ and above eyond 20 nmi.

.WRENCEVILLE RDO: VOR unusable below 1800′ MSL beyond 8 nmi 215–250°; 14,500′ MSL to 18,000′ MSL 215–270° account roughness. MEA V–155 3000′ MSL btn LVL VOR and Franklinton, N.C. Int. MEA 5–454, 5000′ MSL btn LVL VOR and LIB VOR. 'hangeover point 82 nmi from LIB VOR.

NDEN RDO: DME unusable below 3500′ beyond 25 nmi 40–180°; below 5000′ 180–225° acct reduced coverage.

)NTEBELLO RDO: VOR unusable 110–220° beyond 5 nmi at MOCA. 058 rad unusable above 14,500′.

'LASKI RDO: VORTAC unusable beyond 35 nmi rom 045° clockwise to 060° at MOCA.

'ANTICO MCAS RDO: Use LFR as H facil only.

)ANOKE RDO: Woodrum VOR unusable beyond 30 nmi from 360 to 285°, 20 nmi 286–360° at MOCA. H facil unusable beyond 40 nmi from 240 to 010° elow 6000′ due excessive needle oscillation.

WASHINGTON

:LLINGHAM RDO: Intermittent roughness may be bserved on V–23 below 6000′ MSL from 40 nmi thru 0 nmi S of VOR.

:AH BAY RDO: H facil unusable 100–130° below 5 0′ MSL acct terrain.

YMPIA RDO: VORTAC' unusab'e below 7500′ MSL t 40 nmi 210-260°. TACAN unusab'e below 15,000′ ISL 260-270° at 40 nmi; below 9500′ MSL at 35 nmi 70–280° account reduced coverage. VOR 348° rad unusable below 4500′ MSL beyond 24 nmi.

S'O RDO: VOR unusable below 6500′ MSL beyond 0 nmi 150–210°; below 5500′ MSL 210–270° acct re-

duced coverage. Coverage within R-6715 from 270–320° not flt checked.

PORT ANGELES RDO: VOR coverage 40 nmi: 220–110° at 7000′; 110 140° at 14,500′; 140–150° at 20,500′; 150–170 °at 29,000′; 170–190° at 20,500; 190–220° at 16,000′.

SEATTLE RDO: LFR NW crs has splits and multiples beyond 20 nmi. VOR unusable beyond 10 nmi 158° clockwise 165°. 300° rad unusable below 14,000 within 40 nmi.

WALLA WALLA RDO: VOR coverage at 40 nmi restricted below 6000′, 355-020° and 148–176°; below 7500′ from 130–150°; below 10,500′ from 020–060° and 110-130°; below 12,700′ from 065-110°.

WENATCHEE RDO: VOR unusable beyond 20 nmi below 20,000′ MSL 000–020° beyond 30 nmi below 20,000′ MSL 020-075° beyond 40 nmi below 14,000′ MSL 075-090° below 18,000′ MSL 090–190° below 10,000′ MSL 190–240°.

WEST VIRGIN'A

BEC'KLEY RDO: VOR unusable beyond 20 nmi 325–350° below 5000′ acct crs roughness, excluding 335° rad at Montgomery Int. Voice reception Charleston FSS unreliable below 7500′ MSL 40 nmi radius Beckley VOR 030–180°. Reception satisfactory with acft o:er VOR or MEA.

WISCONSIN

LA C'ROSSE RDO: VOR unusable 100–150° and 230–060° below 3300′ MSL beyond 20 mi.

MILWAUKEE RDO: Timmerman VOR unusable beyond 35 mi 300–310° below 3400′ MSL acct reduced coverage. Alarm status MKE VOR indicated by transmission of unkeyed 1020 cycle ident signifying unusability for nav and indicating imminent equipment transfer shutdown.

WYOMING

BOYSEN RESERVOIR RDO: VORTAC has mementary crs excurisions and roughness all radials.

DUNOIR RDO: VOR restricted to awy rad use only.

SHERIDAN RDO: VORTAC unusable below 40 nmi below 17,000′ MSL 160–175°; below 15,000′ MSL 175–200° and below 16,500′ MSL 300–230° acct reduced coverage.

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of the Check Points is explained in Section I–4.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); a: altitude (in feet MSL, if any).

AIRBORNE

Abilene, Tex. (Municipal): 047°; 10.1 nmi silos in center of Ft. Phantom alternate for lgt acft 099° 9 nmi ctl twr and bcn.

Alexandria, La. England AFB): 329°; over water tank.

Alexandria, La. (Esler): 152°; over hangar 3.6 nmi from VOR.

Alexandria, Minn.: 223.5°; over apch end of rnwy 22.

Allendale, S.C.: 342°; over N/S rnwy on Barnwell Co. Arpt.

Anniston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000′.

Appleton, Ohio: 238°; over ctl twr Columbus, Ohio-Port Columbus Airport; 2500′.

Asheville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from VOR; 3000′.

Athens, Ga.: 308°; 3 nmi over center of three rdo twrs.

Atlanta, Ga.: Lctn #1—012°; over end rnwy 09L. Lctn #2—020°; over end rnwy 27R.

Augusta, Ga. (Bush Field): 141°; directly over No. 17 of rnwy #17; 300′.

Augusta, Me. (State): 257°; over LFR, 1.8 nmi from AUG VOR; 1500′.

Austin, Tex. (Mueller Mun): 178°; Freeway Int aprxly 0.9 nmi N of Mueller Mun Arpt.

Bakersfield, Calif. (Meadows Fld): 127°; over apch end rnwy 30; 1200′.

Bangor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000′.

Bartlesville, Okla. (Phillips): 161°; over Phillips oil tank—white ½ mi E of arpt trml.

Baton Rouge, La. (Ryan): 064°; over tank S side of arpt.

Beatrice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500′.

Beaumont, Tex. (Jefferson County): 056°; water twr aprxly 0.4 mi NE of NE end of rnwy 2.

Bellingham, Wash.: 145°; N end of rnwy 16–34; 660′.

Big Spring, Tex.: 199°; over the rdo bcn; 1000′ AGL.

Billings, Mont. (Municipal): 073°; Intersection of rnwys 4–22 and 9–27; 4600′.

Blackstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 1500′.

Bloomington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI VOR at railroad crossing river; 2000′.

Boise, Idaho (Air Trml): 086°; over dam outlet S e: Lucky Peak Reservoir, 8.5 nmi from VOR; 5000′.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000′.

Brownsville, Tex. (Rio Grande Valley Intl): 244°; wat twr in bldg area of arpt.

Brownwood, Tex: 167°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating b con.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burli ton Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control t 4.4 nmi from VOR; 2000′.

Butler, Mo.: 073°; over FSS bldg.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500′.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E and NW/SE rnwys SE of new ctl twr; 2200′.

Casper, Wyo. (Air Trml): 201°; over intersection rnw 21–25–30; 6300′.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr.: 014°; railroad intersection 1.5 nmi N a bndry.

Champaign, Ill.: 175°; over grain elevator 8 nmi S Pesotum, Ill.; 2000′.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cle land Rbn (H) distance 13.5 nmi; 1500′.

Colorado Springs, Colo. (Peterson Fld): 320°; over mic wave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corn of Red Bank, N.J. Arpt.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 n E of arpt.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl A

Crescent City, Calif. (McNamara Fld): 104°; over Tar farm E side of town; 1000′.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over met hangar.

Cut Bank, Mont.: 312°; over center rnwy 31; 4800′.

Daggett, Calif.: 224°; over center twr LFR; 2500′.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 a 17; 1700′.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10 nmi; 2500′.

ytona Beach, Fla. (Mun) : 157° ; over remote ctld air/gnd facility antenna.

ster, Ala. (Pryor) : 092° ; over intersection of rnwy and taxiway 236° from HSV ; 1000′.

lla, Utah: 346° ; at apch end of rnwy 34 ; 4900′.

ver, Colo.: 189° ; over EGW rdo bcn ; 5800′.

s Moines, Iowa: 356° ; center twr of DSM LFR, 4.2 nmi from VOR.

glas, Ariz. (Bisbee-Douglas Intl) : 119° ; over intersection rnwy 12–30 and 17R–35L ; 4700′.

blin, Ga. (Municipal) : 067° ; over SW end NE/SW rnwy.

ho, Idaho (Municipal) : 335° ; FAA Communications Bldg ; 5200′.

gle Lake, Tex.: 181° ; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

Dorado, Ark. (Goodwin) : 228° ; trml bldg E side of arpt.

nsburg, Wash. (Bowers) : 255° ; center, W end of rnwy 7–25 ; 2300′.

oria, Kans.: 046° ; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

ville, Wash.: 200° ; centerline, SW end of rnwy 2–20 ; 1500′.

rgreen, Ala.: 100.7° ; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nmi from VOR.

go, N.Dak. (Hector) : 360° ; lctd apch end Hector Fld rnwy 35.

rrington, Mo.: 195° ; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR : 2300′.

yetteville, Ark.: 183° ; VORTAC ; white circle on arpt ; 2500′.

yetteville, N.C.: 239° ; over water twr at Parktown, N.C. 8.0 nmi ; 1200′.

more, Calif.: 210° ; at CAV rdo bcn 1800′.

dley, Ohio: 048° ; over the Ohio Oil Company Admin Bldg at 2000′ ; aprxly 5 nmi from FDY VOR.

d, Mich. (Bishop) : Pontiac VOR 332° ; over apch end rnwy 9 ; 2200′.

ng Cloud, Minn.: 349° ; 4.5 nmi over smokestack at Glen Lake Sanatorium ; 2000′.

t Leonard Wood, Mo. (Forney AAF) : 351° ; water twr N side E–W hvy dist 4.9 nmi from transmitter.

t Smith, Ark.: 232° ; water tank at N edge of arpt ; 1300′.

ata, Calif.: 358° ; over intersection of rnwys Arcata Arpt ; 500′.

una, Calif. (Rohnerville) : 128° ; over apch end of rnwy 11 ; 1400′.

ino, Calif. (Air Trml) : 133° ; over apch end rnwy 11 ; 500′.

ge, Okla.: 094° ; over LFR ; 3000′.

lveston, Tex.: 110° ; arpt terminal bldg.

rion City, Kans.: 100° ; Cimarron, Kans. at RR tracks and Main St.

rcester, Mass.: 169° ; hangar mrkd "WORCESTER" on roof, Worcester Arpt ; 1000′.

a Bend, Ariz.: 193° ; over apch end of rnwy 35 of Gila Bend Aux. Fld ; 1500′.

Goodland, Kans. (Mun) : 083° ; over water twr NE edge of town of Brewster, Kans., 16 nmi ; 4000′.

Gordonsville, Va.: 305° ; over intersection of rnwy and center txwy Charlottesville-Abermarle Arpt., 16 nmi from GVE–VOR ; 2000′.

Grand Forks, N. Dak.: 315° ; over Int N/S and E/W rnwys ; 1900′.

Grand Island, Nebr.: 141° ; over smoke stack 5.5 nmi from VOR ; 3100′.

Grand Junction, Colo. Walker Fld) : 059° ; int rnwys 29 and 22 ; 6500′.

Grants, N. Mex.: 295° ; in flt over FSS adj to rnwy ; 7000′.

Great Falls, Mont.: 026° ; center NE end rnwy 3–21 ; 3900′.

Hallsville, Mo.: 225° ; 14 nmi Int of E/W and N/S rnwys over Columbia Mun Arpt., Mo. ; 2000′.

Harlingen, Tex.: 149° ; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State) : 109° ; over triangle formed by rnwys : 2000′.

Hattiesburg, Miss. (Mun) : 149° ; over water twr and rotating lgt bcn on arpt 10 nmi, 800′.

Hayes Center, Neb.: 258° ; 28 nmi over center of town of Enders, Neb. ; 4500′.

Hibbing, Minn.: 311° ; over FSS Bldg ; 2400′.

Hickory, N.C.: 225° ; over end rnwy 24.

Hill City, Kans.: 057° ; Hill City Arpt bcn lgt 23 nmi from the VOR.

Hobart, Okla.: 352° ; centerline of N/S rnwy 100′ above the elevation of the rnwy.

Hobbs, N. Mex. (Lea County) : 030° ; over circle on runup pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman) : 037° ; W end and center rnwy 6 ; 500′.

Houghton, Mich. (County Mem'l) : 241° ; WHDF com. bdcst twr 3.5 nmi from VOR ; 2100′.

Houlton, Me.: 042° ; over Admin Bldg on E side of flt and 5.5 nmi from VOR ; 1500′.

Houma, La.: 117° ; over intersection of rnwys 17–35 and 11–29.

Houston, Tex. (Andrau) : 276° ; arpt bcn on arpt ; 500′.

Houston, Tex.: 099° ; over intersection of E/W txwy and parking ramp of Ellington Field.

Huron, S. Dak. ((Howes) : 153° ; lctd over HON/SBH ; 2000′.

Hutchinson, Kans.: 032° ; apch end rnwy 3 Hutchinson Mun Arpt.

Imperial, Calif.: 313° ; apch end of rnwy 32 ; 200′.

International Falls, Minn.: 142° ; RR bridge over stream of Ericsburg, Minn 5.4 nmi ; 2200′.

Jackson, Miss. (Hawkins) : 189° ; over arpt intersection of rnwys 11–29 and 34L–16R.

Jackson, Tenn. (McKellar) : 267° ; over bcn twr above arpt ; 1000′.

Joliet, Ill.: 102° ; over centerline of NW end of NW/SE rnwy ; 1500′.

Keeler, Mich.: 266° ; over intersection of N/S and E/W rnwys at Ross Fld, Benton Harbor, Mich. ; 1600′.

Kennebunk, Me.: 061° ; over Portland Arpt control twr 18.5 nmi from Kennebunk VOR ; 1500′.

Kirksville, Mo.: 138° ; over water twr at La Plata, Mo. (8.2 nmi from VOR).

Kokomo, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000′.

La Crosse, Wis.: 321°; 5 nmi LFR; alt 1800′.

Lafayette, Ind.: 135°; over Purdue Univ Stadium, 2100′.

Lake Charles, La. (Mun): 253°; over rotating bcn on ctl twr, 6.2 nmi.

Lamoni, Iowa ((Lamoni): 041°; over hwy "Y" 1 nmi W of Leon, Iowa.

Laredo, Tex.: 315°; over arpt bcn 9.5 DME.

●**Laurel, Miss.** (Municipal): 025°; over water twr and rotating lgt bcn on arpt. 17.5 nmi from HBG VOR, 800′.

Lewistown, Mont.: 072°; above center of rnwy 7; 5200′.

Lexington, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi from LEX VOR; 2500′.

Liberal, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. along Railroad.

Litchfield, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackson, Mich.; 2000′.

Livingston, Mont.: 109°; over ant of Livingston "H" facility; 5700′.

London, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 2500′.

Lufkin, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

Macon, Ga. (Mun): 246°; 4.0 nmi from VOR over water tank; 2000′.

Malden, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

Manchester, N.H. (Grenier Fld-Manchester Mun): 341°; over former USAF arpt ctl twr E side 17–35 rnwy. 5.0 nmi; 1500′.

Marquette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier Lake; 2000′.

Marshall, Tex.: 320°; water twr N of arpt.

Marshall, Mo. (Meml): 321° BWR; over MHL VORTAC Bldg; 2000′.

Marysville, Calif. (Yuba County): 067°; intersection of rnwys; 1500′.

Massena, N.Y. (Richards): 297°; Admin Bldg; 1500′.

McComb, Miss. (Pike County): 248°; revolving arpt bcn.

Medford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000′.

Merced, Calif.: 289°; (Castle VOR); over end rnwy 30; 650′.

Midland, Tex. (Air Trml): 170°; over apch ends of rnwys 22 and 28; 1000′.

●**Miles City, Mont.**: 031°; over apch end of rnwy 4, 3000′.

Millinocket, Me. (Mun): 317°; over FSS Bldg; 1500′.

Milwaukee, Wis. (General Mitchell); 123°; over MKE LFR.

Minneapolis, Minn. (Crystal Arpt): 166°; over apch end rnwy 13L. 4.9 nmi VORTAC; 1500′ nmi.

Minot, N. Dak.: 241°; apch end rnwy 26; 1900′.

Montebello, Va. (Preston Glenn near Lynchburg, Va.): 192°; intersection all rnwys; 2500′.

Montgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

Muskegon, Mich. (County): 256°; over Muskegon LFR; 1500′.

Myrtle Beach, S.C. (AFB): 061°; over apch end rnwy 5 Crescent Beach Arpt.; 500′.

Napa, Calif. (County): 045°; over rotating bcn on arpt 500′.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi N of the DuPage County Arpt; 2000′.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa 2500′.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

NewBern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy arpt.

●**New Orleans, La.** (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton Nebr.; 2600′.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750′.

North Platte, Nebr. (Lee Bird): 82.6°; over water tr Brady, Nebr.; 4000′.

Oklahoma City, Okla. (Will Rogers): 100°; rdo bcn st 1800′.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR I rnwys 17–35 and 12–30; 1800′.

Omaha, Nebr. (Eppley Fld): 309°; centerline of SE e of NW/SE rnwy.

O'Neil, Nebr.: 115°; at intersection of E/W road and t railroad ½ nmi SE of Inman, Nebr.

Ontario, Calif. (Intl: 347°; over and parallel with tw btn rnwy 21 and 25; 2300′.

Oshkosh, Wis.: 017°; WOSH Commercial Bcst twr 3 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair (Arpt; 2200′.

Philip, S.D.: 156°; over 2712′ twr 5 nmi from VOR; 330

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800′.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar Southern Pines, Pinehurst-Southern Pines Arpt.

Pittsburgh, Pa.: 333°; ctl twr, Greater Pittsburgh Arp 3000′.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4- and 12–30, 6 nmi from VOR; 4400′.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt: 150

Pocatello, Idaho: Lctn #1—031°; over apch end of rn #3; 5450′. Lctn #2—029°; over intersection or rt ways 21 and 25; 5450′.

Pontiac, Mich.(Municipal): 113°; over circle of stones SE corner of arpt; 2000′.

Portland, Oreg.: (Intl): 162°; intersection 2 and discontinued 29; 1000′.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess Coun Arpt; 1500′.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersecti 5500′.

Presque Isle, Me.(AFB): 184°; Sprague ville LFR sit 2000′.

Princeton, Maine: 163°; over int of rnwys, 9.63 nmi fro VOR; 1000′.

Pueblo Colo. (Pueblo Mem'l) : 294° ; over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).
Pulaski, Va.: 066° ; bldg on S side of E/W rnwy at VPI Arpt., Blackburg, Va. ; 4000′.
Quitman, Tex.: 241° ; water tank, town of Alba, Tex.
Rawlins, Wyo.: 065° ; (Cherokee VOR), 17 nmi ; 7300′.
Raymond, Nebr.: 082° ; over grain elevator at Waverly, Nebr., 9.8 nmi ; 2500′.
Red Bluff, Calif. (Mun) : 329° ; over centerline rnwy 33 ; 500′.
Rhinelander, Wisc. (Drett Arpt): 210° ; over rnwy Int ; 2500′
Riverhead, N.Y. (Brookhaven Arpt) : 170° VORTAC ; 4.5 nmi over apch end of rnwy 15 ; 1500′.
Roswell, N. Mex.: 027° ; over apch end rnwy 3 ; 400′.
Royston, Ga.: 067° ; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt ; 1250′.
Russell, Kans.: 091° ; over water twr in center of town of Wilson, Kans.
Sacramento, Calif.: 015° ; apch end rnwy 02 ; 100′.
St. Joseph, Mo. (Rosecrans Mem'l) : 167° ; centerline of the extreme N end of the N/S rnwy.
Salina, Kans.: 115.5° ; over town of Kipp, Kans., 12 nmi from VOR and 6 nmi SE of Mun Arpt.
Salt Lake City, Utah: 158° ; centerline rnwy 34L/16R entire length #1 Arpt ; 4400′.
Samsville, Ill.:064° ; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill. ; 1500′.
Sault Ste. Marie, Mich. (Mun) : 336° ; int E–W and NW/SE rnwys ; 2100′.
Sayre, Okla. (Mun) : 175° ; over rot bcn twr ; 3000′.
Sheridan, Wyo. (County) : 122° ; over center of apch end rnwy 13, distance 4.9 nmi ; 4500′ MSL.
Shreveport, La. (Downtown) : 011.2° ; over water tank N of arpt, distance 1.3 nmi.
Shreveport, La. (Greater Shreveport) : 175° ; over the Admin Bldg.
Stinton, Tex.: 318° ; over bcn on fld 9.5 nmi CRP VORTAC.
Smithwick, S. Dak.: 300° ; on Hot Springs, S. Dak. Arpt at intersection E/W taxiway and N/S rnwy.
South Boston, Va.: 254° ; over trml bldg Danville Mun Airport ; 1500′.
Spokane, Wash. (Intl) : 027° ; center NE end rnwy 21 ; 2900′.
Stevens Point, Wisc.: 314° ; over ant twr 5 nmi NW of VOR ; 2500′.
Stockton, Calif.(Mun) : 299° ; over water twr adjt to S side of arpt ; 1000′.
Sulphur Springs, Tex.: 229° ; over awy bcn lgt on SE corner of arpt.
Syracuse, N.Y. (Hancock Arpt) : 135° ; over ctl twr 4.75 nmi from VORTAC ; 2000′.
Talladega, Ala.: 029° ; over Anniston, Ala. Arpt.
Tallahassee, Fla. (Mun) : 241° ; over twr on arpt.
Terre Haute, Ind. (Hulman) : 229° ; int of NE/SW and NW/SE rnwy ; 2000′.
Texarkana, Ark.: 123° ; over rdo bcn ; 1000′.
Thibodaux, La.: 117° ; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.
Thief River Falls Minn.: 124° ; over RR & hiway crossing adj Hazel, Minn. ; 2000′.
Thurman, Colo.: 349° ; in flt over Akron VOR transmitter site ; 5600′.
Topeka, Kans. (Philip Billard) : 073° ; at hiway intersection 1.5 nmi SE McLouth, Kans.
Traverse City, Mich. (Municipal) : 342° ; at intersection of the N/S–E/W rnwys ; 1600′.
Troy, Ill.: 322° ; over int of rnwys 17 and 11 at Civic Mem'l Arpt., Alton, Ill. ; 1600′.
Tucson, Ariz.: 258° ; main rnwy intersection ; 2800′.
Utica, N.Y. (Oneida Co.) : 319° ; over ctl twr bldg ; 11.93 nmi from RVOR ; 1500′.
Valdosta, Ga.: 006° ; over lgt bcn E side of arpt.
Vandalia, Ill.: 179° ; centerline at N end N/S rnwy.
Vienna, Ga. (VORTAC) : 226° ; over center of NE/SW rnwy, Cordele, Ga., Arpt.
Waco, Tex.: 139° ; over the dam of Lake Waco.
Waterloo, Iowa: 127° ; 8 mi over center twr KWWL broadcast stn ; 2000′.
Waterville, Ohio: 181° ; over Admin Bldg University Arpt., Bowling Green, Ohio aprxly 4.0 NM from VWV VOR ; 2000′.
West Point, Ind. (VORTAC) : 036° ; over int of rnwys Purdue Univ Arpt ; 2000′.
Wichita, Kans.: 161° ; centerline of NW end of NW/SE rnwy.
Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Air Trml) : 011° ; at bridge over Red River 8 nmi N of Sheppard AFB ; 1500′.
Wilkes Barre, Pa.: 243° ; ctl twr, Wilkes Barre-Scranton Arpt ; 3000′.
Williston, N. Dak. (Sloulin Fld) : 121° ; apch end rnwy 11 ; 2600′.
Willmar, Minn.: 289° ; over twr at Pennock, Minn. ; 2200′
Willows, Calif. (Willows-Glenn) : 346° Maxwell VOR ; over large green hangar NE side of arpt ; 1000′.
Wilmington, N.C. (New Hanover Co.) : 204° ; over wea radar ant on arpt 5.5 nmi ; 1000′.
Wink, Tex. (Winkler Co.) : 149° ; over int rnwy 22 and 13 5.9 nmi VOR ; 3818′.
Winner, S.D. (Mun) : 201° ; over center of race track 0.5 nmi.
Winona, Minn.: 102° ; over orange and white transmission line twr N bank of Mississippi River 3.8 nmi from VOR ; 1600′.
Winslow, Ariz.: 106° ; intersection rnwys 4–11 ; 5100′.
Winston-Salem, N.C.: 295° ; over ctl twr.
Worland, Wyo. (Municipal) : 010° Boysen Reservoir VORTAC ; over taxi strip between Trml Bldg and rnwy 16–34 ; 5200′.
Worthington, Minn.: 047° ; over grain elev at Brewster, Minn. ; 2800′.
Yakima, Wash.: 246° ; intersection N/S and E/W rnwys ; 1600′.
Yankton, S.D.: 256° ; 7 nmi over twr ; 2500′.
Yuma, Ariz. (MCAS/Yuma Intl) : 166° ; centerline rnwy 17–35 ; 400′.

GROUND

Aberdeen, S. Dak. (Saunders) ; 304° ; midway and center of N/S taxi strip leading from S edge ramp on E side arpt.

Albany, Ga.: 149.5°; center of tie down area on N edge or ramp.

Alexandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin Bldg.

Alice, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N of hangar.

Allentown, Pa. (Allentown-Bethlehem-Easton): 178°; on rnwy 17 near the intersection of rnwy 24.

Amarillo, Tex. (AFB/MUN): 207°; lctd 985′ SE of centerline on NE end of the NE/SW rnwy.

Amarillo, Tex. (Tradewind Arpt): 003°; Send on curve of taxiway 50′ W apch end rnwy 35 centerline.

Anderson, S.C. (Mun): 038°; on ramp in front of trml bldg.

Ardmore, Okla. (Mun): 045°; adjt to S end of NS rnwy.

Atlantic City, N.J. (Pomona) **NAFEC**: Lctn #1—313°; on runup pad at apch end rnwy 13, 250′ from centerline rnwy 13–31. Lctn #2—230°; on runup pad at apch end rnwy 4, 500′ from centerline rnwy 4–22. Lctn #3—208°; on runup pad at apch end rnwy 35, 250′ from centerline of rnwy 17–35. Lctn #4—121°; on runup pad at apch end rnwy 31, 250′ from centerline of rnwy 13–31.

Baltimore, Md. (Friendship Int'l): Lctn #1–293°; centerline of rnwy 10–28 on old runup pad. Lctn #2—290°; 400′ N of centerline of rnwy 10–28 on runup pad.

Bartlesville, Okla. (Phillips): Lctn #1—167°; S end parallel taxi strip. Lctn #2—166°; N end parallel taxi strip. Lctn #3—166°; opposite trml parallel taxi strip.

Beaumont, Tex. (Jefferson County): 051°; W edge of N end of parking ramp.

Bemidji, Minn: 130°; SE corner of Trml ramp.

Big Spring, Tex. (Howard County): 140°; ctr of runup area to rnwy 16.

Binghamton, N.Y. (Broome County): 077°; 400′ S of ctl twr on S ramp south.

Bismark, N. Dak.: 275°; intersection of N/S taxi strip and the apch end of rnwy 13.

Blythe, Calif. (Riverside Co.): 048°; on ramp 500′ in front of FSS Bldg.

Boise, Idaho (Air Trml): 084°; center N/S taxiway between rnwys 28L–10R and 28R–10L on fld.

Bowling Green, Ky. (Bowling Green-Warren County): 021°; taxiway in front of Admin Bldg.

Bristol, Tenn. (Tri-City): 282°; SW end of ramp in front of trml bldg.

Brownsville, Tex. (Rio Grande Valley Intl): 248°; apch end rnwy 13L.

Carlsbad, N. Mex.: 334°; immediately W of FSS and twr bldg on ramp.

Chattanooga, Tenn. (Lovell): 332°; centerline S taxiway at point 175′ NE of centerline rnwy 32.

Cheyenne, Wyo.: 199°; on yellow line on taxi strip immediately SE or apch end rnwy 8.

Chicago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 nmi on SW corner of N parking ramp at int of txwy to rnwy 15 and txwy paralleling rnwy 15–33.

Childress, Tex.: 353°; intersection of edge of ramp at center taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 095°; on W edge of parking ramp of Easterwood Arpt.

Columbia, S.C. (Owens Fld): 022°; compass rose on parking ramp.

Columbia, S.C. (Mun): 331°; circle 450′ S of ctl twr at 235′.

Columbus, Ga. (Muscogee Co.): 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM–TPA): 298°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison): 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun); 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/S rnwy.

Dothan, Ala. 186°; intersection of ramp and taxi strip NW of trml bldg.

Dubuque, Iowa: 335°; on ramp in front of terminal bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 2 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of ctl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150′ W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): Lctn #1—028°; lctd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of apron aprxly 198′ S of C/L rnwy 10 and 374′ N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie): 059°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Amin Bldg.

Fayetteville, N.C. (Grannis): 305°; on rnwy turnoff in front of ctl twr.

Florence, S.C.: 235°; on taxiway W of the end of rnwy 1.

Fort Benning, Ga. (Lawson AAF): Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—019° run up area on txwy W ctl twr at intersection of rnwy 02–20 and 14–32. Lctn #3—055°; run up area on txwy S of ctl twr at junction with rnwy 14. Lctn #4—130°; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt) : 120° ; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page) : 172° ; N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF) : 030° ; on SE corner of tie down area and taxiway apchg rnwy 4.

Fort Rucker, Ala. (Cairns AAF) : Lctn #1—019° ; run up area on txwy apch end rnwy 13. Lctn #2—035° ; NW of Int rnwy 13 and 18. Lctn #3—040° ; run up area on txwy Int rnwy 13 and 18. Lctn #4—059° ; run up area on txwy N of apch end rnwy 24. Lctn #5—063° ; run up area on txwy S apch end rnwy 24. Lctd #6—058° ; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078° ; run up area on txwy W of apch end rnwy 36. Lctn #8—062° ; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116° ; on ramp N of terminal.

Goldsboro, N.C. (Seymour Johnson AFB) : 028° ; run up pad at apch end rnwy 8.

Green Bay, Wis. (Austin-Straubel) : 141° ; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C.: 213° ; Ramp in front of twr.

Greenwood, Miss.: 060° ; central taxiway adj to ramp.

Greenwood, S.C. (County) : 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098° ; on arpt.

Harrison, Ark.: 131° ; Int taxiway and ramp.

Helena, Mont. (City-Co.) ; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County) : 030° ; on runup pad apch end rnwy 3.

Hot Springs, Ark.: 245° ; taxiway adj to rnwy 5.

Houston, Tex.: 292° ; NE end rnwy 12.

Hyannis, Mass. (Barnstable Mun) : 243° ; ictd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld) : 007° ; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.) : 202° ; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 258° ; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County) : 155° ; taxiway to rnwy 33.

Junction, Tex. (Kimble County) : 143° ; N edge of parking ramp.

Key West, Fla. (Boca Chica) : 091° ; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l) : 131° ; NW portion of ramp.

Kinston, N.C. (Stallings) : 230° ; 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294° ; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350° ; on taxiway at N end N/S rnwy. Lctn #2—343° ; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106° ; on compass rose at taxi strip intersection aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City) : 053° ; center of apch end rnwy 5.

Laramie, Wyo. (Brees) : 100° ; on loading ramp.

Laredo, Tex. (AFB) : Lctn #1—137° ; off end of ramp on taxiway 2, 4.8 nmi. Lctn #2—131° ; off S end of ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315° ; on ramp adj to apch hcn.

Las Vegas, Nev. (McCarran Fld) : 351° ; on run-up area W side rnwy 19.

Las Vegas, N. Mex.: 231°, concrete ramp N of FSS Bldg.

Lawton, Okla.: 349° ; on trml apron at the point intersecting the S taxi strip.

Little Rock, Ark. (Adams) : 314° ; on taxi strip adj to junction rnwy 14.

Longview, Tex. (Gregg County) : 125° ; txwy adj to rnwy 13 to end of rnwy 13.

Louisville, Ky. (Bowman) : 329° ; taxiway W of rnwy 1.

Louisville, Ky. (Standiford) : 301° ; taxiway between ramp and rnwy 19.

Lubbock, Tex.: 111° ; W edge of ramp N of trml bldg.

Lufkin, Tex.: (Angelina Co. Arpt) : 328° ; Intersection of ramp and taxiway in front of Trml Bldg.

Mansfield, Ohio (Mun) : 133° ; at intersection of NW and SW taxiways.

Marfa, Tex. (Alpine) : 108° ; S edge of ramp in front of FSS.

Marianna, Fla.: 310° ; ESE end taxiway 6.

Marshall, Tex. (Harrison Co Arpt) : 318° ; Int of E and N/S taxiway in front of N ramp.

Martinsburg, W. Va.: 281° ; near apch end of rnwy 35.

Mason City, Iowa: 356° ; on centerline S end of N/S rnwy.

McAlester, Okla. (Mun) : 350° ; taxistrip at terminal ramp.

McAllen, Tex. (Miller Int'l) : Lctn #1—040° ; at intersection E/W txwy and N/S txwy. Lctn #2— 012° ; in front airline trml on gate two loading spot,.

Melbourne, Fla. (Eau Gallie) : 146° ; 220′ E of FSS.

Meridian, Miss. (Ky) : 121° ; from run up ramp for rnwy 23.

Midland, Tex. (Air Trml) : Lctn #1—188° ; center of warm up pad for rnwy 10. Lctn #2—178° ; int txwy C and ramp in front of Trml Bldg.

Mineral Wells, Tex.: 307° ; intersection of txwy and NW rnwy.

Missoula, Mont. (County) : 340° ; 5′ from edge of ramp in front of Admin Bldg.

Mobile, Ala. (Bates) : 107° ; Int of N/S and E/W txwys E of rnwy 18–36. 109.5° ; Int of W ramp and W txwy.

Monroe, La. (Selman) : 033° ; arpt ramp in front of twr structure adj to the txwy leading to intersection of rnwys 17–35 & 4–22.

Muscle Shoals, Ala.: 289° ; eastern end of E/W rnwy 11–29 equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial) : 241° ; taxiway apchg rnwy 24.

Needles, Calif. (Site 25B, LAX–AMA) : 253° ; on ramp in front of Admin Bldg.

New Bern, N.C.: 088° ; on compass rose at ramp.

New Orleans Intl, La. (Moisant Fld) : 235° ; center of perimeter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun) : 031° ; center of txwy "E", 250′ NW of centerline of rnwy 22.

Oakland, Calf. (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Olympia, Wash.: 347°; on ramp in front of Admin Bludg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Palacious, Tex.: 119°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050' N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150' S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 239°; intersection of centerlines of N/S rnwy and E/W txwy of arpt.

Pendleton, Oreg.: 076°; 200' W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; center of warmup pad S of apch end rnwy 27.

Pueblo, Colo.: 244°; painted circle with arrow on ramp W of Admin Bldg.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60' W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo. (Mun): 178°; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, Minn.: 030°; of taxiway that enters apch end of rnwy 31.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415' from centerline rnwy 1–19 and 305' from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn around E end rnwy 25. Lctn #2—261°: in cente of turn-around W end rnwy 7.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 263°; right 3 rnwy 33, marker.

Rome, Ga. (Russeell Fld): 348°; Intersection of taxiway 200' S of the terminal bldg.

Saginaw, Mich. (Tri-City): 280°; lctd on NE parkit ramp 12' from field edge near center txwy.

St. Paul, Minn., (Downtown Arpt): 291°; over drain i center of int parking ramp and taxiway in front o trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parki ramp 500' SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°: o center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, direct in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ram front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in fro of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1; 329R, run u area at apch end rnwy 9. Lctn #2: 335R, on W en ramp opposite hangars 1 and 2.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway N trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bld over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy Santa Catalina Arpt.

Santa Fe, N. Mex. (New Municipal): 334°; at junctio main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800' N trn bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposi trml bldg and W of txwy leading to rnwy 30 aprx 3000' from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30' near ed of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front new twr.

Sioux Falls, S. Dak.: 148°; in line with E edge of txwy of ctl twr, 75' S from N edge of parking ramp.

South Bend, Ind. (St. Joseph Co.): 178°; center of weste N/S txwy 200' N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at com pass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at inte section NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400' S of end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°: runup area a apch end runway 09. Lctn #2, 335°: on W end o ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250' in front of hangar.

Topeka, Kans. (Philip Billard Arpt): 212°; N/S taxiwa W of tetrahedron.

Truth or Consequences, N. Mex.: 155°; on SE/NW txwy ad to wind cone.

Tucumcari, N. Mex.: Letn #1—255°; over square metal plate letd on hangar ramp paved area. Letn #2—266°; over painted orange circle, letd on taxi strip 100' off end of rnwy 8.

Tulsa, Okla. (Int'l): Letn #1—260°; W end rnwy 8. Letn #2—266°; on txwy SW corner AAL ramp. Letn #3—265°; in runup position for rnwy 17R.

Tuscaloosa, Ala. (Van De Grauff): 241°; point letd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300' SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on center line of NE/SW rnwy 125' from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex., (Muni): 132°; ramp N of terminal.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 050°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; letd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100' N of wind tee, 30' from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.:304°; from center of compass rose letd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; Int of txwy to rnwy 9 and center txwy.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngtown, Ohio: 182° compass rose end of rnwy 18.

Zanesville, Ohio: 010°; on arpt 270' NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with FAR PART 91.89(c)(3))

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
Atlanta, Ga.	9R, 9L	No turns until 3 miles, 2500′ for *large acft.	
	27R, 27L	No turns until 3 miles, 2500′ for *large acft.	
	15	No turns by *large acft. over more populated areas until 3 mi., 2500′.	
	21	Turn south when speed & altitude permit, or as directed by ATC.	
Betts AAF, Tobyhanna Supply Depot, Pa.	14	Right hand tfc pattern.	
Burlington Mun., Vt.		Single engine.	1140′ MSL
		Multi engine.	1340′ MSL
•Caldwell-Wright, Fairfield, N.J.	27	Acft shall not start crosswind leg until well past the school lctd ¼ mi to the right of the extended rnwy centerline and ¼ mi from the arpt.	1000′ AGL (all rnwys)
Chicago–Midway, Ill.		Turbine powered acft climb as rapidly as possible.	2000′ AGL
Chicago–OHare I'ntl Arpt., Ill.		Turbine powered acft climb as rapidly as possible.	2000′ AGL
•Dover ABF, Del.	01	Right hand tfc pattern.	
	31	Right hand tfc pattern.	
•Fresno Air Terminal, Calif.	29R	*Large reciprocating and turboprop aircraft*–climb on rnwy heading to 1000′ AGL, before starting left turn prior to leaving or continuing to oper in the left tfc pattern.	Turbojets–2000′ AGL Turboprops and large reciprocating engine aircraft–1500′ AGL
	25	*Large reciprocating and turboprop aircraft*–climb on rnwy heading to 1000′ AGL before starting left turn prior to leaving or continuing to oper in the left tfc pattern.	
	29R	*Turbojets*–climb on rnwy heading until past Fresno State College before making right turn out of tfc or continuing to oper in the right tfc pattern.	
Gardner, Kans.	East	Recommend alt not above 400′ AGL until cross-wind leg northbound. Exit pattern NW to remain clear of tfc patterns of Olathe NAS, 3.5 mi NE.	
Jennings Arpt, La.	13, 17, 22	Right hand tfc pattern.	
Kansas City Fairfax Mun., Kans.		Acft under 12,500 lbs.	600′ AGL

* Large acft—acft weighing over 12,500 lbs maximum certificated take-off weight.

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
ake Charles, La.	15, 22	Right hand tfc pattern. 1000' slow acft pattern; 1500' turbine powered fixed-wing acft.	
ew York, LaGuardia	13	Rgt turn and proceed over Flushing Meadow Park before turning on course.	1500'
klahoma City, Wiley Post Post Arpt., Okla.	12	Acft shall proceed on rnwy heading until reaching 500' or until passing the arpt bndry before beginning a turn to the right.	lgt acft 800' AGL hvy acft 1200' AGL
	17	Acft shall proceed on rnwy heading until reaching 500' or until pasing the arpt bndry before beginning a turn to the right.	
	21	Acft shall proceed on rnwy heading until reaching 500' or until passing the arpt bndry before beginning a turn to the right.	
an Antonio, Tex., Stinson Arpt	9, 14, 22	Right hand tfc pattern. 800' AGL light or slow acft. 1500' AGL, heavy or fast acft.	
herman Mun., Texas	16	Left turn after takeoff.	800' AGL
	34	Right turn after takeoff.	
orrance Mun., Calif.	11L	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 45 degrees from the runway departure heading and continue climb.	
	11L	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 90 degrees to the departure runway heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the right of the cross wing leg course.	
	11R	All aircraft—Climb on departure rnwy heading to 1500'.	
	29R	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 45 degrees from the runway departure heading and continue climb.	
	29R	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 90 degrees to runway departure heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the left of the cross wind leg course.	
	29L	All aircraft—Upon reaching an altitude of of 500 feet MSL, make left turn from the departure runway heading to intercept an area approximately over the Pacific Coast Highway, then proceed in a westerly direction until reaching 1,500 feet MSL or the shoreline.	
ilkes-Barre Scranton, Avoca, Pa.	16, 22	Right hand tfc pattern.	
inona, Minn., Max Conrad Fld		Right tfc NW.	

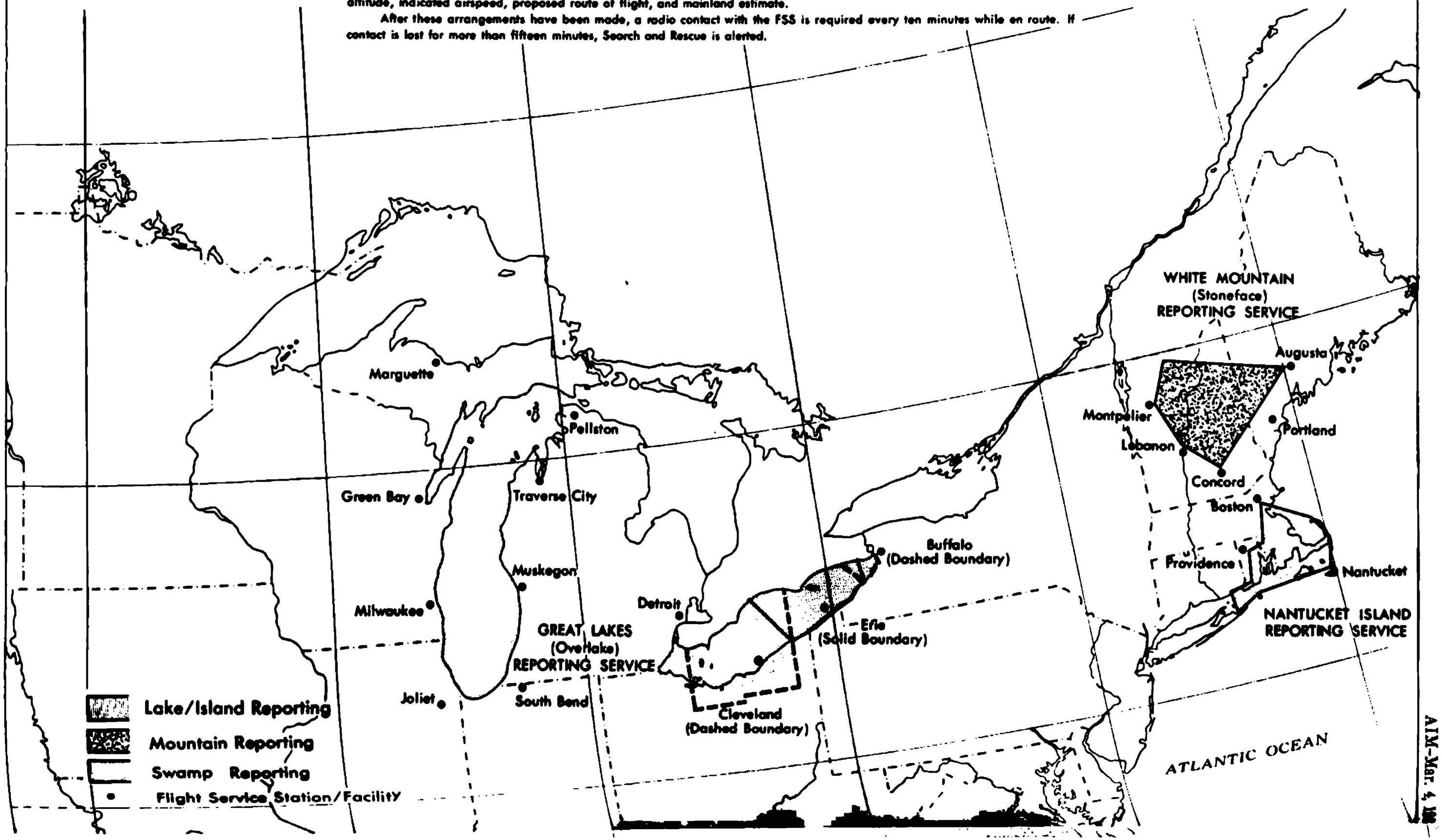
LAKE, ISLAND AND MOUNTAIN REPORTING SERVICE

Flight Service Station (FSS)

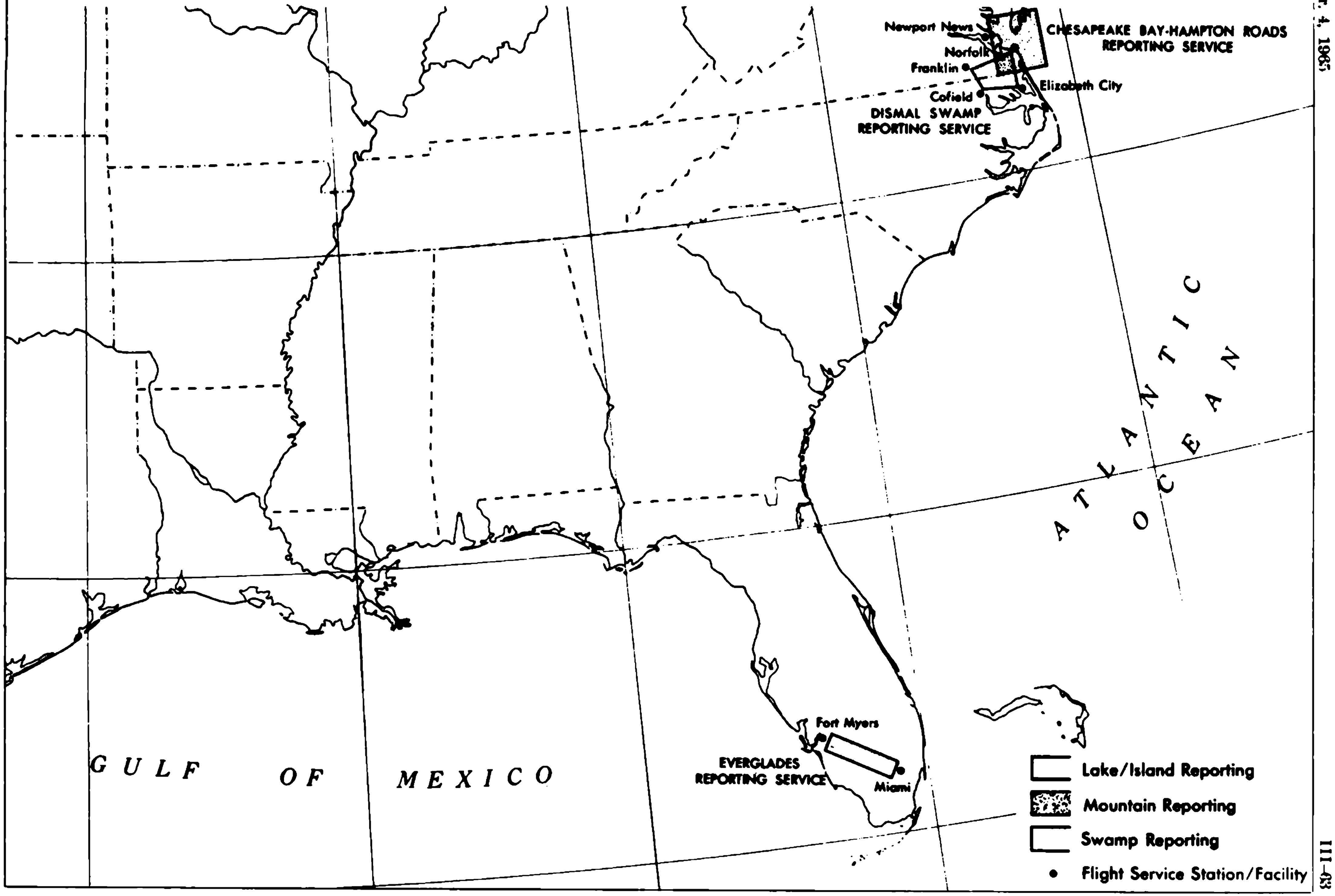
This service provides flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.

Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface", "Overlake", etc., are indicated on the following charts. To obtain this service, contact the FSS by telephone or radio giving present position, type aircraft, altitude, indicated airspeed, proposed route of flight, and mainland estimate.

After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.



LAKE, ISLAND AND MOUNTAIN REPORTING SERVICE
Flight Service Station (FSS)



109°
—43°

ROCKY MOUNTAIN REPORTING SERVICE

This service is available to aircraft operating VFR (with or without flight plan) between Denver and Grand Junction via Corona Pass or Monarch Pass. This service can not be offered on an area or random route basis due to the unreliability of communications caused by terrain extremes. The routes via Corona Pass and Monarch Pass have been flight checked and communications found reliable at the altitudes published on the chart.

"Rocky Mountain Reporting Service" shall be available to all VFR aircraft upon request, whether or not operating on a regular flight plan.

REQUIREMENTS

1. Aircraft must be equipped with functioning 2-way radio capable of receiving VOR and transmitting 122.1mc.
2. Pilot must fly prescribed route at an altitude no less than established MRA (Minimum Reception Altitude).
3. Pilot must arrange for accurate time of departure to be received by the FAA facility through which the service was requested.
4. Pilot must radio a position report every ten minutes as follows, whether eastbound or westbound:

CORONA ROUTE

To Denver Radio while operating between Denver and Corona Pass (vicinity of Moffat Tunnel, west of Tolland, Colorado).

To Eagle Radio (through Kremmling VOR) between Corona Pass and vicinity of Glenwood Springs.

To Grand Junction Radio between vicinity of Glenwood Springs and Grand Junction.

MONARCH ROUTE

To Denver Radio (through Denver or Kiowa VOR) between Denver and Lake George Intersection (Cheesman Reservoir). To Denver Radio (through Kiowa VOR only) between the Intersection and Elevenmile Reservoir, or west of Cripple Creek, Colorado.

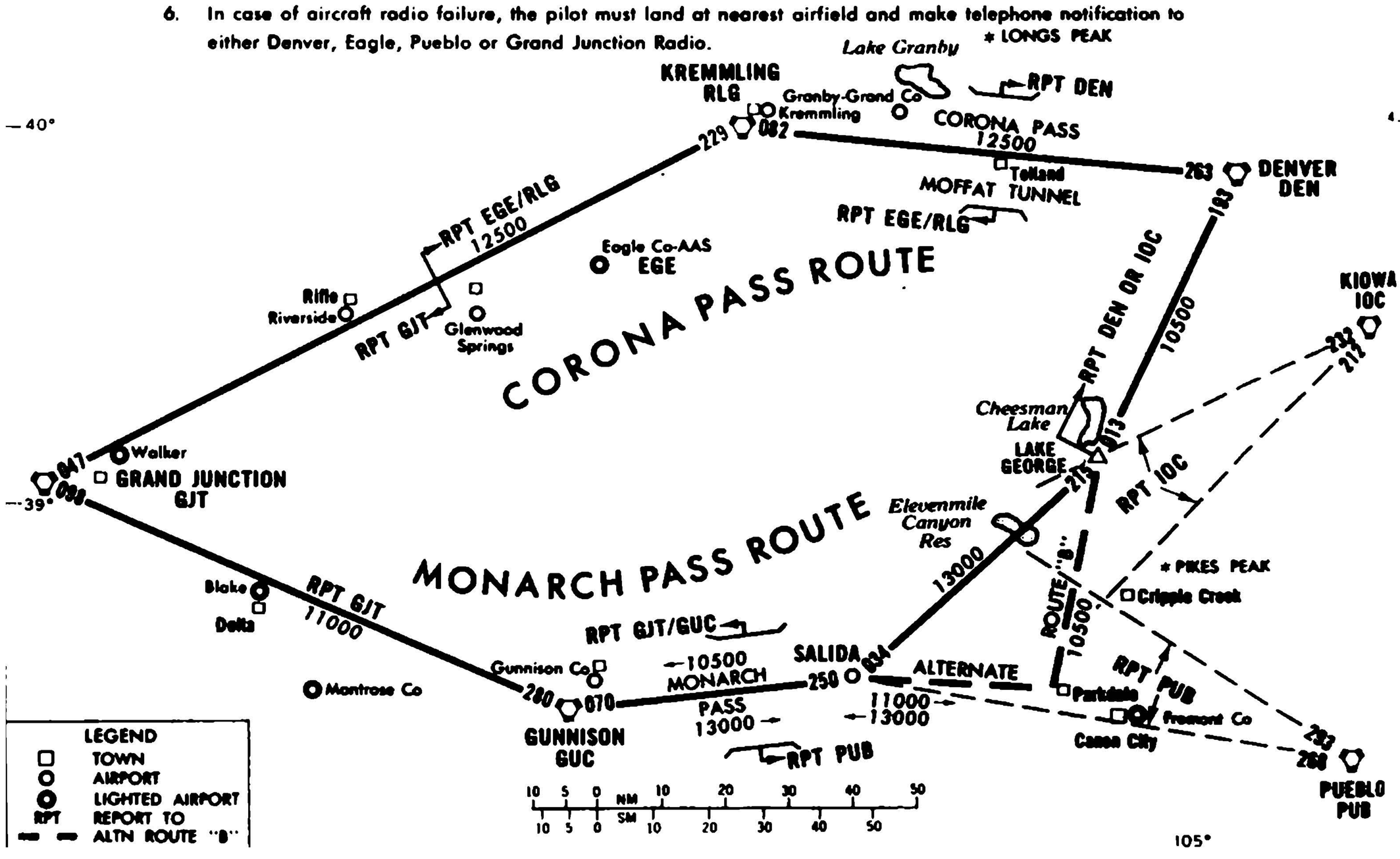
To Pueblo Radio between Elevenmile Reservoir or west of Cripple Creek and Salida, Colorado.

To Grand Junction Radio (through Gunnison VOR) between Salida and Grand Junction.

Pilots may file for all or any portion of either route, i.e. on a flight from Denver to Grand Junction, a pilot may request the service from Denver to Kremmling only.

(If contact with the aircraft is lost for more than 15 minutes, Search and Rescue will be alerted.)

5. The service may be terminated at any time upon request of the pilot.
6. In case of aircraft radio failure, the pilot must land at nearest airfield and make telephone notification to either Denver, Eagle, Pueblo or Grand Junction Radio.



SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

MILITARY CLIMB CORRIDORS

ALL FLIGHTS desiring to traverse these areas must obtain prior approval from the Appropriate Authority and maintain continuous listening watch on the appropriate frequency while traversing the corridor. The list of corridors, appropriate authority and frequencies follows:

Corridors	Appropriate Authority	Frequencies
Bangor (Dow AFB) Maine	Dow AFB Apch Ctl	126.2; 363.8; 122.5G
Charleston AFB/Mun., S.C.	Charleston Apch Ctl	119.3; 319.8; 122.5G
Columbus (Lockbourne AFB), Ohio	Columbus Apch Ctl	123.7; 122.5G; 360.6
Falmouth (Otis AFB), Mass.	Otis RAPCON	124.7; 118.2; 122.5G
Glasgow (Glasgow AFB), Mont.	Glasgow AFB Apch Ctl	126.2; 236.6; 122.5G; 363.8
Goldsboro (Seymour Johnson AFB), N.C.	Seymour Johnson Apch Ctl	119.7; 122.5G
Grand Forks (Grand Forks AFB), N.D.	Grand Forks AFB Apch Ctl	118.1; 363.8; 122.5G
Grandview (Richards-Gebaur AFB), Mo.	Olathe RAPCON	363.8; 124.7; 122.5G
Hampton Roads (Langley AFB), Va.	Norfolk Apch Ctl	350.3; 125.7; 122.5G
Houston (Ellington AFB), Texas	Houston Apch Ctl	118.1; 284.6; 122.5G
Limestone (Loring AFB), Me.	Loring AFB Apch Ctl	122.5G; 363.8
Madison (Truax Fld), Wisc.	Truax Tower	120.1; 350.3; 122.5G
Marquette Co. (K.I. Sawyer AFB), Mich.	Sawyer Apch Ctl	122.5G; 119.1; 259.3; 363.8
Merced (Castle AFB), Calif.	Castle AFB Apch Ctl	118.9; 122.5G; 379.4
Minot AFB, North Dakota	Minot AFB Apch Ctl	363.8; 118.5; 122.5G
Mt. Clemens (Selfridge AFB), Mich.	Selfridge AFB Apch Ctl	126.2; 363.8; 122.5G
New Orleans (NAS New Orleans), La.	New Orleans Center—5000' & above, IFR	126.0; 323.2
	New Orleans Apch Ctl—VFR	118.1; 122.7G; 248.7
Oscoda (Wurtsmith AFB), Mich.	Wurtsmith AFB Apch tl	126.2; 122.5G
Oxnard AFB, Calif.	Ventura Apch Ctl	124.7; 319.2; 122.5G
Rome (Griffiss AFB), New York	Griffiss Apch Ctl	118.5; 363.8; 122.5G
San Antonio (Kelly AFB), Tex.	San Antonio Apch Ctl	122.5G; 123.9; 126.5; 134.1; 307.0 353.5
San Rafael (Hamilton AFB), Calif.	Hamilton AFB Apch Ctl	122.5G; 126.2
Sault Ste. Marie (Kincheloe AFB), Mich.	Kincheloe Apch Ctl	118.3; 122.5G; 363.8
Victorville (George AFB), Calif.	Edwards Apch Ctl	124.4; 127.1; 137.65; 335.6; 122.5G
Westhampton Beach (Suffolk AFB), N.Y.	Suffolk Apch Ctl	126.2; 122.5G; 236.6
Wrightstown (McGuire AFB), N.J.	McGuire Apch Ctl	122.5G; 110.6T; 134.1; 126.2

T—Transmits
G—Guards

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from Headquarters USAF (AFOAPDA) via the Commanding Officer of the field concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

However, with minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

December 1964

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
Anchorage	FAA		×
Balboa	FAA	×	
Cold Bay	FAA	×	
Dallas	BNF	×	
Guam	FAA	×	
Honolulu	ARINC	×	×
Miami	ARINC	×	×
New York	ARINC	×	×
New Orleans	ARINC	×	×
Okinawa	ARINC	×	×
Pago Pago	FAA	×	
Point Barrow	WEN	×	
San Francisco	ARINC	×	×
Shemya	FAA	×	
San Juan	ARINC	×	×
Seattle	ARINC	×	×
Wake Island	FAA	×	

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 12, April 1964. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

•AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

Automatic Terminal Information Service (ATIS) is the continuous broadcast of recorded noncontrol information in selected high activity terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information.

ATIS is now available at high activity terminal airports listed at the end of this Notice. Information such as ceiling, visibility, wind, altimeter, instrument approach, and runways in use is continuously broadcast on the voice feature of a TVOR/VOR/VORTAC located on or near the airport, or on a discrete VHF tower frequency. Pilots of aircraft arriving or departing the terminal area can receive the continuous ATIS broadcasts at times when cockpit duties are least pressing and listen to as many repeats as desired.

Sample Broadcast:

"THIS IS WASHINGTON NATIONAL AIRPORT INFORMATION BRAVO. CEILING MEASURED TWO THOUSAND, OVERCAST, VISIBILITY SIX. SMOKE. WIND ONE SIX ZERO DEGREES AT FIVE. ALTIMETER TWO NINER NINER TWO. VOR RUNWAY ONE FIVE APPROACH IN USE

LANDING RUNWAY ONE EIGHT. DEPARTURES ON RUNWAY ONE FIVE. NOTAM, GEORGETOWN RADIO BEACON OUT OF SERVICE. INFORM WASHINGTON APPROACH OR GROUND CONTROL ON INITIAL CONTACT THAT YOU HAVE RECEIVED INFORMATION BRAVO."

Pilots hearing the ATIS broadcast should, on initial contact with the tower or approach control, repeat the specific phonetic alphabet code word (Alpha, Bravo, Charlie, etc.) appended to each ATIS message. This will indicate that the pilot has received the latest information and obviate the need for the controller to repeat the information.

Example: ". . . I HAVE RECEIVED INFORMATION BRAVO."

ATIS broadcasts will be updated when there is a significant change in information contained therein. Terminal controllers will issue pertinent information to pilots who do not acknowledge receipt of the ATIS message, or who acknowledge receipt by an alphabet code word which is not current.

Pilots are urged to cooperate in the ATIS program since it relieves frequency congestion on approach control, ground control and local control frequencies.

ATIS Locations

Airport Location	*Voice Facility*	*ATIS Frequency*	*Information Broadcast*	*Hours L.S.T.*
New York Kennedy	JFK VORTAC	115.9 mc	Departure	0000-2400
	DPK VORTAC	111.2 mc	Arrival	0000-2400
	COL VORTAC	108.2 mc	Arrival	0000-2400
Van Nuys	VOT	109.0 mc	Arrival/ Departure	0000-2400 0000-2400
Chicago O'Hare	Discrete VHF	124.2 mc	Arrival/	0000-2400
	ORD VORTAC	113.9 mc	Departure Arrival/	
San Francisco	SFO LVOR	111.2 mc	Departure	0000-2400
Atlanta	REX VOR	111.8 mc	Arrival/ Departure	0800-2000

March 1965

SPECIAL CIVIL AIR REGULATION NO. 456

Effective immediately the provisions applicable under Special Civil Air Regulation No. 456 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V-282, V-203, V-91, V-475, DPK. Those at FL 180 and above will be routed via St. Eustache V-91, PLB, J-75, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V-487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-75, PLB, V-91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V-203, ALB, V-91, V-475, DPK. Those at FL 180 and above will be routed via G-1 Maxville, V-104, MSS, J-37, ALB, POU, V-91, V-475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V-91, ALB, V-203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J-37, MSS, V-104, Maxville, G-1.

Flights from Toronto to Kennedy below FL 180 will be routed via V-308, V-252, BGM, V-270, V-34, V-475, DPK. Those at FL 180 and above will be routed via V-308, BUF, J-95, HUO, CMK, V-34, V-475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V-126, AVP, V-36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J-95, BUF, V-36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

December 1964

Exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations

The Department of the Air Force has been issued an exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations to conduct certain Radar Bomb Scoring (RBS) training missions at or above Flight Level 300 within 75 nautical miles of the sites listed below. A navigation aid will be listed to define the center of the complex if such an aid is so located. If a NAVAID is not located at the center, the center will be defined by bearing/distance from a High Altitude Navigation Aid.

The NIKE/RBS Complexes used are:

Providence 280°/35NM
Windsor VORTAC
Presque Isle 087°/20NM
Kennedy VORTAC
Boston VORTAC
Rapid City 110°/33NM
Dupree VORTAC 010°/114NM
Syracuse VOR 018°/48NM

PILOT-TO-FORECASTER WEATHER SERVICE

Pilot-to-Forecaster Service (PTFS) in the general area of the Washington ARTCC is provided for the purpose of the direct pilot/forecaster exchange of meteorological information when **weather conditions are critical, changing rapidly or when the direct advice of a professional aviation meteorologist is considered necessary.** Routine requests for weather information or pilot reports should be directed to the nearest FAA Flight Service Station (FSS).

PTFS is available on the radio frequency of 122.6 megacycles (mc) within communications range of the following FAA FSS locations:

Washington, D.C.
Elkins, West Virginia
Richmond, Virginia
Roanoke, Virginia
Front Royal, Virginia
Rocky Mount, North Carolina

Air/ground calls should be made to "Washington Forecaster" for direct communications with a U.S. Weather Bureau Meteorologist who is currently familiar with weather in the area. This service is available from 1200Z to 0200Z (7:00 a.m. to 9:00 p.m., EST). Emergency weather service during other periods may be made available by contacting the flight service specialist (when VFR) or the Washington ARTCC (when IFR) and requesting that "Washington Forecaster" communicate on 122.6 mcs.

December 1964

•MEA, MCA, MOCA, MRA, MAA

Efctv immediately: (1) MOCA V–84, 880 BDF to Malta INT, Ill. 2400 ft vice 2200 ft and MOCA V–172, 846, 854, PLL to Malta INT, Ill. 2400 ft vice 2000 ft. (2) The MEA for V–19, V–138N, CYS to Morton INT, Wyo. is chdg to 9000 ft. (3) Following flight procedures are authorized: V–17, Nocona INT, Tex. to DUC MOCA raised to 2400 ft; V–77E, Temple INT, Okla. to DUC MOCA raised to 2400 ft. (4) V–283, RNO to Coarsegold INT, Calif. MEA raised to 16000 ft vice 15000 ft; COP 65 NM from RNO; MCA 10000 ft. RNO, S-bound.

Efctv 1/26/65 following flight procedures authorized: V–161, BRD to HIB, MEA 4500 ft, MOCA 2800 ft; V–462, BJI to DLH MEA 6300 ft, MOCA 3000 ft with changeover point 40 NM from BJI.

Efctv 1/29/65 following flight procedures authorized: J–501, YAK to HBK to ANC all MEAs 16000 ft, MAAs 45000 ft. COP 45 NM from ANC.

Efctv 2/6/65, MEA for V–2N from MSP to River Falls INT, Wis. is 2500 ft. No MOCA authorized.

Efctv 3/4/65 Zenith, W. Va. VHF/DME Fix is corrected to 017 mag rad PSK and 255 mag rad CLD and 24 NM from PSK.

Efctv 3/4/65, following flight procedures authorized: V–219, SUX to MKT, MEA 6000 ft, MOCA 2600 ft; MKT to FGT, MEA 2900 ft, MOCA 2500 ft.

March 1965

VFR PRACTICE INSTRUMENT APPROACH PROCEDURES

VFR practice instrument approach procedures at the following locations are published for and used by USAF Air Training Command pilots:

Cotulla, Tex.	Radio Beacon	JAL–907–ADF
Draughon-Miller Arpt. Temple, Tex	VOR	JAL–809–VOR
Cotulla, Tex.	VOR	JAL–907–VOR
Howard County Arpt. Big Spring, Tex.	VOR	JAL–5019–VOR
•Killeen, Tex. Hood AAF	VOR	JAL–5031–VOR
Rock Springs, Tex.	VOR	JAL–111–VOR–3
Sequin AF Aux., Tex.	Beacon	AL–5223–ADF
Vance AFB, Woodring, Okla.	VOR	JAL–135–VOR–3

These approach charts are published by the USAF Aeronautical Chart and Information Center in a loose-leaf format. Civil aviation requests for these charts should be submitted to the Director, Coast and Geodetic Survey, 14th and Constitution Avenue, N.W., Attention: Distribution Division Washington, D.C. 20230.

December 1964

SPECIAL CIVIL AIR REGULATION NO. SR 454A

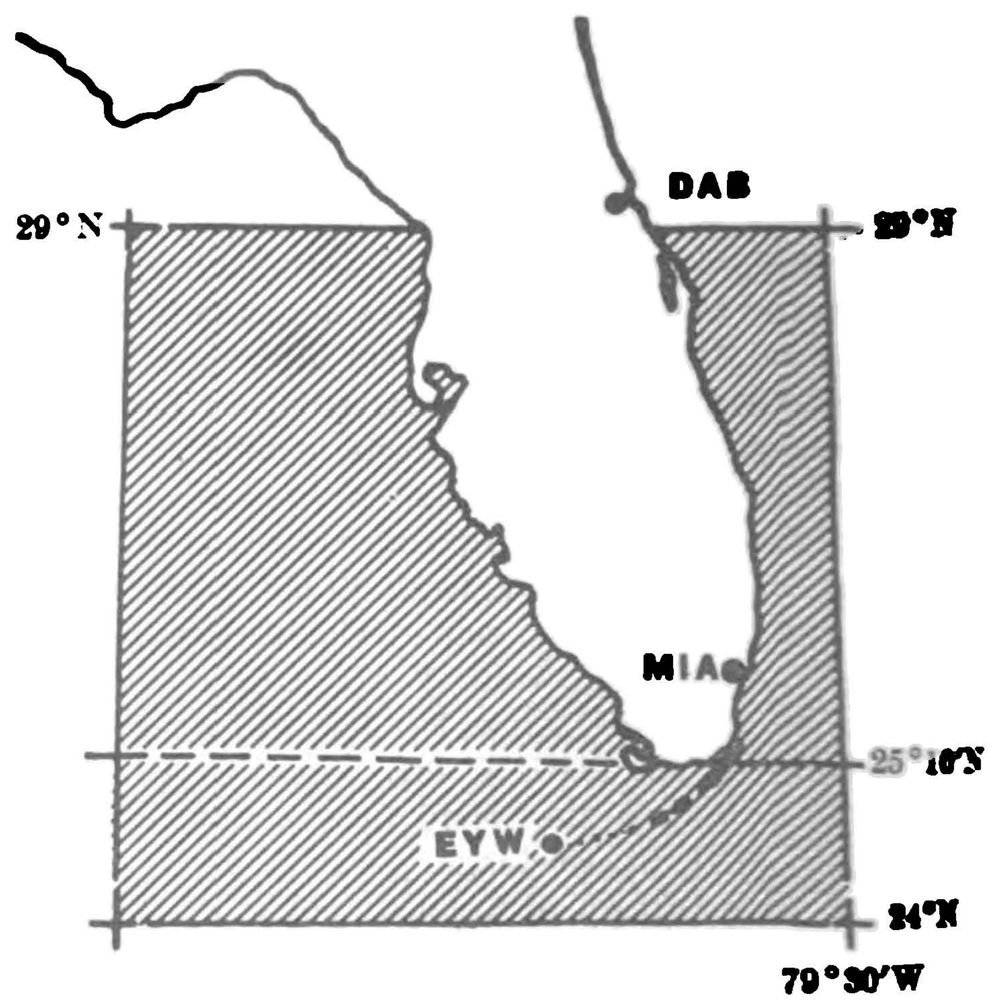
The following special rules of SR 454A are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

(a) It is operated under a flight plan that has been approved by an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SR 454A is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



lew Flight Assistance Service Facility Tests

e FAA is testing a modernized FSS configuration ield test of two new types of low cost facilities for t assistance service at local airports. The tests will nd through June 30, 1965.

ght Service Facility (FSF): An FSF is operated by FAA t service specialists during the busy hours of each It is equipped with transmit/receive on 121.7 mcs. airport advisory service and 121.5 mcs. for emery communications; weather observing instruments; her teletypewriters; and communications into the system. FSFs provide airport advisory service request); aviation weather observations; pilot fing; and flight plan handling. Toll-free Communions with the control FSS will be available 24-hours . During the hours the FSF is operating, pilots ing or departing the FSF airport may contact the for airport advisory service when within 15 nautiniles. Call and listen on 121.7 mcs. Use the name e FSF airport followed by the word "radio": ble Radio this is N1234V over."

e location of test FSF with control FSS in parenis and local hours of FSF operation are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan, Kansas (Salina FSS) 0600–1800.
Crescent Beach Airport, Myrtle Beach, S. C. (Florence FSS) 0600–1800.

rport Information Desk (AID): An AID is an unmanned ity designed for pilot self-service briefing, flight ning and filing of flight plans. A desk and flight ning material will be available at all AID locations, ly during daylight hours. In addition, some AIDs have weather instruments and weather teletypeers. Toll-free communications with the control FSS be available 24 hours daily.

e AID test sites with control FSS shown in parenis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky (S/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Montpelier, Vermont)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

Pilots are invited to use and evaluate these services. Comments and suggestions should be sent to:

Director, Air Traffic Service
Federal Aviation Agency
800 Independence Avenue, S.W.
Washington, D.C. 20553

February 1965

•PART-TIME CONTROL ZONES

(Times are local)

CALIFORNIA

Riverside Mun Arpt: 0500–2130. Contact March Apch Ctl prior conducting IFR flight operns in the Riverside control zone.

Visalia Mun Arpt: 0700–2100. Contact Fresno Apch Ctl prior to conducting IFR flight operns in the control zone.

KANSAS

Liberal Mun Arpt: 0700–2000 daily.

MICHIGAN

Alpena: 0800–2000 daily.
Benton Harbor: 0730–2230.
Menominee: 0700–2030 daily.

MINNESOTA

Bemidji: 0730–2000.
Brainard: 0800–1900.
St. Paul Downtown(Holman Fld): 0800–2200.
Worthington: 0700–1830.

NEBRASKA

Alliance: Efctv Apr 1, 1965. 0700–2100 Sun–Fri; 0700–1800 Sat.
Hastings: 0600–2100 daily.
Kearney: 0700–2200 daily.
Norfolk: 0730–2000 daily.

TEXAS

Borger: 1230–2230 daily; Sats 0830–1630.
Del Rio: Efctv 0001E Apr 29, 1965. 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun.
Killeen: Efctv 0001 E Apr 1, 1965. 0700–2230, Mon thru Fri and 0700–1600 Sat, Sun, and federal legal holidays.

WISCONSIN

Camp Douglas: 0745–1630 daily.
Janesville: Sun thru Fri 0700–2330 and Sat from 0700–2000.

Washington DISTRICT OF COLUMBIA

TEST EVALUATION OF VFR ARRIVAL AND DEPARTURE RADAR TRAFFIC INFORMATION SERVICE

VFR Radar Traffic Information Area

GENERAL PROCEDURES: The Washington VFR Radar Traffic Information Area is that airspace which extends upwards to an altitude of four thousand feet, MSL inclusive, and is encompassed by a line connecting the following points: Rockville, Laurel, Shadyside, Hughesvill, Indian Head, Centreville, and Herndon. (See chart on facing page.)

Pilots of aircraft without radio, as well as those unable to contact VFR Arrival or Departure Information Service on assigned frequencies, are urged to conform to routing via designated VFR arrival and departure routes.

Pilots operating VFR flights destined for Washington National Airport should follow the designated arrival and departure routes listed herein in order to maintain a safe, orderly flow of air traffic in the Washington area.

All aircraft arriving or departing Washington National Airport should proceed with caution when in the vicinity of Andrews AFB.

If destination is other than Washington National Airport, so advise.

THE RADAR SERVICE DESCRIBED HEREIN IS NOT INTENDED TO RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. IT IS PROVIDED TO AID HIM IN HIS VISUAL SURVEILLANCE BY CALLING TO HIS ATTENTION PERTINENT TRAFFIC. PILOTS ARE REMINDED THAT THE SURVEILLANCE RADAR UTILIZED BY THE CONTROLLER DOES NOT PROVIDE ALTITUDE INFORMATION.

The following procedures should be adhered to by pilots of VFR flights desiring this service and having proper radio equipment when arriving at and departing from Washington National Airport.

ARRIVAL PROCEDURES: Arriving VFR flights desiring traffic information should contact Washington Traffic Information Service on 119.3 mcs/338.2 mcs UHF when approaching from Laurel, Shadyside RBN, and Hughesville; or on 120.1 mcs/306.3 mcs UHF when approaching from Indian Head, Centreville, Herndon, and Rockville. When practicable, pilots should follow the appropriate VFR arrival route as indicated (See Chart) and maintain listening watch on traffic information frequency until further advised. Landing information will be furnished to aircraft destined for Washington, and radar traffic information will be provided until the pilot is advisesd to contact the tower.

DEPARTURE PROCEDURES: VFR flights departing th Washington Airport desiring traffic information sho request the service on initial contact to Ground Cont The pilot should also advise his proposed direction flight; e.g., "VFR Information Service, Laurel." I lowing take-off, the tower will advise the pilot whe contact Washington Information Service and the quency to be used. Flights proceeding to Laurel, Sha side, and Hughesville will use 119.3 mcs/338.2 m UHF. Flights proceeding to Indian Head, Centrev Herndon, and Rockville will use 120.1 mcs/306.3 mcs U Pilots should depart the Washington Terminal area via designated VFR departure route most nearly aligned t their destination. They should also maintain listen watch on the appropriate information service freque until cleared to leave the frequency or beyond the per eter fix.

Washington National Airport

Arrival Routes

Northeast—Report Laurel. Proceed well right of Wa ington-Baltimore Parkway to Beltsville, then north Washington to Chain Bridge.

East—Report Shadyside RBN. Proceed via Bra wine to Fort Washington. Caution—Military con tional and jet traffic vicinity of Andrews AFB Con Zone.

Southeast—Report Hughesville. Proceed via Wald to Fort Washington. Caution—Andrews jet penetrat inbound on Andrews VOR 187 degree radial descend to cross Andrews LFR at 1500 feet MSL.

Southwest—Report Indian Head. Proceed on right s of Potomac River until past Mount Vernon.

West—Report Centreville. Proceed well right of R Route 29 highway to Falls Church.

Northwest—Report Herndon. Proceed well right of P tomac River to Falls Church.

North—Report Rockville. Proceed well left of Poto River to Chain Bridge.

Departure Routes

Northeast—Proceed via west bank of Anacostia Ri to Riverdale and well right of Washington-Baltim Parkway until past Beltsville Airport.

East—Proceed via Fort Washington and Brandyw to Shadyside.

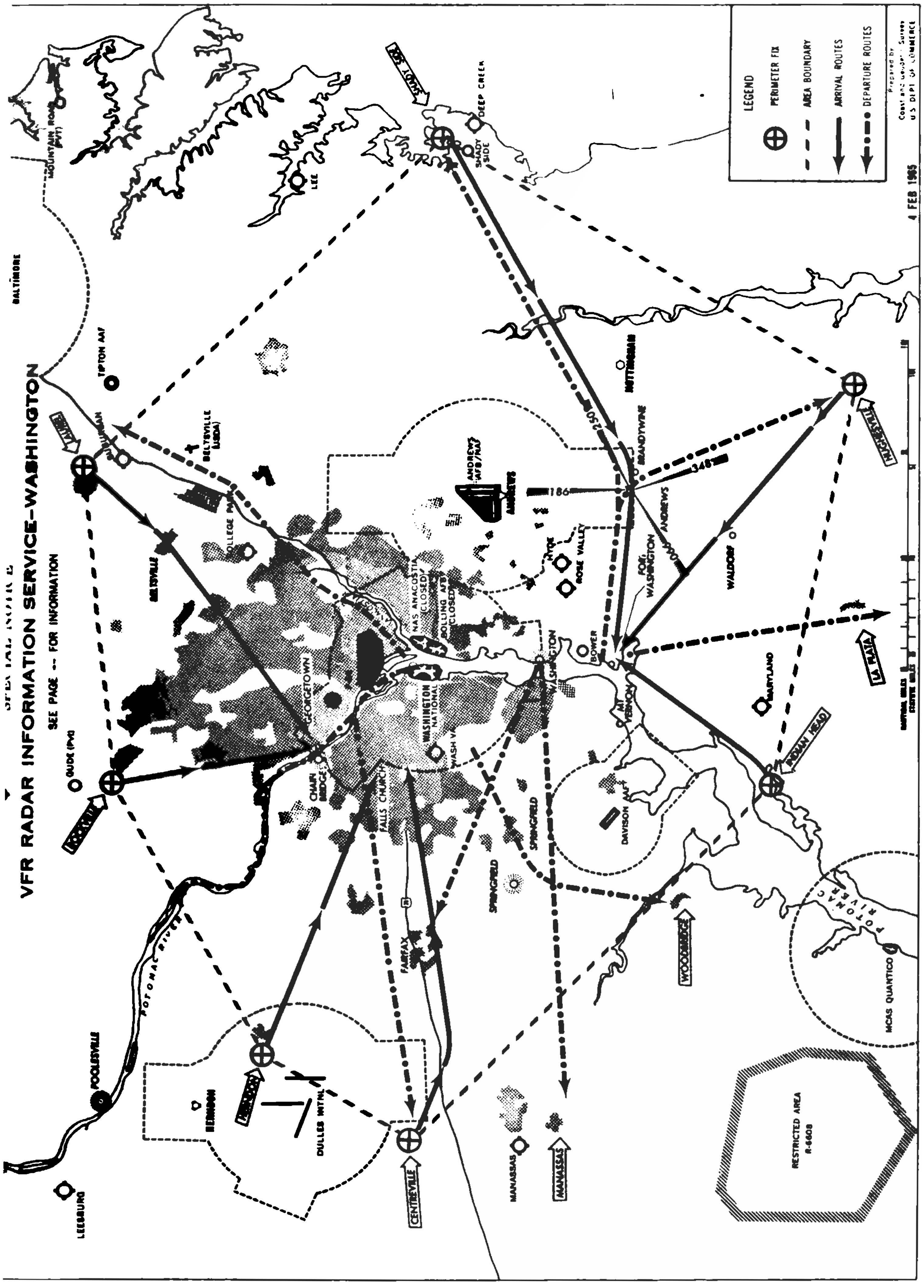
Southeast—Proceed via Fort Washington and LaPlata

Southwest—Proceed well right of Potomac River u past Woodbridge.

West—North departures proceed well right of R Route 29 highway until past Centreville. South dep tures proceed via Washington LFR to Manassas.

Northwest—North departures proceed via Potomac Riv until leaving the area. South departures proceed v Washington LFR to Fairfax.

SPECIAL NOTICES—AREA
DISTRICT OF COLUMBIA


VFR RADAR INFORMATION SERVICE-WASHINGTON
SEE PAGE -- FOR INFORMATION
LEGEND
PERIMETER FIX
AREA BOUNDARY
ARRIVAL ROUTES
DEPARTURE ROUTES
4 FEB 1965
Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE
BALTIMORE
MOUNTAIN ROAD (PA)
LEE
DEEP CREEK
SHADY SIDE
ANNAPOLIS
ANNE ARUNDEL
ANDREWS AFB/NAF
BELTSVILLE (USDA)
COLLEGE PARK
NEW CARROLLTON
RIVERDALE
HYATTSVILLE
BLADENSBURG
NAS ANACOSTIA (CLOSED)
BOLLING AFB (CLOSED)
GEORGETOWN
WASHINGTON NATIONAL
WASH VA
CHAIN BRIDGE
FALLS CHURCH
SPRINGFIELD
ROSE VALLEY
BOWER
MT VERNON
FOR. WASHINGTON
ANDREWS
BRANDYWINE
WALDORF
MARYLAND
LA PLATA
NEW CASTLE
NEWCASTLE
NORTHBRIDGE
NORTHBRIDGE
NORTHBRIDG

Atlanta GEORGIA

TERMINAL RADAR SERVICE AREA

(An Evaluation of Terminal Area Positive Separation)

The Air Traffic Service, FAA, has developed a program to evaluate a concept of providing a positive separation service to aircraft operating within a terminal area. The airspace area where this evaluation will be conducted will be known as a Terminal Radar Service Area (TRSA). During the evaluation period, a true positive separation environment will not be guaranteed.

This program is in consonance with the report of the Task Force on air traffic control (Project Beacon) and the subsequent Air Traffic Service analysis of the report.

A program for positive separation of aircraft operating in terminal airspace, regardless of weather conditions, must be able to satisfy the many varied requirements of both the VFR and IFR users without imposing excessive restrictions to their operations, yet it must be within the capabilities of the air traffic control system.

In consideration of these two major stipulations, the program will initially be implemented on a voluntary basis, whereby pilot participation will be encouraged rather than required. In this respect, it is obvious that considerable cooperation and effort must be expended jointly by the Federal Aviation Agency (FAA) and the airspace users, if a realistic evaluation is to be made.

Generally, the objective of this evaluation is to determine the following:

1. Airborne equipment and pilotage requirements.
2. Operating personnel, equipment, procedural and airspace requirements.
3. Impact on the over-all terminal operation.
4. Capability of the air traffic control system to provide positive separation to all aircraft operating within a terminal area.
5. Need for regulatory action.

Following a thorough and complete analysis of this evaluation, FAA in cooperation with the users, will determine the necessary requirements for implementation of a positive separation system in high activity terminal areas, wherein all aircraft would be provided separation by the ATC system, irrespective of weather conditions.

The size and shape of the TRSA will vary depending upon operational requirements. This area may be shown as a circular radius or other configuration and should be no larger than absolutely necessary to adequately perform the control functions.

Implementation

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia, as the first of selected locations to thoroughly evaluate the program.

In addition to the following details and procedures, information has been provided on appropriate charts, other aeronautical flight information publications a through representative user organizations.

The Atlanta Terminal Radar Service Area is that airspace extending upward from the surface to and including 6,000 feet MSL within the Atlanta Airport Control Zone; and, in addition, that airspace extending from 2,000 feet MSL to and including 6,000 feet MSL within a 15 statute mile radius of the Atlanta Airport, excluding Dobbins AFB Control Zone and the airspace within a 1½ mile radius of the Edwards Skyport and the Gunn Airport; EXCEPT that the base of the airspace area within the Fulton County Airport control zone is 2,500 feet MSL.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atla TRSA shall be operated in accordance with curr IFR procedures.
2. **VFR Flights**

   a. Airports within the Atlanta TRSA:

      (1) Arriving aircraft will be expected to cont Atlanta Terminal Control on specified f quencies and in relation to geographical fi listed in d. below.

      (2) Departing aircraft will be advised by the to when to contact departure or terminal c trol and the frequency to be used.

   b. Airports underlying the Atlanta TRSA:

      (1) Unless flight will be conducted below the fl of the TRSA, arriving aircraft will be pected to contact Atlanta Terminal Cont on specified frequencies and in relation geographical fixes listed in d. below.

      (2) Departing aircraft will be expected to cont Atlanta Terminal Control on the frequen specified in d. below as soon as possible af becoming airborne if it is desired that fli be conducted within the TRSA.

   c. Transiting Aircraft—Aircraft desiring to trav the TRSA will be expected to contact Atla Terminal Control on specified frequencies and relation to geographical fixes listed in d. below.

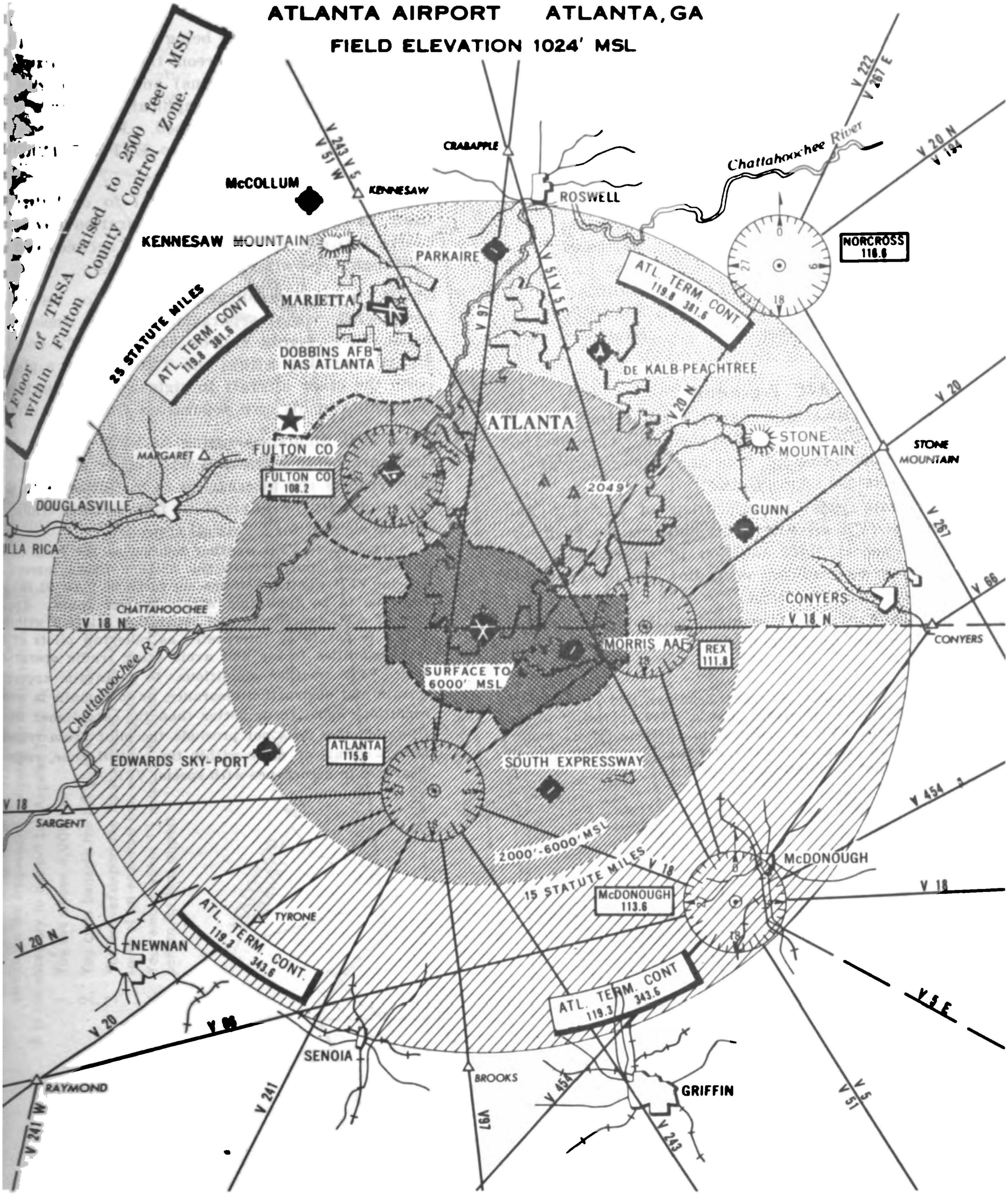
   d. Frequencies and Fixes—En route aircraft shou establish communications with Atlanta Termi Control approximately 25 miles from Atlanta A port. Aircraft entering the TRSA north of A way V-18N should use 119.8 or 381.6 MC; Aircra entering the TRSA south of Airway V-18N shou use 119.3 or 343.6 MC. Aircraft not equipped f two-way communications on these frequenc should transmit on 122.7 MC and listen on t appropriate frequency specified above.

      In addition to published radio fixes and oth prominent geographical fixes, the following fi

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024' MSL



LEGEND

TERMINAL RADAR SERVICE AREA — 2000'-6000' — SURFACE TO 6000'

CONTACT OR CALL-UP AREAS — North of V 18 N; South of V 18 N

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

GEORGIA

graphical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	"	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conveyors	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

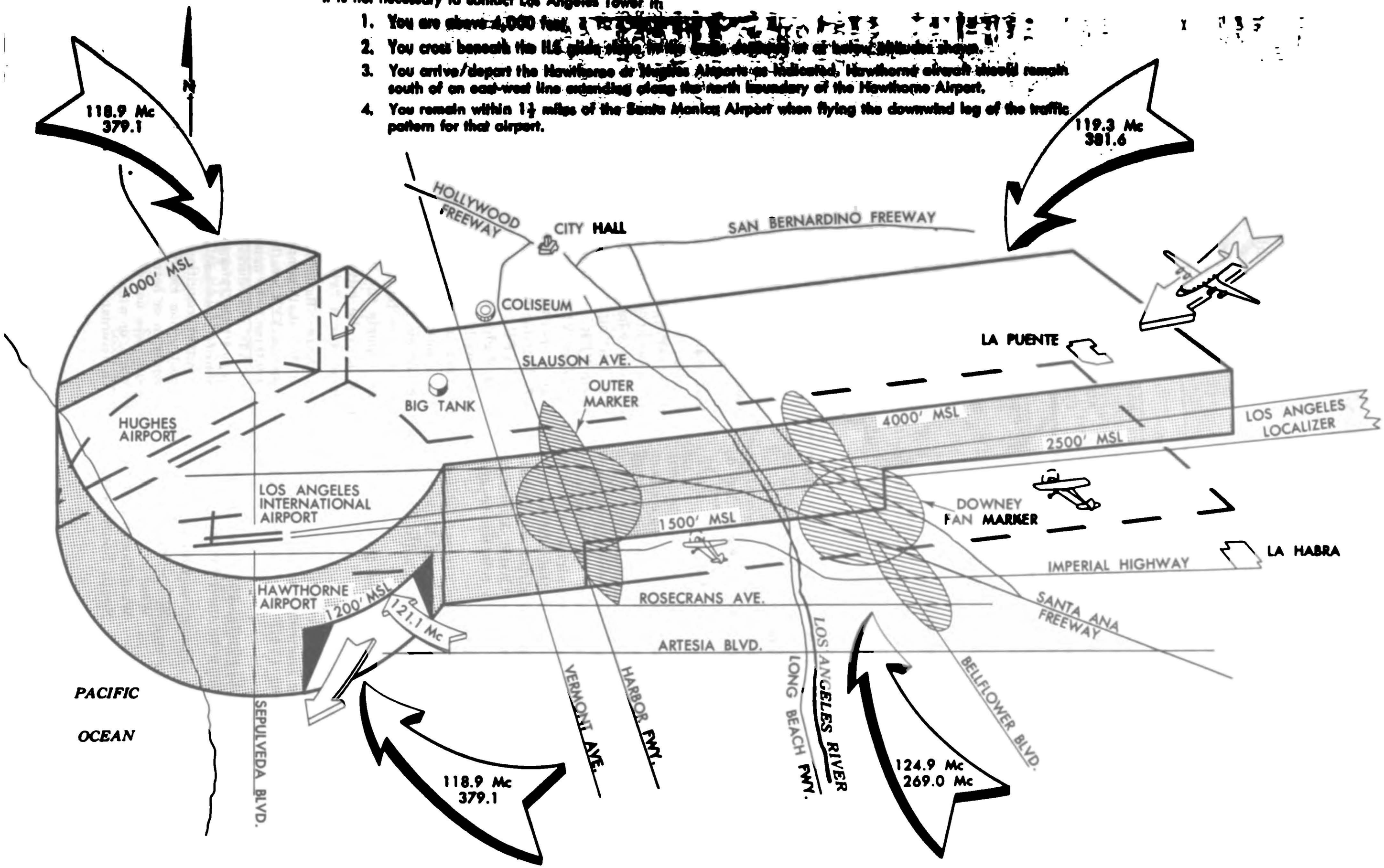
4. Traffic information on observed but unidentified rad targets will be provided on a workload permitti basis.
5. When VFR aircraft are being held within the TR and control is based thereon, the ATC clearance w specify the distance (radius) and, if appropriate, t direction from the geographical fix within whi holding is to be accomplished. In such cases, t pilot will be advised when to EXPECT FURTHI CLEARANCE.
6. During weather conditions equal to or better th basic VFR, 500 feet vertical separation may be e ployed between VFR flights and/or between VFR a IFR flights operating within the TRSA.
7. During weather conditions equal to or better th basic VFR, visual separation may be employed tween VFR flights and/or between VFR and I flights operating within the TRSA when a pilot ports the other aircraft in sight and advises that can maintain his own separation from such aircr
8. When IFR flights, operating in VFR weather con tions, are being sequenced with other traffic and pilot reports the aircraft he is to follow is in sig the pilot may be advised to follow such traffic a may be cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in F 91.105 shall apply within the Atlanta TRSA, except special VFR weather minima set forth in FAR 91.107 sh continue to be applicable within control zones. Appli tion of ATC procedures and separation minima within TRSA is not to be interpreted as relieving pilots of th responsibilities to see and avoid other traffic operating basic VFR weather conditions, to maintain appropr terrain and obstruction clearance, or to remain in weat conditions equal to or better than the established mini However, this does not preclude the pilot from reques IFR handling, or while within the control zone, reques clearance in accordance with special VFR.

...rior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You cross beneath the ILS glide slope in the [illegible] or at higher altitudes shown.
3. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
4. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.



*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Merced CALIFORNIA

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West–Northwest
Crows Landing (NAS)	West
City of Gustine	West–Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environme and control will be predicated thereon. This does n preclude application of nonradar separation as requir or deemed appropriate.

2. To facilitate radar identification of arriving a transiting VFR aircraft, ATC may request such aircra to report their position in relation to fixes (prominen geographical or radio) within or outside the perimeter the TRSA.

3. Radar headings and, if required, altitude assig ments may be given to VFR flights operating within t TRSA.

NOTE.—Assignment of radar headings and/or altitu are based on the provision that a pilot operating in acc ance with VFR is expected to advise ATC if complia with an assigned route, radar heading or altitude will ca the pilot to violate such rules.

4. Traffic information on observed but unidentifi radar targets will be provided on a workload permitti basis.

5. When VFR aircraft are being held within the TR and control is based thereon, the ATC clearance w specify the distance (radius) and, if appropriate, t direction from the geographical fix within which holdi is to be accomplished. In such cases, the pilot will advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better th basic VFR, 500 feet vertical separation may be employ between VFR flights and/or between VFR and IF flights operating within the TRSA.

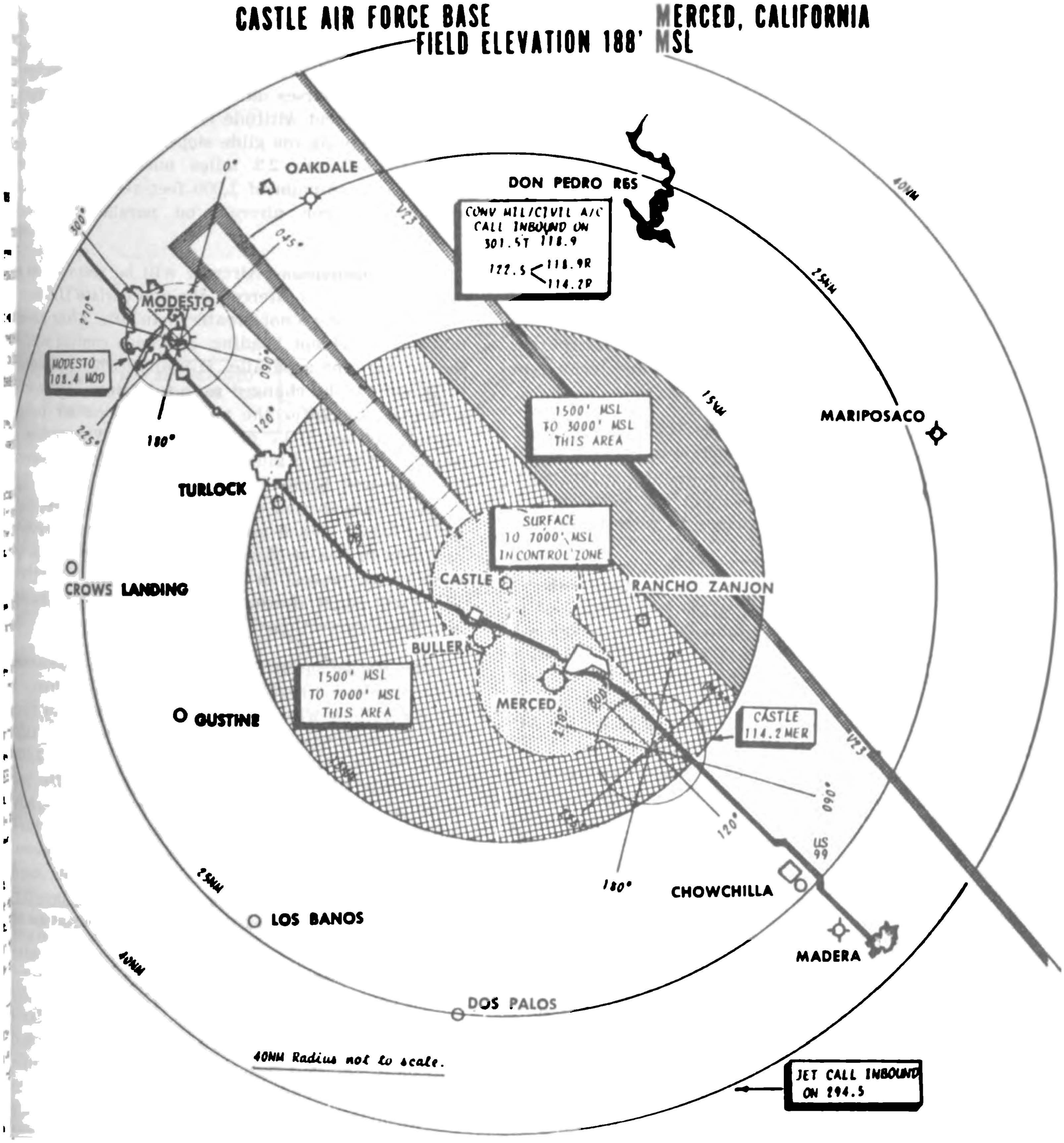
7. During weather conditions equal to or better th basic VFR, visual separation may be employed betwe VFR flights and/or between VFR and IFR flights op ating within the TRSA when a pilot reports the oth aircraft in sight and advises that he can maintain h own separation from such aircraft.

8. When IFR flights, operating in VFR weather co ditions, are being sequenced with other traffic and t pilot reports the aircraft he is to follow is in sight, t pilot may be advised to follow such traffic and may cleared for a "visual approach."

NOTE.—Basic VFR weather minima as set forth in FA 91.105 shall comply within the Castle TRSA, except th special VFR weather minima set forth in FAR 91.107 sh continue to be applicable within control zones. Applicati of ATC procedures and separation minima within the TRS is not to be interpreted as relieving pilots of their respon bilities to see and avoid other traffic operating in basic VF weather conditions, to maintain appropriate terrain a obstruction clearance, or to remain in weather conditio equal to or better than the established minima. However this does not preclude the pilot from requesting IFR ha dling, or while within the control zone, requesting clearan in accordance with special VFR.

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA
FIELD ELEVATION 188' MSL



40NM Radius not to scale.

This chart not to be used for navigational purposes.

TERMINAL RADAR SERVICE AREA

SURFACE TO 7000' MSL

1500' TO 3000' MSL

1500' TO 7000' MSL

CONTACT OR CALL-UP AREAS

CONV AIRCRAFT 25NM

JET AIRCRAFT 40NM

Chicago ILLINOIS

PARALLEL ILS APPROACHES—CHICAGO O'HARE INTERNATIONAL AIRPORT

Effective April 11, 1964 a revised Parallel ILS 14R&L approach procedure Amendment 1 was effective for Chicago O'Hare International Airport. ILS, radar, communications, ATC procedures and flight procedures are employed as integral parts of a total system. Under the system, Chicago Approach Control may clear aircraft to conduct Parallel ILS Approaches to Runways 14L and 14R when wind conditions permit straight-in landings and when all components of the system—except airborne or ground glide slope equipment—are operating normally. Aircraft are radar vectored to the final approach course (localizer) of either runway and the pilot executes an ILS approach. The separation between localizer courses (6,510 feet) imposes certain requirements and techniques peculiar to parallel approaches.

Requirements: To conduct a Parallel ILS Approach, aircraft must be equipped with a functioning 75 mc marker (or ADF) and localizer receivers, and have the capability to simultaneously monitor both the assigned control frequency and the appropriate localizer voice frequency when advised by ATC.

ATC Concept and Procedures: Arriving IFR aircraft en route to O'Hare Airport will be cleared by Chicago Center to one of four outer fixes (Northbrook, Niles, Lakewood, or Warren) established in the O'Hare Terminal Area and changed over to Chicago Approach Control for further clearance. On initial contact, Chicago Approach Control will advise the pilot that PARALLEL ILS APPROACHES ARE IN PROGRESS. Upon receipt of this information, **pilots who do not have required equipment** or do not wish to conduct a Parallel ILS approach, or require a specific runway, or require a radar fix in lieu of Meadow Intersection for 14L, must advise Chicago Approach Control prior to departing the outer fix. This will enable the controller to plan and provide for individual handling.

Chicago Approach Control will clear aircraft to depart the outer fix on a specified heading and at a specified altitude FOR RADAR VECTOR TO RUNWAY 14 (RIGHT/LEFT) ILS FINAL APPROACH COURSE and will specify the appropriate localizer frequency (109.7 or 110.1). After departing the outer fix, aircraft will be descended to the appropriate ILS Intercept Altitude (2,200 or 3,200 feet m.s.l.) and provided a period of level flight prior to the ILS intercept in which the pilot may dissipate any excess speed accumulated during the descent.

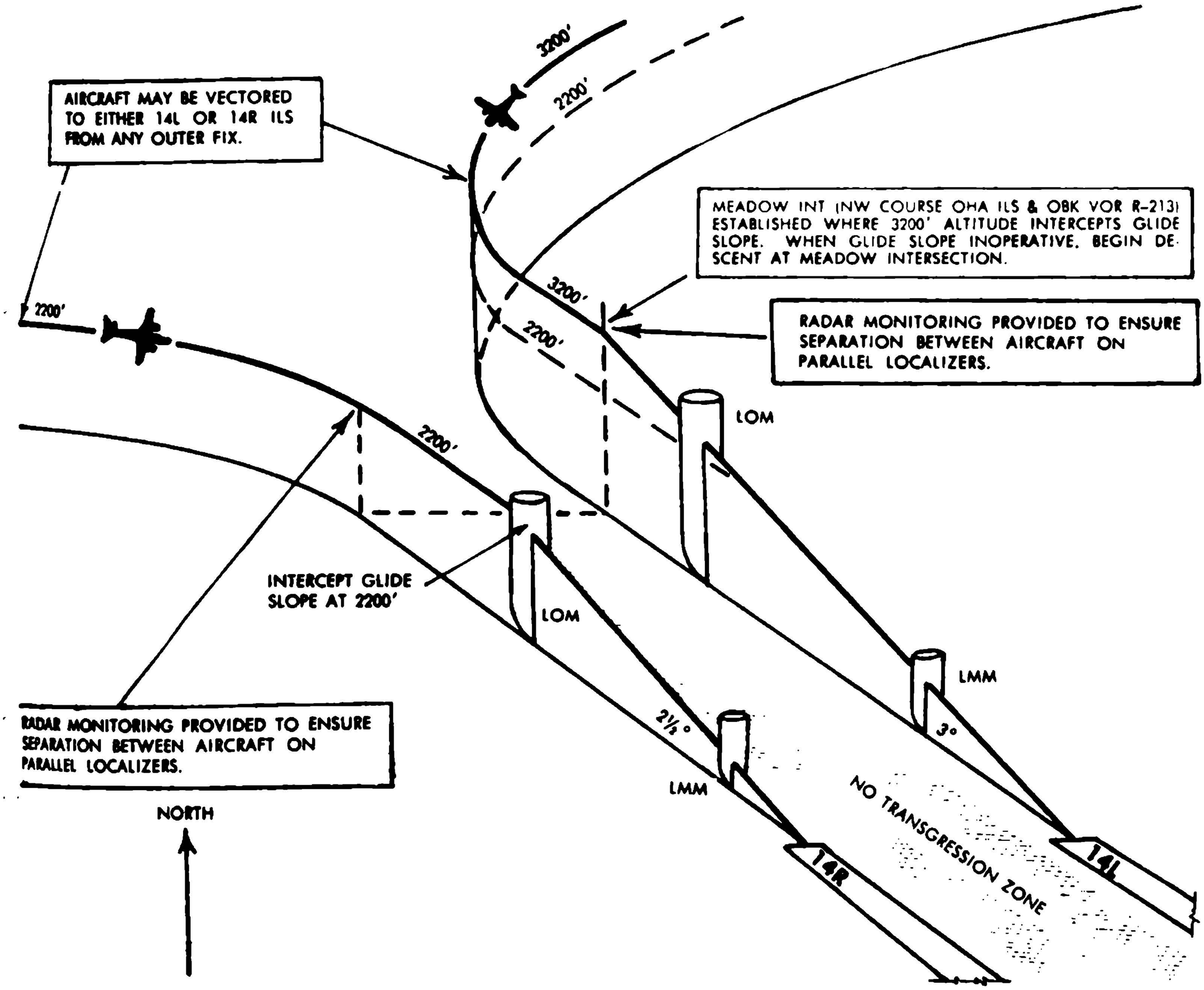
ATC Separation: Radar separation is provided between aircraft being vectored to, and while on, the same localizer course throughout the entire approach. Aircraft being vectored to Runway 14R will intercept that localizer course at 2,200 feet m.s.l. Aircraft being vectored to 14L will intercept that localizer course at 3,200 feet m.s.l., or higher. Since aircraft may be vectored to either l localizer course from any of the four outer fixes, a m mum of 1,000 feet vertical or 3 miles radar separa will be provided between the aircraft being vector opposite ILS courses during the turn-on. The appro ate ILS Intercept Altitude is maintained by the airc until intercepting the glide slope. After the turn-on until aircraft are 2.3 miles northwest of the o markers, a minimum of 1,000 feet vertical separa provided between aircraft on parallel ILS loca courses.

Localizer Interception: Aircraft will be vectored so a permit the pilot to intercept the appropriate ILS loca course at an angle not greater than 20°. After ass this final intercept heading, approach control will the aircraft for a parallel ILS approach. Subsequ the pilot will be changed over to O'Hare Tower and structed to monitor the appropriate localizer voice quency (either 109.7 or 110.1 mc). When glide s receiver or ground glide slope transmitter is inopera the pilot will begin descent from 3,200 feet for 14L Meadow Intersection or descend from 2,200 feet for at the LOM. When glide slope is out or not receiv radar fix in lieu of Meadow Intersection will be pro upon pilots request or aircraft equipped with ILS VOR will start descent on 14L upon identificati Meadow Intersection.

Radar Monitoring: All turn-ons and final approaches radar monitored regardless of weather conditions. M tor controllers will issue advisory information and trol instructions as may be necessary to insure that craft on final approach remain within an area 1,5 either side of the localizer course. Since the pri responsibility for navigation rests with the pilot, advi information and control instructions issued on the izer voice frequency are limited to those necessa insure separation between aircraft. Pilots need acknowledge transmissions made by the monito troller on localizer voice frequency unless spec requested to do so.

A "no transgression zone" 3,510 feet wide is e lished equidistant between the centerlines of each izer course and displayed on the monitor radar s Should an aircraft on final approach deviate from and enter the "no transgression zone," the monitor troller will issue instructions as are necessary to alter course of that aircraft. Concurrently, immediate a will be taken by the controller monitoring the adj localizer course to cause any aircraft in potential co with the intruding aircraft to alter its flight path

Missed Approach: The missed approach procedure veloped for either runway is designed to provide se tion from the adjacent runway. The pilot may be structed to execute the missed approach procedure at time during the approach.

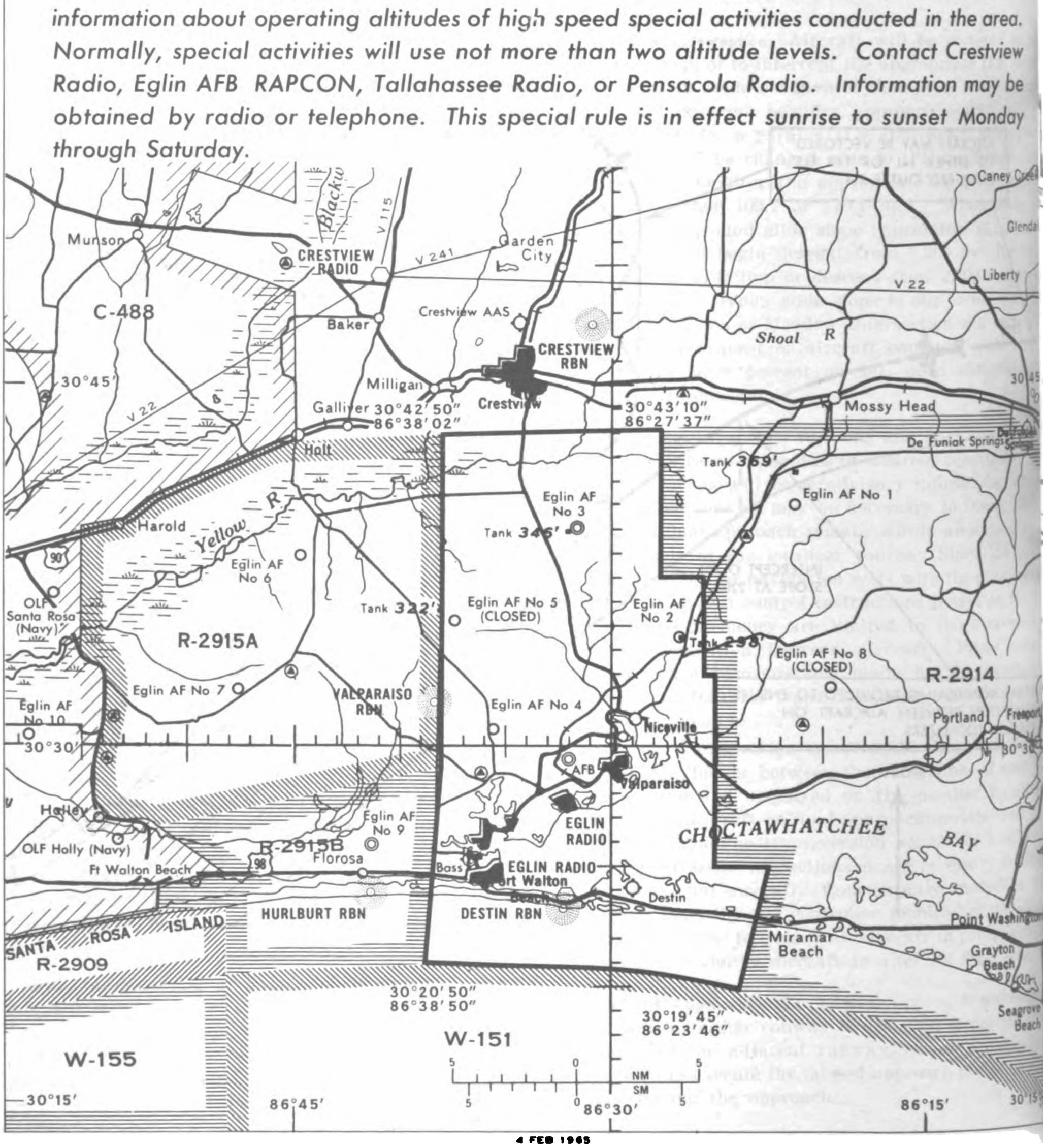

AIRCRAFT MAY BE VECTORED TO EITHER 14L OR 14R ILS FROM ANY OUTER FIX.
3200'
2200'
MEADOW INT INW COURSE OHA ILS & OBK VOR R-213) ESTABLISHED WHERE 3200' ALTITUDE INTERCEPTS GLIDE SLOPE. WHEN GLIDE SLOPE INOPERATIVE, BEGIN DESCENT AT MEADOW INTERSECTION.
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
LOM
INTERCEPT GLIDE SLOPE AT 2200'
LMM
2½°
3°
NO TRANSGRESSION ZONE
14R
14L
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
NORTH

VALPARAISO, FLORIDA, TERMINAL AREA

SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

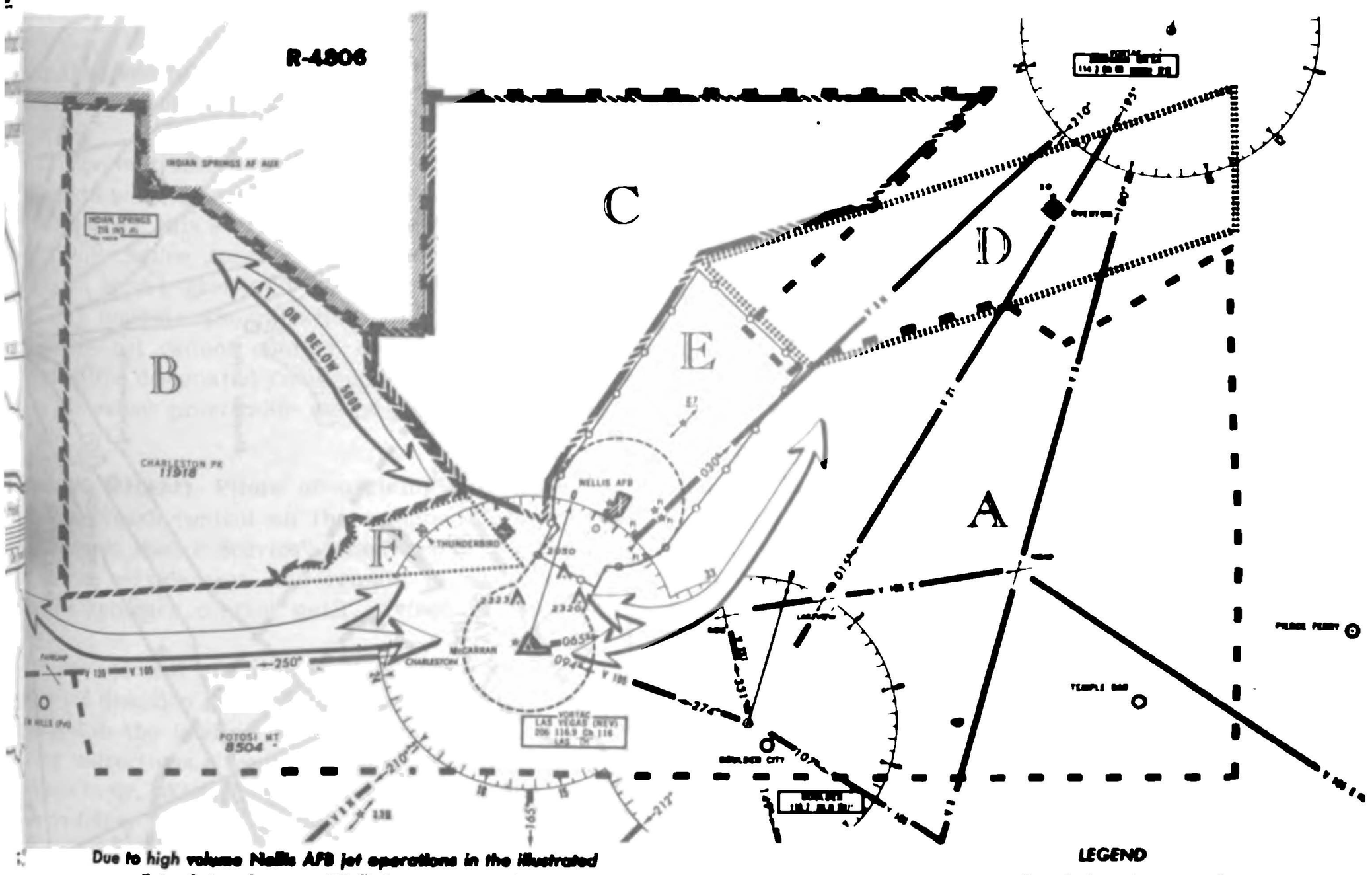
EFFECTIVE DECEMBER 10, 1964

Prior to conducting flight operations in the area shown, pilots are required to obtain information about operating altitudes of high speed special activities conducted in the area. Normally, special activities will use not more than two altitude levels. Contact Crestview Radio, Eglin AFB RAPCON, Tallahassee Radio, or Pensacola Radio. Information may be obtained by radio or telephone. This special rule is in effect sunrise to sunset Monday through Saturday.



4 FEB 1965

LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA



Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and,*
2. a. *Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*

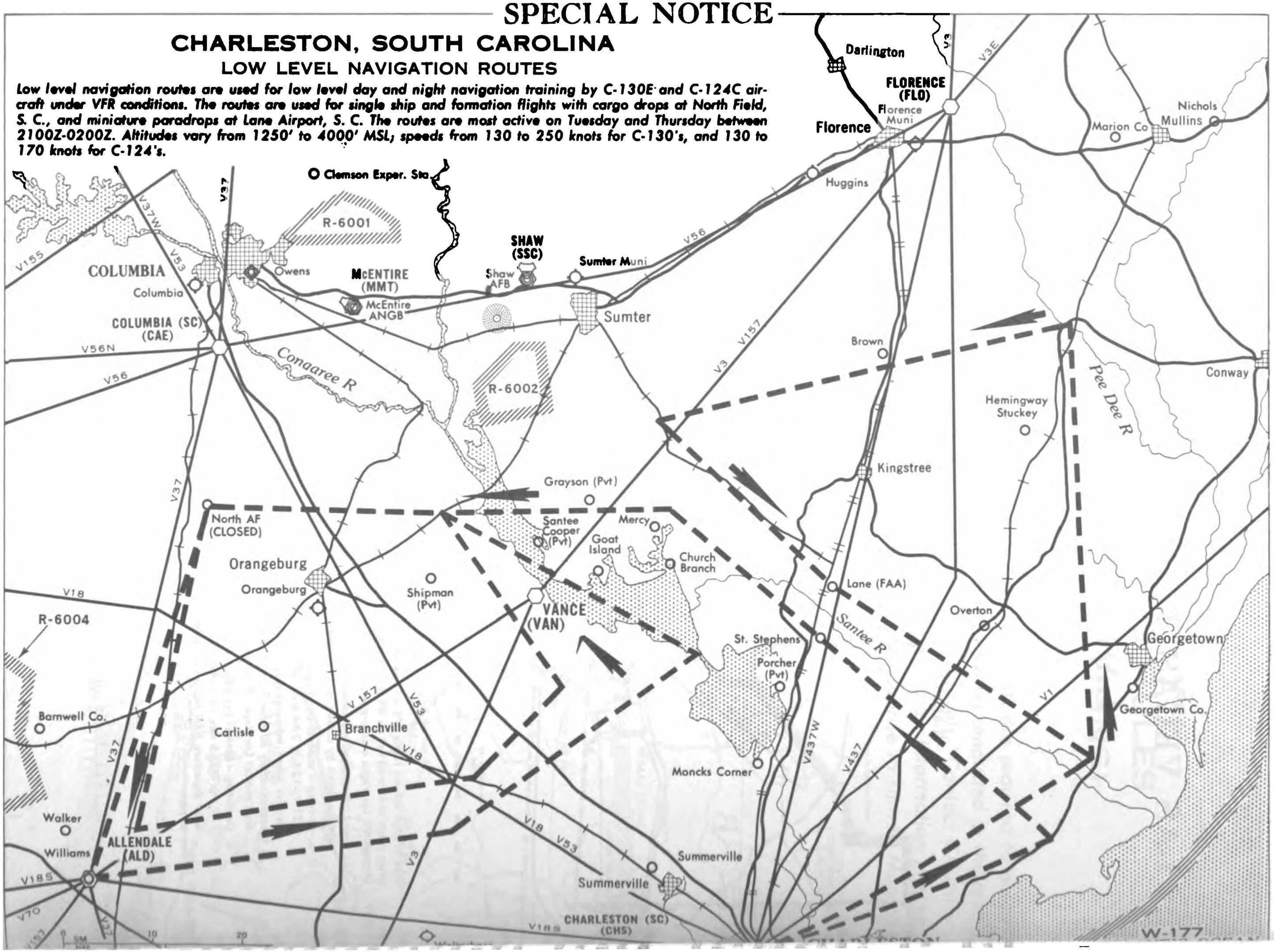
   b. *Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Thunderbird Airport.*

SPECIAL NOTICE

CHARLESTON, SOUTH CAROLINA

LOW LEVEL NAVIGATION ROUTES

Low level navigation routes are used for low level day and night navigation training by C-130E and C-124C aircraft under VFR conditions. The routes are used for single ship and formation flights with cargo drops at North Field, S. C., and miniature paradrops at Lane Airport, S. C. The routes are most active on Tuesday and Thursday between 2100Z-0200Z. Altitudes vary from 1250′ to 4000′ MSL; speeds from 130 to 250 knots for C-130's, and 130 to 170 knots for C-124's.



EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

'ertain approach control facilities are providing ex-nded radar service for arriving and departing flights hin their terminal areas. These services are designed

1. Aid pilots to see and avoid other traffic by pro-ing radar traffic information on possible conflicting ffic, and

2. Improve traffic flow by giving specific routes or dings to properly sequence arrivals.

'ations where this service is provided are listed at the l of this Notice together with information on the ignated service area and frequency to be used. Air-ft with limited communication equipment who desire service but cannot contact approach or departure trol on the designated frequencies will be given serv-to the extent practicable on frequencies available to pilot.

RRIVING AIRCRAFT: Pilots of arriving aircraft should tact approach control on the assigned frequency/ies l "Request Radar Service" when reaching the perim-r of the service area and remain in communication h the approach control until advised to contact the er.

Approach control will advise pilots of the runway to be d, wind direction and velocity, and traffic information. establish the landing sequence, pilots will be given ding instructions if required and/or specific routes or dings to fly. When a pilot reports he has the aircraft is to follow in sight, he will be directed to follow it. en a pilot of an IFR flight, operating in basic VFR ather conditions, is instructed to follow a preceding craft he will be cleared for a "visual approach." This arance may be issued whether or not the IFR flight is erating within the control zone. With a "visual ap-ach" clearance, the pilot operating on an IFR flight n in VFR conditions may deviate from the prescribed trument approach procedure and proceed to the air-t with visual reference to the surface. Radar service ll be terminated when aircraft are told to contact the er and the tower will assign a landing sequence mber.

EPARTING AIRCRAFT: Departing VFR aircraft desiring ffic information should "Request Radar Service" on tial contact with ground control and advise proposed ection of flight. Following takeoff, the tower will ad-e when to contact departure control and the frequency be used.

When radar contact is established, departure control ll provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 18 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 120.8 mc. Aircraft not equipped for two-way communication on 120.8 mc should transmit 122.7 mc and listen on 120.8 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc: all others 121.1 mc or 269.4 mc.

Houston International Airport, Tex.

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 118.3 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 123.7 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Castle AFB Terminal Area Merced, Calif.

EFFECTIVE DATE: 1 JUNE 1963

AREA WITHIN WHICH SERVICE IS PROVIDED: 20 mi radius of Castle AFB, 4000 feet and below. Aircraft entering this area or, departing from airports within this area should contact Castle approach on 118.9 mcs, 137.65 mcs or 294.5 mcs. Aircraft not equipped for two-way communications an 118.9 mcs should transmit on 122.5 mcs and receive on 118.9 mcs or 114.2 mcs.

Los Angeles International Airport, California

EFFECTIVE DATE: 22 SEPTEMBER 1964

Area within which service is provided: 25 nmi. **Arrival fr** 045–224 degrees inbound, 119.3 or 381.6 mc. 225–044 grees inbound, 124.9 or 260.0 mc. If not so equipp trans 122.7 mc and guard above freq or LAX VOR. **parture Freq:** tower, 118.9 mc. then departure control 125.2 or 385.4 mc when outbound 225–045 degrees, 12 or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

EFFECTIVE DATE: 14 SEPTEMBER 1964

Area within which service is provided: 20 nmi, 4000' a below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground cont 121.9 mc then Indianapolis Departure Radar Serv 121.3 mc. Enroute aircraft contact Indianapolis Termi Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

EFFECTIVE DATE: 17 FEBRUARY 1965

Area in which service is provided: Approximately 25 n tical mile radius of Logan International Airport. **rival frequencies:** Aircraft flying to the airport on headi of 035° through 140° should use the frequencies 12 or 281.5 mcs. Those flying headings of 141° thro 034° use 120.6 or 263.1 mcs. Aircraft not so equip should transmit on 122.5 mcs. and listen on the app priate frequency. **Departure frequencies:** 119.1 or 343.6 m

Friendship Intl Airport, Baltimore, Maryland

EFFECTIVE DATE: 11 February 1965

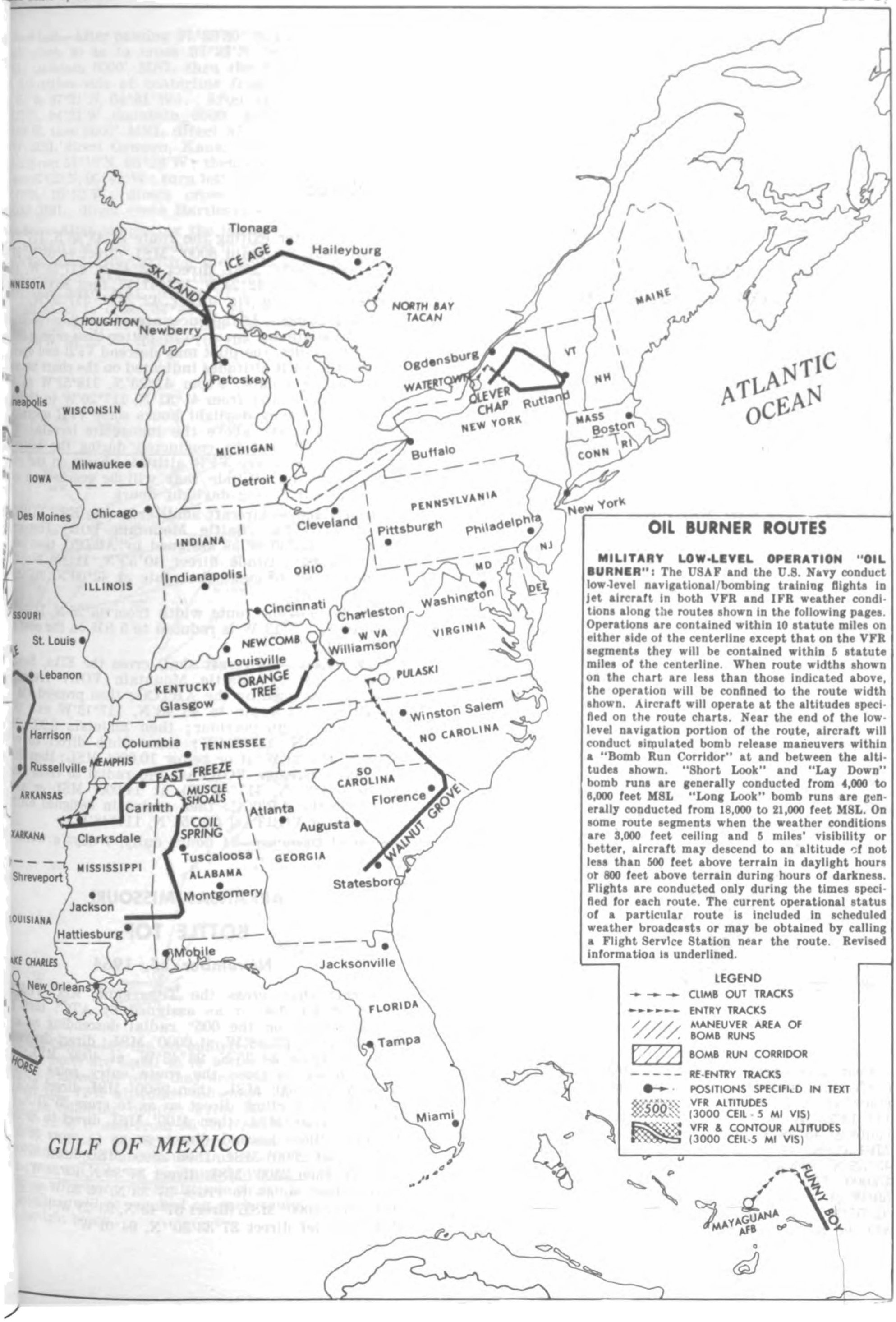
AREA IN WHICH SERVICE IS PROVIDED: Approximately mi radius. **Arrival freq:** In bound on 101° thru 281° · 121.1 mc or 360.8 mc; inbound on 282° thru 100° · 125.9 mc or 307.9 mc. **Departure freq:** 120.4 or 381.4 when advised by tower.

MILITARY AERIAL REFUELING TRACKS

ilitary aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Name	Location	Ingress			Egress		
		Navaid	Bearing Degrees	Distance Miles	Navaid	Bearing Degrees	Distance Miles
:k Warrior	Washington, Idaho	GEG VORTAC	224	54	MLP VOR	164	103
der Town	North Carolina, South Carolina, Virginia, Georgia.	SPA VORTAC LYH VORTAC	233 340	47 17	LYH VORTAC SPA VORTAC	340 233	17 47
s Over Alpha	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 263	99 133	CZI VOR BOI VORTAC	263 354	133 99
s Over Bravo	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 255	79 137	CZI VOR BOI VORTAC	255 354	137 79
s Jar	Minnesota, Wisconsin	RWY VOR RWF VOR	260 140	26 30	RWF VOR ALO VORTAC	140 034	30 38
en Heart	Kansas-Nebraska	ICT VORTAC LBF VORTAC	262 005	65 42	LBF VORTAC ICT VORTAC	005 262	42 65
lden Heart Lima	Kansas-Nebraska	ICT VORTAC HCT VORTAC	262 003	65 78	HCT VORTAC ICT VORTAC	003 262	78 65
stock Alpha	New York, Pennsylvania	BUF VORTAC ALB VORTAC	230 259	41 36	ALB VORTAC BUF VORTAC	259 230	36 41
stock Bravo	New York, Pennsylvania	ERI VORTAC ALB VORTAC	081 244	16 55	ALB VORTAC ERI VORTAC	244 081	55 16
. Proof	Oregon	DLS VORTAC REO VOR	217 173	33 63	REO VOR DLS VORTAC	173 217	63 33
e Bug Alfa	South Dakota-North Dakota	ABR VOR DIK VORTAC	158 333	53 78	DIK VORTAC ABR VOR	333 158	78 53
e Bug Bravo	South Dakota-North Dakota	ABR VOR DIK VORTAC	174 320	66 69	DIK VORTAC ABR VOR	320 174	69 66
le Tree Alpha	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	049 236	104 34	PQI VOR ALB VORTAC	236 049	34 104
le Tree Bravo	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	060 211	102 45	PQI VOR ALB VORTAC	211 060	45 102
Road Alfa	Wisconsin. Minnesota, South Dakota	GRB VORTAC ABR VOR	320 039	115 77	ABR VOR GRB VORTAC	039 320	77 115
Road Bravo	Wisconsin. Minnesota, South Dakota	GRB VORTAC ABR VOR	311 052	102 65	ABR VOR GRB VORTAC	052 311	65 102
h Wind Lima Alpha	Montana, Washington	GEG VORTAC LWT VOR	001 350	72 95	LWT VOR GEG VORTAC	350 001	95 72
h Wind Lima Bravo	Montana, Washington	GEG VORTAC LWT VOR	008 354	52 74	LWT VOR GEG VORTAC	354 008	74 52
ate Eye	Louisiana, Mississippi, Tennessee	MSY VORTAC MEM VORTAC	222 212	79 63	MEM VORTAC MYS VORTAC	212 222	63 79

Seattle
WASHINGTON
Spokane
Portland
Prineville
JOHN DAY
OREGON
TAIL HOOK
Medford
Alkali Lake
LAKEVIEW
BEEF EATER
Ontario
Boise
IDAHO
MONTANA
Jordon
MILES CITY
Williston
FLINT ROCK
Garrison
NORTH DAKOTA
Bismarck
WYOMING
SOUTH DAKOTA
Phillip
Mitchell
SILVER LAY
CASPER
Ainsworth
Wheatland
POOL SHARK
Cheyenne
BULL RING
NEBRASKA
Kearney
Sterling
Denver
Norton
Big Mountain
Austin
Reno
ELKO
Eureka
Mina
LITTLE SATIN
San Francisco
Salt Lake City
UTAH
NEVADA
COLORADO
Cheyenne Wells
Colby
CLEAR VIEW
Kansas Ci
CALIFORNIA
St George
Las Vegas
SLEEPY EYE
La Junta
Scott City
KANSAS
Springfield
Pittsbur
Clayton
ZERO HOUR
Los Angeles
ARIZONA
Santa Rosa
ALBUQUERQUE
Oklahoma City
OKLAHOMA
San Diego
Phoenix
CORONA
NEW MEXICO
Tucson
El Paso
Dallas
TEXAS
Austin
San Antonio
Houston
Palacios
PACIFIC OCEAN
LEGEND
VOR/VORTAC Entry Points
Oil Burner Routes
IRON MAN
Target
Aircraft
Jet
Speed
Sub-Sonic
Routes Flown IFR/VFR,
May Be in Use 7 Days a Week
Day/Night



OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 10 statute miles on either side of the centerline except that on the VFR segments they will be contained within 5 statute miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

LEGEND

- CLIMB OUT TRACKS
- ENTRY TRACKS
- MANEUVER AREA OF BOMB RUNS
- BOMB RUN CORRIDOR
- RE-ENTRY TRACKS
- POSITIONS SPECIFIED IN TEXT
- 500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
- VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

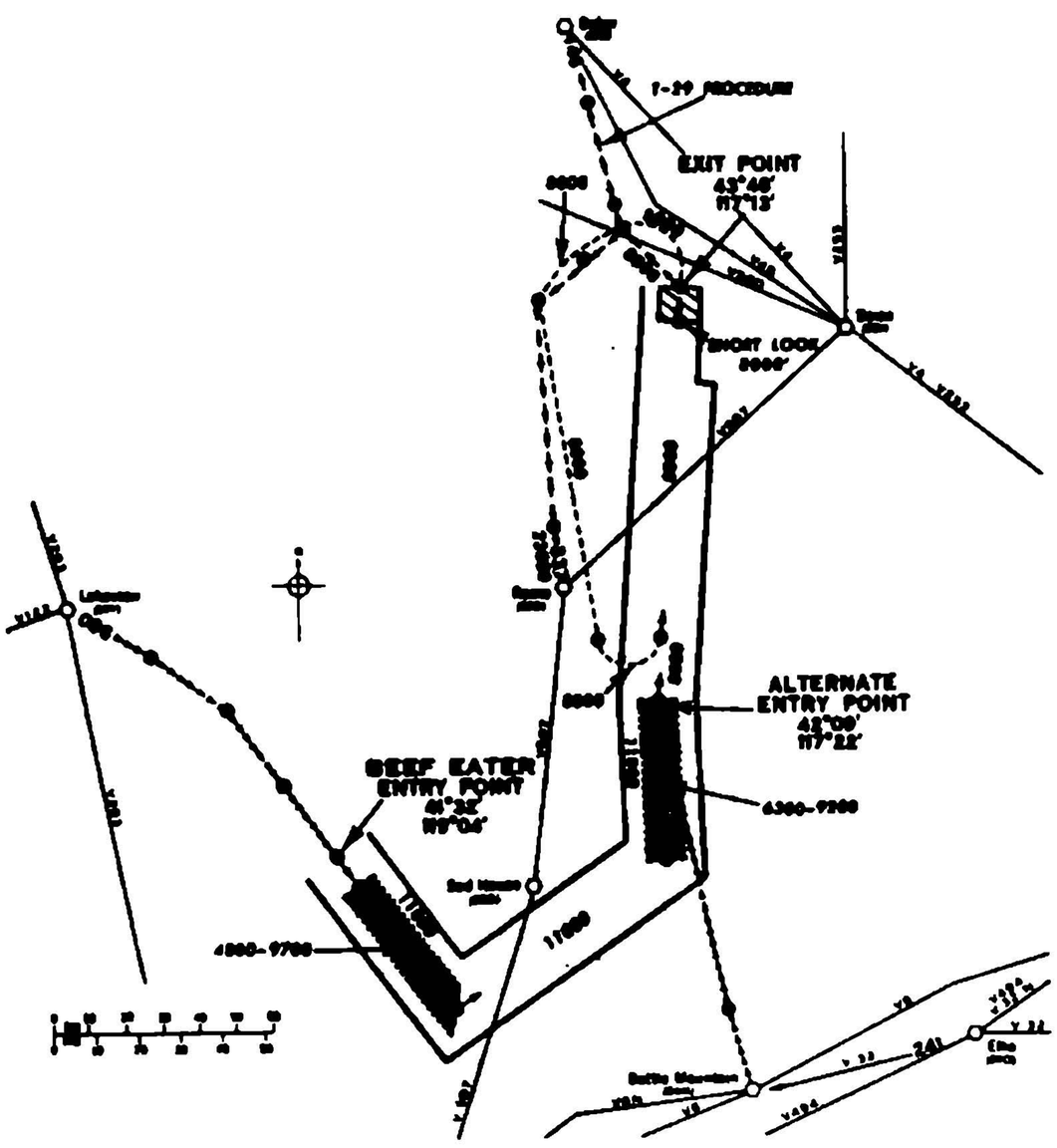
OIL BURNER ROUTES

NEVADA/OREGON

BEEF EATER

Effective May 3, 1964

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 096° radial until 22 NM east of the Lakeview VORTAC (42°-20'N, 120°04'W); then descend direct to cross 42°07'N, 119°39'W at or below FL 230; then descend direct to cross 41°49'N, 119°21'W at or above 16,000' MSL; then descend direct to cross the entry point of the low level route at 41°32'N, 119°04'W at 11,000' MSL, then 11,000' MSL direct 40°55'N, 118°27'W, then 11,000' MSL direct 41°31'N, 117°20'W, then 11,000'. MSL direct 42°09'N, 117°22'W; then descend to cross 42°26'N, 117°20'W at 8000' MSL, then 8000' MSL direct 43°40'N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (5 SM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°-59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 230, then maintain FL 230 via the Rome 337° radial to the Rome, Oregon. VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13' aircraft shall maintain 8000' MSL direct 44°03'N, 11 31'W, then 8000' MSL direct 43°45'N, 117°59'W, th 8000' MSL direct 42°24'N, 117°41'W, then 8000' MSL re-enter the route via direct 42°26'N, 117°20'W.

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and opera between the VFR altitudes indicated on the chart betwe the following points: From 41°25'N, 118°57'W to 4 55'N, 118°27'W and from 41°31'N, 117°20'W to 42°09' 117°22'W. During daylight hours some VFR operatio will be flown 800' above the immediate terrain. VF operations will not be conducted during the hours darkness. The lower VFR altitude shown on the cha is the minimum altitude that will be reached on ea route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Elko VORT 241/54 DME fix (Battle Mountain VOR) (reporti point) at FL 230 or as assigned by ARTCC, then mai tain assigned altitude direct 40°55'N, 117°01'W; th descend direct to enter the route at 42°09'N, 117°22' at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°15' to 43°48'N, 117°13'W is reduced to 5 SM on the east si of the centerline.

T-29 Procedure—Aircraft shall cross the Elko, Nevad VORTAC 241/54 (Battle Mountain VOR) (reporti point) as assigned by the ARTCC; then proceed via t alternate entry route to 43°48'N, 117°13'W exit poi of the bomb run corridor; then maintain 8,000' MS direct 44°03'N, 117°31'W; then climb direct to cro 44°08'N, 117°33'W at or below 10,000' MSL; then dire via Baker, Oregon, VORTAC 146 radial to cross Bak 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as a signed by the ARTCC; then maintain assigned altitu direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

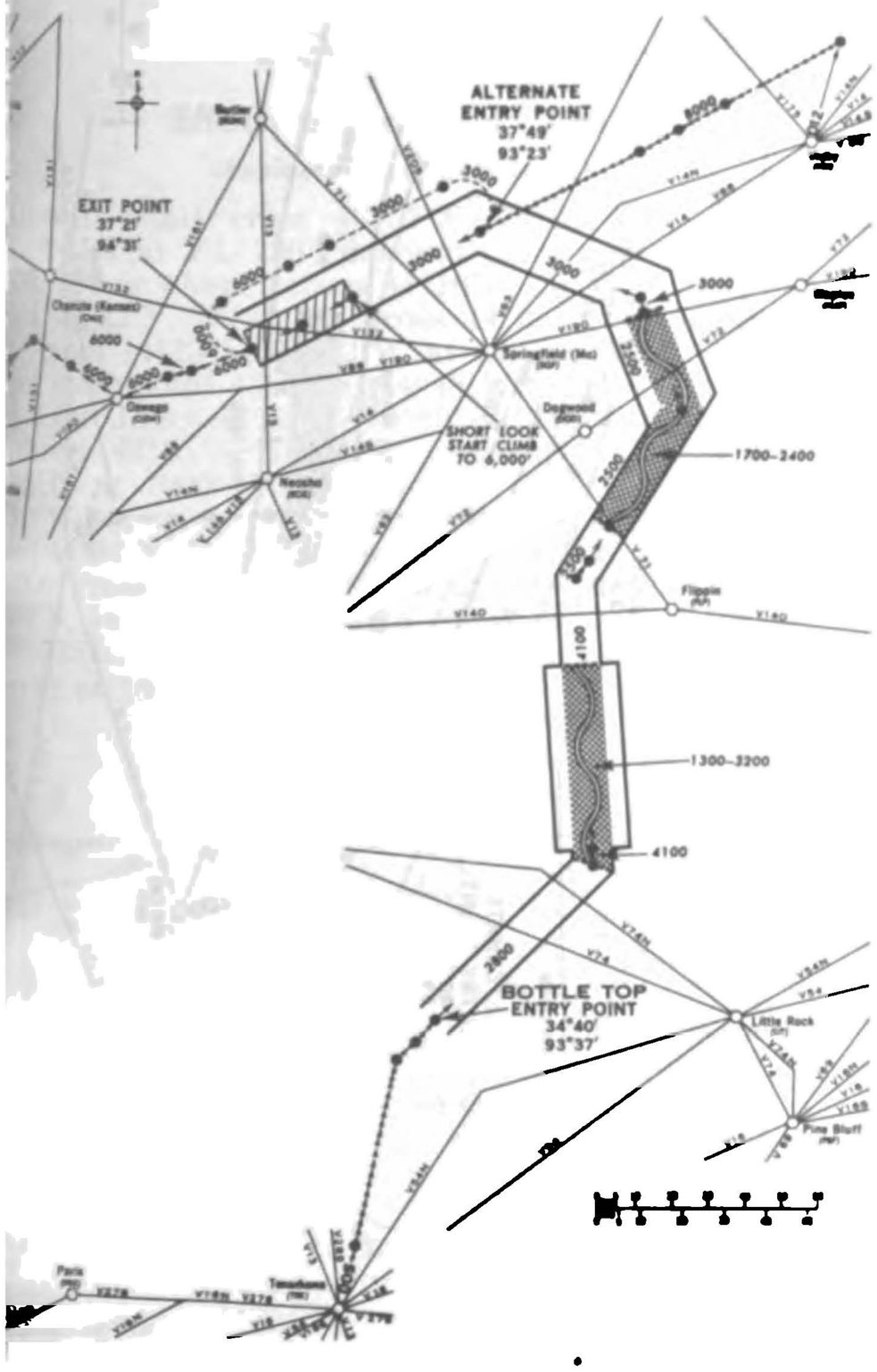
BOTTLE TOP

November 15, 1964

Aircraft shall cross the Texarkana, Ark. VORTA 005/15 at FL 190 or as assigned by ATC; then pr ceed outbound on the 005° radial descending so as cross 34°31'N, 93°48'W, at 6000' MSL; direct descendi so as to cross 34°35'N, 93°43'W, at 4000' MSL; th direct so as to cross the route entry point 34°40' 93°37'W at 2800' MSL, then 2800' MSL direct 35°17' 92°51'W; then climb direct so as to cross 35°21'N, 9 51'W, at 4100' MSL, then 4100' MSL direct to 36°26' 92°55'W; then descend direct so as to cross 36°30' 92°52'W, at 2500' MSL, then 2500' MSL direct 37°05' 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; th climb direct so as to cross 37°33'N, 92°35'W at 3 MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3 MSL turn lef direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30''N, 94°01'W, aircraft shall climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor 5 SM either side of centerline from 37°33'30''N, 94°-01'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 95°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 6,000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°-31'W, maintain 6000' MSL, turn right to 37°32'N, 94°-31'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°00'N, 93°34'W, then 3000' MSL turn right to 37°49'N, 93°23'W, thence via the published route.



Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ATC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34''W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°-06'N, 92°23'W is reduced to 5 SM either side of centerline and 5 SM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W.

Hours of Operation—0100Z to 1400Z, 7 days per week.

KANSAS/NEBRASKA/SOUTH DAKOTA

BULL RING

Effective March 1 thru August 27, 1965

Aircraft shall cross the Sioux Falls VORTAC 269/55 (43°46'N, 98°02'W) at FL 230 or as assigned by ARTC;

FR and Contour—If the encountered weather conditions ng the route are equal to or better than ceiling 3000', bility 5 miles, the pilot may descend VFR and operate reen the VFR altitudes indicated on the chart be-en the following points: From 35°17'N, 92°51'W to 5'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 4'W. During daylight hours, some VFR operations be flown 800' above the immediate terrain. VFR rations will not be conducted during the hours of ness. The lower VFR altitude shown is the minimum tude that will be reached on each route segment dur-daylight hours.

then descend direct so as to cross 43°02′N, 99°06′W at 8,000′ MSL; then at 8,000′ MSL direct to 42°54′N, 99°-17′W; then descend direct so as to cross 42°35′N, 99°31′W at 4,000′ MSL (Low Level Entry Point); then at 4,000′ MSL direct to 40°41′N, 99°38′W; then at 4,000′ MSL direct to 40°00′N, 100°10′W; then at 4,200′ MSL direct to 39°26′N, 100°36′W; then at 4,200′ MSL direct to 39°-13′N, 100°37′W; then at 4,100′ MSL direct to the entry point of the bomb run corridor at 38°50′N, 100°40′W.

Short Look and Lay Down—After passing 38°50′N, 100°-40′W aircraft shall maintain between 3,000′ MSL and 6,000′ MSL through the bomb run corridor (5 SM either side of centerline from 38°50′N, 100°40′W to 38°23′N, 100°43′W), the minimum IFR altitude through the bomb run corridor is 4,100′ MSL. After exiting the route at 38°23′N, 100°43′W, aircraft shall turn left climbing to 38°20′N, 100°26′W; then continue climb direct so as to cross 38°31′N, 100°24′W at 16,000′ MSL; then at 16,000′ MSL direct 38°40′N, 100°23′W; then at 16,000′ MSL turn left to 38°41′N, 100°41′W; then climb direct to the Dodge City, Kansas, VOR crossing 38°19′N, 100°24′W at FL 230; then at FL 230 to the Dodge City VOR.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 38°23′N, 100°43′W, turn left and climb so as to cross 38°20′N, 100°26′W at 8,000′ MSL; then at 8,000′ MSL direct 39°21′N, 99°30′W; then at 8,000′ MSL turn left to 39°31′N, 99°34′W then at 8,000′ MSL direct 39°31′N, 100°12′W; then start descent direct so as to cross 39°31′N, 100°28′ at 4,200′ MSL; then turn left at 4,200′ MSL to 39°26′N, 100°36′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′; visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°25′N, 99°32′W to 41°35′N, 99°35′W and from 39°13′N, 100°37′W to 38°-23′N, 100°43′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude on the chart is the minimum altitude that will be reached during daylight hours.

Route Width—The route width is reduced to 5 SM on each side of centerline from 40°53′N, 99°38′W to 39°-35′N, 100°30′W.

Hours of Operation—24 hours daily, 7 days a week.

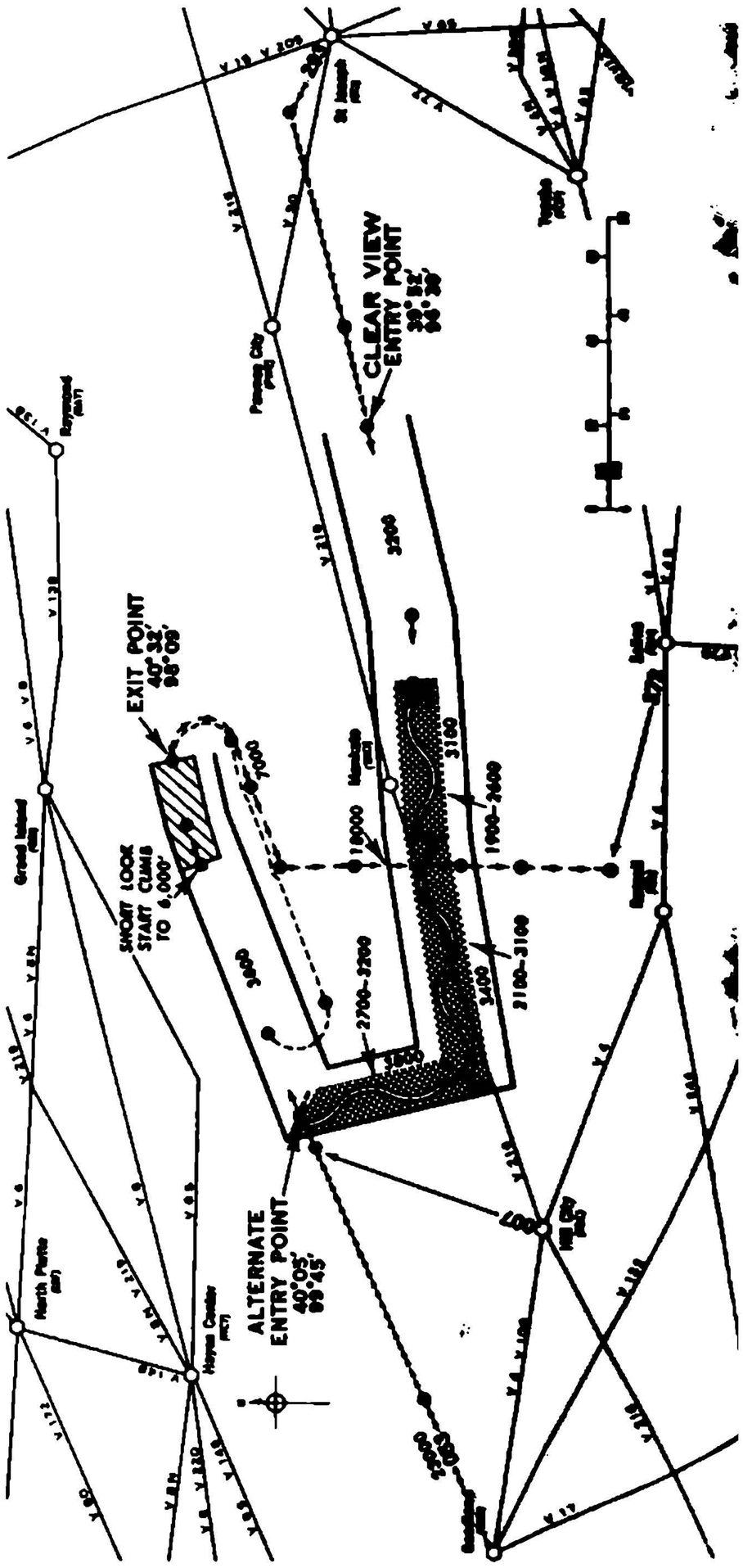
KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW

Revised Effective December 24, 1964

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 293° radial, maintain FL 240 or above until 17 NM northwest of St. Joseph VOR; turn left direct 39°56′N, 96°12′W crossing this point at 9000′ MSL, descend to 3200′ MSL direct to the route entry point at 39°52′N, 96°39′W, maintain 3200′ MSL direct 39°43′N, 97°30′W, descend to 3100′ MSL direct 39°40′N, 98°30′W, climb to 3400′ MSL direct 39°31′N, 99°34′W, climb to 3800′ MSL direct 40°05′N, 99°45′W; maintain 3800′ MSL direct 40°26′N, 98°37′W.

Short Look—After passing 40°26′N, 98°37′W, proceed direct to 40°29′N, 98°27′W climbing so as to cross this point at 6000′ MSL; maintain 6000′ MSL through the bomb run corridor (5 SM either side centerline from 40°26′N, 98°37′W to 40°32′N, 98°09′W); after exiting the route at 40°32′N, 98°09′W, turn right climbing to cross 40°20′N, 98°03′W at 7000′ MSL; then at 700 MSL direct 40°16′N, 98°16′W; then start climb so as cross 40°10′N, 98°37′W at or below 14,000′ MSL; th turn left climbing so as to cross 39°54′N, 98°37′W FL 180; then at FL 180 direct 39°33′N, 98°37′W; th climb so as to cross 39°21′N, 98°37′W at or below FL 2 then start climb so as to cross the Salina VORTA 272/48 at FL 250.



Re-Entry—After completing the initial Short Look bo run, aircraft that are scheduled to execute an addition bomb run shall, after exiting the route at 40°32′N, 9 09′W, turn right climbing to 7000′ MSL to 40°2 98°03′W, maintain 7000′ MSL direct 40°00′N, 99°14′W turn right descending to 3800′ MSL to 40°12′N, 99°2 thence via the published route.

VFR and Contour—If the encountered weather conditio along the route are equal to or better than ceiling 3 visibility 5 miles, the pilot may descend VFR and op ate between the VFR altitudes indicated on the cha between the following points: From 39°42′N, 97°48′W 40°05′N, 99°45′W. During daylight hours, some VF operations will be flown 500′ above the immediate te

in. VFR operations conducted during the hours of rkness will not be flown lower than 800' above the rain. The lower VFR altitude shown on the chart is e minimum altitude that will be reached on each route gment during daylight hours.

Alternate Entry—Aircraft shall cross the Goodland, Kan- VOR at FL 230; and proceed northeast on the Good- d VOR 053° radial maintaining FL 230 until 35 NM rtheast of Goodland VOR, then descend so as to reach 0' MSL by the Hill City, Kansas VOR 007/49 NM fix; n descend to 3800' MSL direct 40°05'N, 99°45'W, nce via the published route.

Route Width—The route width from 39°31'N, 99°34'W the route exit point is 5 SM on the west and north e of the route centerline and 10 SM on the east and th side of the route centerline.

Hours of Operation—0000Z to 2359Z Monday through turday.

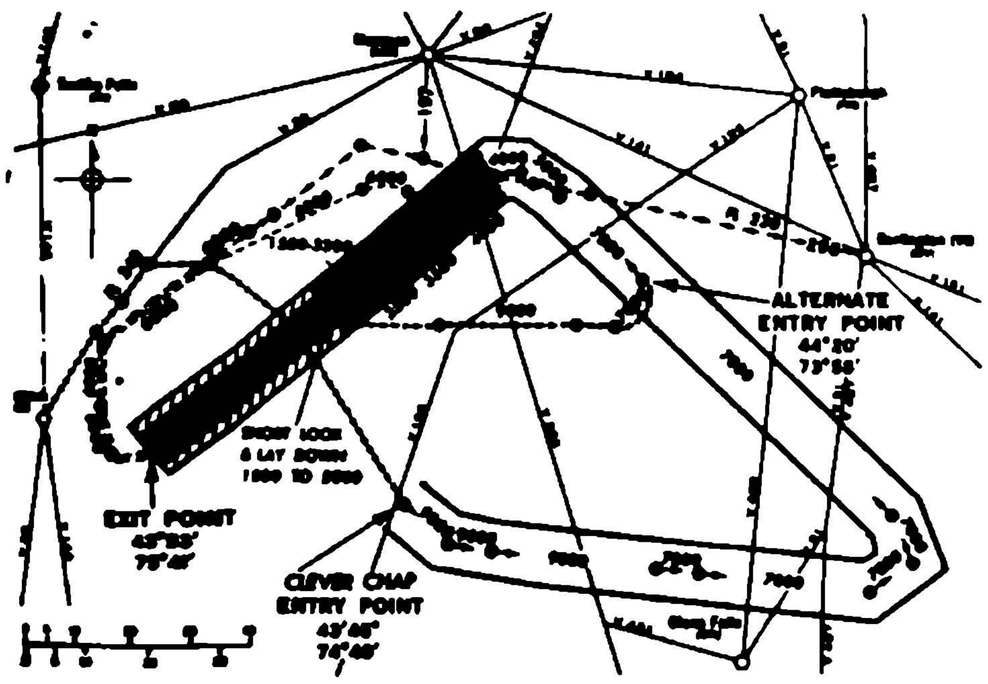
NEW YORK/VERMONT

•CLEVER CHAP

Effective March 4, 1965

(Replaces Short Doll Route)

Aircraft shall cross 43°57'N, 76°04'W (Watertown, . VOR) at FL 290; descend cross 44°11'N, 75°52'W FL 250 or above; cross 44°16'N, 75°47'W at FL 240; ect 44°22'N, 75°42'W; cross 44°22'N, 75°30'W at FL ; cross 44°13'N, 75°12'W at 14,000' MSL; cross low el entry point 43°45'N, 74°48'W at 9000' MSL; main- 9000' direct 43°39'N, 74°39'W direct 43°38'N, 74°30' direct 43°35'N, 73°55'W descend to cross 43°34'N, 46'W at 7000' MSL maintain 7000' direct 43°31'N, 10'W left turn to 43°36'N, 73°01'W to 43°43'N, 73°05'W ect 44°33'N, 74°16'W descend to cross 44°37'N, 74°24'W 000' cross 44°37'N, 74°30'W at 4000' maintain 4000' to 28'N, 74°44'W descend to cross 44°26'N, 74°47'W at 0' MSL; direct at 3500' MSL to enter bomb run cor- or at 44°15'N, 75°05'W.



Short Look and Lay Down—After passing 44°15'N, 75°05'W craft shall operate through bomb run corridor between 0' MSL and 5000' MSL. Minimum IFR altitude ough the bomb run corridor is 3500' MSL (the bomb corridor is 5 SM either side of centerline from 44°15' 75°05'W to 43°53'N, 75°41'W). After exiting the low el route at 43°53'N, 75°41'W aircraft shall turn right l climb so as to cross 43°52'N, 75°48'W at 6000' MSL. intain 6000' MSL direct 44°00'N, 75°51'W; direct 10'N, 75°51'W, direct 44°27'N, 75°22'W; climb cross 44°30'N, 75°17'W at 13,000' MSL or below; cross 44°41'N, 74°58'W at 14,000' (Burlington, Vt. VOR 298 radial) cross 44°39'N, 74°45'W at 16,000' (Massena, N.Y. VOR 197 radial); cross 44°35'30"N, 74°21'W at FL 200; climb to cross 44°33'30"N, 74°09'W at FL 230, maintain FL 230 direct 44°24'N, 73°11'W (Burlington, Vt. VOR).

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6000' MSL; maintain 6000' direct 44°00'N, 75°51'W; direct 44°10'N, 75°51'W direct 44°22'N, 75°30'W direct 44°34'N, 74°57'W at 6000' MSL; turn right to 44°34'N, 74°48'W descending to cross 44°26' N, 74°47'W at 3500' MSL, thence via the Clever Chap route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated between the following points: From 44°37'N, 74°30'W to 43°53'N, 75°41'W. During daylight hours some VFR operations will be flown 800' above the immediate terrain. The lower VFR altitude is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 290; descend, cross 44°11' N, 75°52'W at FL 250 or above; cross 44°16'N, 75°47'W at FL 240; direct 44°22'N, 75°42'W; cross 44°22'N, 75°30' W at FL 190. Cross 44°13'N, 75°12'W at 14,000' MSL; continue descend to cross 44°13'N, 74°41'W at 9000' MSL; maintain 9000' direct 44°13'N, 74°12'W; start descend, cross 44°13'N, 74°04'W at 7000' MSL; maintain 7000' MSL direct 44°20'N, 73°58'W, thence via the Clever Chap route.

Route Width—The entire low level route is reduced to 5 SM either side of centerline.

Hours of Operation—0000Z to 2359Z Monday through Sunday.

ALABAMA/MISSISSIPPI

COIL SPRING

Revised Effective October 18, 1964

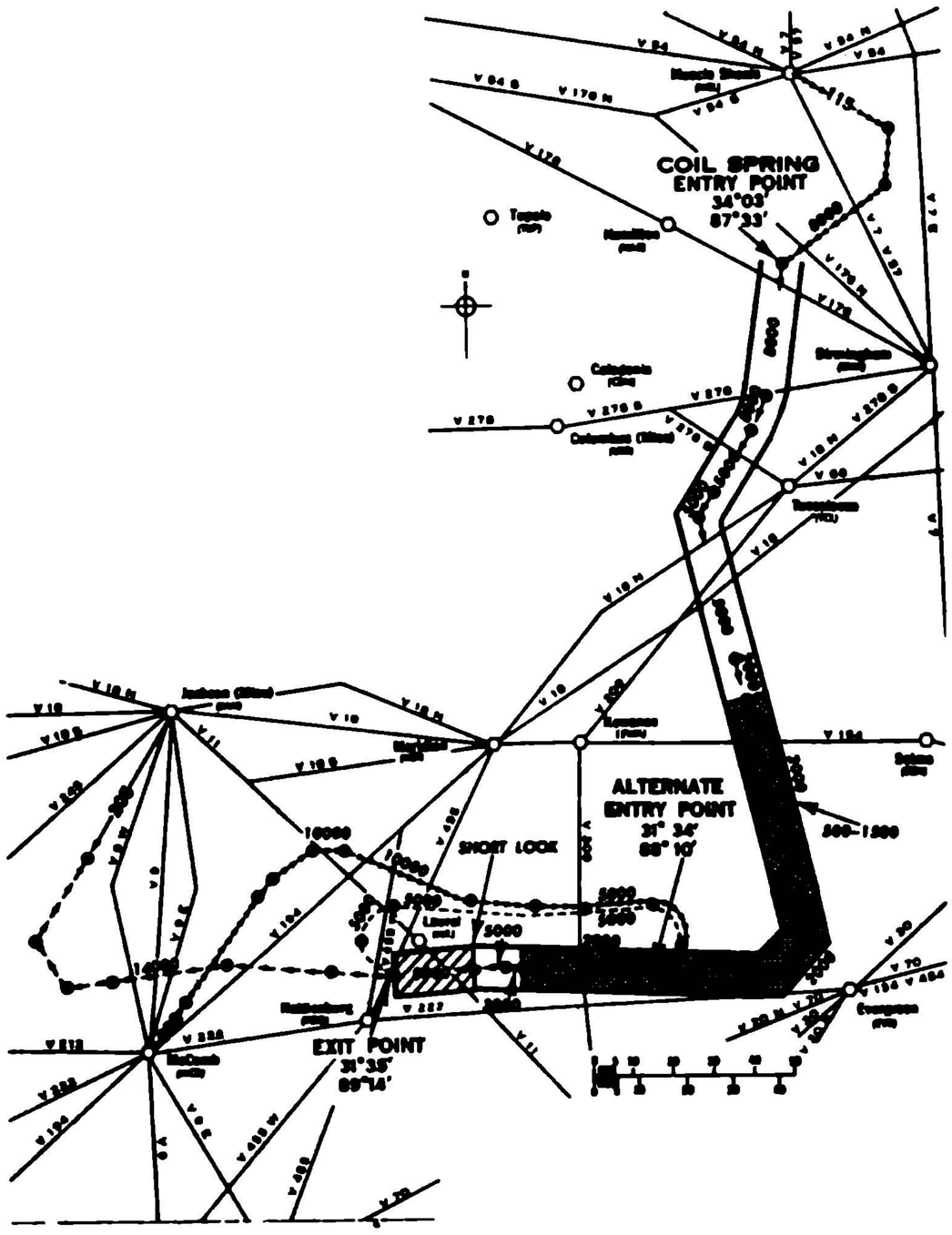
Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 115° radial, cross Muscle Shoals VOR 115°/24 NM at 12,000' MSL; turn right, descend to cross 34°19'N, 87°06'W at 8000' MSL, maintain 8000' MSL direct to the route entry point at 34°03'N, 87°33'W, direct 33°-35'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct to cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' MSL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; descend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to 31°33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 88°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' MSL, direct to cross 31°36'N, 88°55'W at 5000' MSL. In addition to the above, aircraft may climb to 3000' MSL after 31°33'N, 87°40'W and maintain 3000' MSL to 31°36'N, 88°55'W during the hours 0600Z–1200Z.

Short Look—After passing 31°36'N, 88°55'W aircraft shall operate through the bomb run corridor at 5000' MSL. In addition, aircraft may operate through the bomb run corridor at 3000' MSL during the hours 0600Z–1200Z. (The bomb run corridor is 5 SM either side centerline from 31°36'N, 88°55'W to 31°35'N, 89°14'W.) After exiting the route at 31°35'N, 89°14'W, aircraft shall cross 31°36'N, 89°30'W at 5000' MSL; start climb direct to cross 31°37'N, 89°56'W at 14,000' MSL (reporting point), maintain 14,000' MSL direct 31°33'N,

90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 205° radial 56 NM fix (31°42′N, 90°44′W) at or below FL 230, thence via 205° radial to cross 36 NM fix at FL 250, maintain FL 250 or as assigned to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35′N, 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000′ MSL, maintain 5000′ MSL, turn right to 31°49′N, 89°-14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W; turn right, cross 31°40′N, 88°03′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 32°31′N, 87°-45′W to 31°36′N, 88°42′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.



Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18′15″N, 90°15′29″W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 13 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000′ MSL; cross 45 NM fix at 14,000′ MSL; turn right, cross 32°01′N, 89°35′W at 10,000′ MSL, maintain 10,000′ MSL, turn right, 32°01′N, 89°27′W, direct 31°49′N, 88°55′W; descend direct, cross 31°48′N, 88°39′W at 6000′ MSL; direct, cross 31°48′N, 88°27′W at 5000′ MSL, maintain 5000′ MSL direct 31°48′N, 88°10′W; turn right cross 31°40′N, 88°03′W at 3000′ MSL continue turn, cro 31°34′N, 88°10′W at 2000′ MSL; thence via the pu lished route.

Route Width—The entire route is reduced to 5 SM eith side of route centerline.

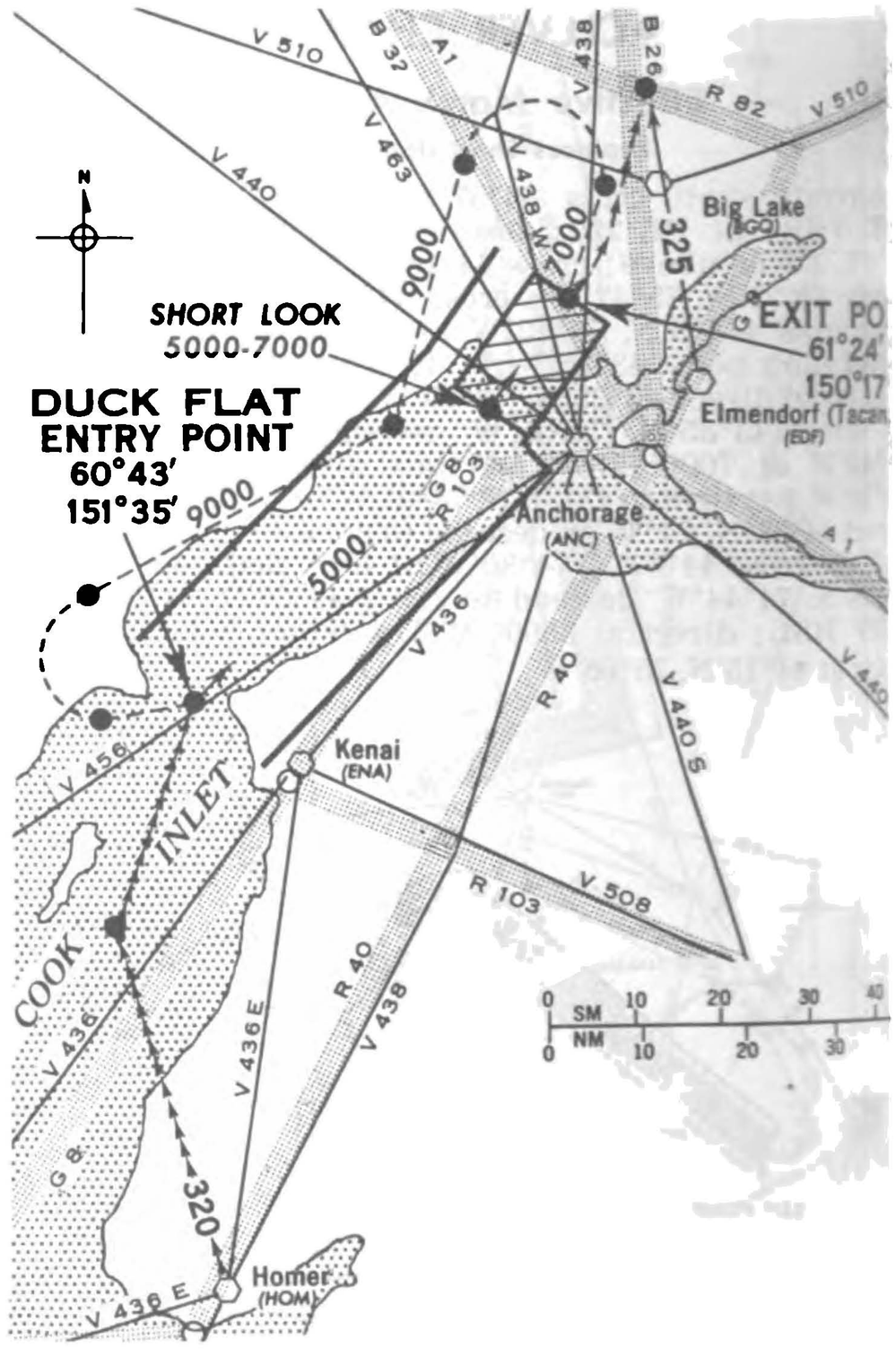
Hours of Operation—24 hours per day, 7 days a week.

DUCK FLAT

ALASKA

Effective June 16, 1963

Aircraft shall cross the Homer, Alaska VOR (reporti point) at FL 250 or as assigned by ARTCC, descend v the 320° radial of the Homer VOR to 60°20′N, 151°50′ continue descent to cross the route entry point at 6 43′N, 151°35′W at 5000′ MSL, maintain 5000′ MSL 61°13′, 150°34′W.



Short Look—After passing 61°13′N, 150°34′W aircra shall maintain between 5000′ MSL and 7000′ MS through the bomb run corridor (5 smi either side cente line from 61°13′N, 150°34′W to 61°24′N, 150°17′W After passing 61°24′N, 150°17′W (reporting point), t route exit point, aircraft shall climb to or maintain 70 MSL direct to the Elmendorf TACAN 325° radial 30 N fix (Willow Intersection).

Re-Entry—After completing the initial bomb run aircra that are scheduled to execute an additional bomb ru shall, after exiting the route at 61°24′N, 150°17′W, mai

ain 7000' MSL to 61°35'N, 150°08'W, then turn left limbing to 9000' MSL direct to 61°38'N, 150°38'W, then 000' MSL to 61°13'N, 150°54'W, then 9000' MSL direct 0°53'N, 151°57'W, then a left descending turn to cross 0°41'N, 151°54'W at 7000' MSL or above, direct to re-atry the Duck Flat route at 60°43'N, 151°35'W at 5000' SL.

Route Width—The route width is reduced to 5 sml southst of centerline from 61°13'N, 150°34'W to 61°24'N, 0°17'W.

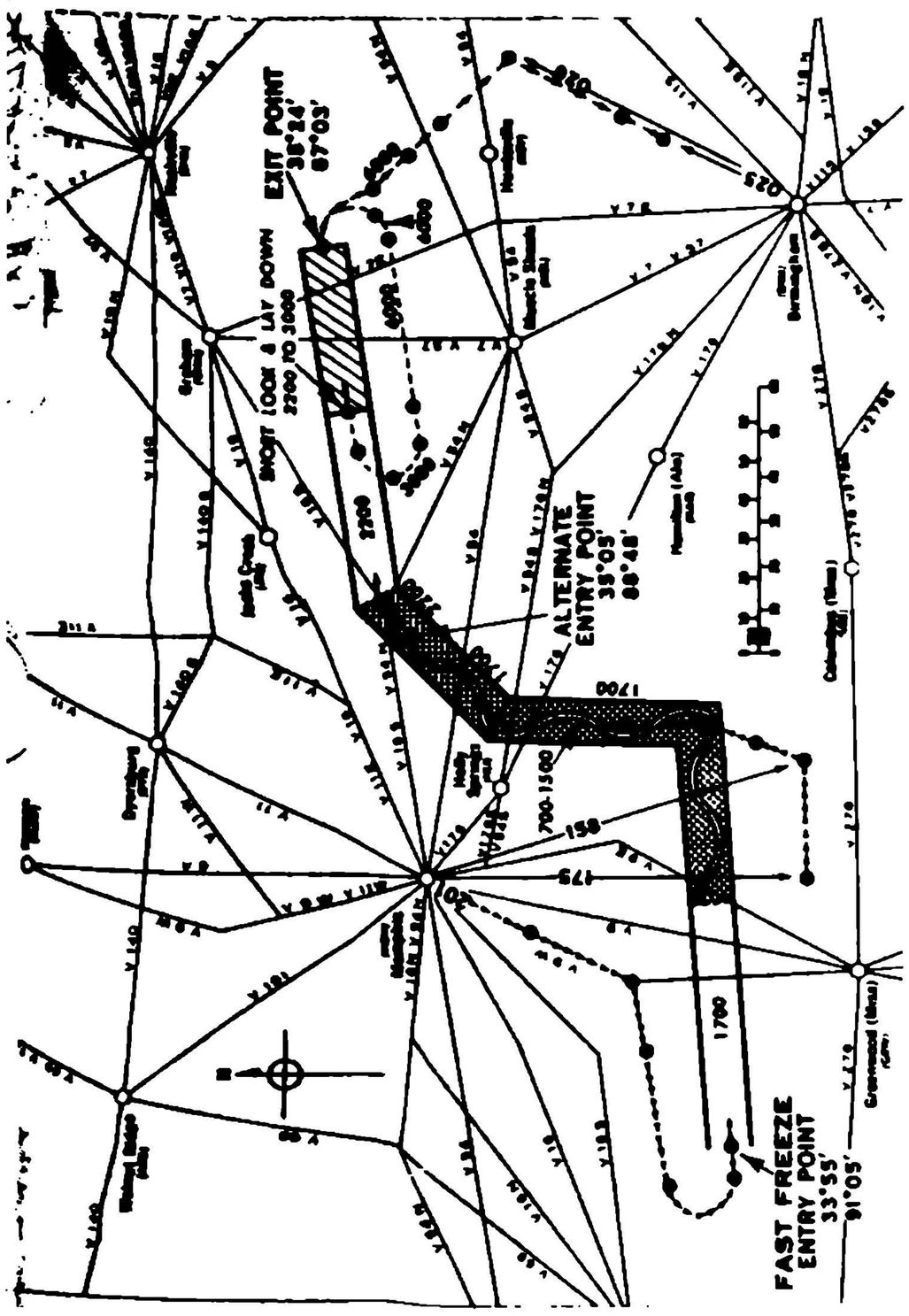
Hours of Operation—2000Z to 2400Z Monday through riday.

ALABAMA/MISSISSIPPI/TENNESSEE

FAST FREEZE

Effective January 4, 1965 through March 27, 1965

Aircraft shall cross the Memphis, Tennessee, VORTAC' FL 250 or as assigned by ARTC; then maintain FL 0 or assigned altitude via the 201° radial of the Memis VORTAC' to the 26 NM DME fix (34°39'N, 90°-'W); then descend direct so as to cross 34°17'N, °21'W (201/50 NM DME fix of Memphis VORTAC') FL 200; then descend direct so as to cross 34°14'N, °40'W at 16,000' MSL; then descend direct to 34°08'N,



°16'W; then turn left descending to 33°54'N, 91°13'W; en continue descend direct so as to cross 33°55'N, 91°-'W at 1700' MSL (low level entry point); then at 1700' MSL direct to 34°03'N, 89°12'W; then at 1700' MSL direct to 34°47'N, 89°11'W; then at 1700' MSL direct to 35°05'N, 88°48'W; then at 2200' MSL direct to 35°13'N, 88°39'W; then at 2200' MSL direct to 35°19'N, 87°47'W.

Short Look and Lay Down—After passing 35°19'N, 87°-47'W aircraft shall maintain between 2200' MSL and 3000' MSL through the bomb run corridor (5 statute miles either side of centerline from 35°19'N, 87°47'W to 35°24'N, 87°03'W). After exiting the route at 35°-24'N, 87°03'W, aircraft shall turn right climbing so as to cross 35°14'N, 86°47'W at 6000' MSL; then at 6000' MSL to 35°05'N, 86°38'W; then climb direct so as to cross 34°58'N, 86°30'W at 10,000' MSL or above; then climb direct so as to cross 34°43'N, 86°13'W at (026/71 NM DME fix of Birmingham, Alabama, VORTAC') at 15,000' MSL; then climb direct so as to cross 34°18'N, 86°30'W (025/43 NM DME fix of Birmingham, Alabama, VORTAC') at FL 220 or above; then climb direct so as to cross 34°09'N, 86°36'W (025/33 NM DME fix of Birmingham, Alabama, VORTAC') at FL 240.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after passing 35°24'N, 87°03'W, turn right and climb so as to cross 35°13'N, 86°55'W at 6000' MSL; then continue turn at 6000' MSL to 35°10'N, 87°01'W; then at 6000' MSL direct to 35°05'N, 87°46'W; then descend direct so as to cross 35°04'N, 87°56'W at 3000' MSL; then at 3000' MSL turn right to 35°10'N, 88°-06'W; then turn right descending so as to cross 35°17'-30'N, 87°59'W at 2200' MSL; then at 2200' MSL direct to 35°19'N, 87°47'W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 34°00'N, 90°00'W to 35°13'N, 88°39'W. During daylight hours, some VFR operations will be flown 500 feet above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800 feet above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during dayight hours.

Alternate Entry—Aircraft shall cross the 175/83 NM DME fix of the Memphis, Tennessee, VORTAC (33°39'N, 89°53'W) at FL 200 or as assiged by ARTC; then descend direct to 33°39'N, 89°22'W (158/86 NM DME fix of the Memphis VORTAC'); then continue descent direct so as to cross 33°50'N, 89°18'W at 10,000' MSL or below; then descend direct so as to cross 34°03'N, 89°12'W at 6000' MSL; then descend direct so as to cross 34°19'N, 89°12'W at 1700' MSL; then at 1700' MSL direct to 34°47'N, 89°11'W; then at 1700' MSL direct 35°05'N, 88°48'W; thence via the published route.

Route Width—The route width is reduced to 5 statute miles on either side of centerline from 33°55'N, 91°05'W to 35°24'N, 87°03'W.

Hours of Operation—24 hours daily, 7 days per week.

ARKANSAS/MISSOURI

•FIRE SALE

Effective April 1 thru September 25, 1965

(Received too late to prepare chart)

Aircraft shall cross the Farmington, Missouri, VOR-TAC' (37°40'24''N, 90°14'02''W) at FL 240, or as assigned by ARTC; then at FL 240, or assigned altitude, proceed via the 227° radial of the Farmington VORTAC direct to 37°29'N, 90°33'W (227/18 NM DME FIX);

then descend direct so as to cross 37°08′N, 91°07′W at 13,000′ MSL; then at 13,000′ MSL turn right to 37°07′N, 91°28′W; then turn right descending to 37°15′N, 91°38′W; then continue turn descending to 37°23′N, 91°28′W; then descend direct so as to cross 37°23′N, 91°13′W at 6000′ MSL; then descend direct so as to cross 37°23′N, 91°00′W at 3000′ MSL, then at 3000′ MSL direct to 37°22′N, 89°50′W; then at 3000′ MSL turn left to 37°32′N, 89°34′W; then descend direct so as to cross 37°35′N, 89°34′W at 2300′ MSL; then at 2300′ MSL direct to the route entry point at 37°39′N, 89°40′W; then at 2300′ MSL direct to 38°00′N, 90°10′W; then at 2400′ MSL direct to 38°08′N, 90°43′W; then at 2800′ MSL direct to 37°30′N, 91°30′W; then at 2800′ MSL direct to 37°13′N, 91°54′W; then at 2800′ MSL direct to 36°45′N, 91°39′W; then at 2500′ MSL direct to 36°26′N, 91°42′W; then at 2500′ MSL direct to 36°00′N, 91°33′W.

Short Look and Lay Down—After passing 36°00′N, 91°-33′W, aircraft shall maintain between 2000′ MSL and 3000′ MSL through the bomb run corridor (5 SM either side of centerline from 36°00′N, 91°33′W to 35°27′N, 91°22′W). After exiting the route at 35°27′N, 91°22′W, aircraft shall turn left and climb so as to cross or maintain 3000′ MSL to 35°23′N, 91°12′W; then at 3000′ MSL to 35°22′N, 90°54′W; then start climb so as to intercept the 159° radial of the Walnut Ridge VOR (35°30′N, 90°45′W) at 7000′ MSL; then climb via the inbound 159° radial of the Walnut Ridge VOR so as to cross the 28 NM fix (35°40′N, 90°48′W) at 11,000′ MSL or above; then via the 159° radial climb so as to cross the 19 NM fix (35°48′N, 90°51′W) at 14,000′ MSL; then at 14,000′ MSL via the 159° radial inbound and the 339° radial outbound direct to the 33 NM fix (36°39′N, 91°08′W); then start climb so as to cross 36°58′N, 90°51′W at FL 200; then climb so as to cross 37°04′N, 90°23′W (FAM 185/37) at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run, shall after passing 35°27′N, 91°22′W, turn right and climb so as to cross or maintain 3000′ MSL to 35°21′N, 91°24′W; continue turn and climb so as to cross 35°24′N, 91°34′W at 5000′ MSL; then at 5000′ MSL direct 36°24′N, 91°54′W; then turn right descending so as to cross 36°26′N, 91°42′W at 2500′ MSL; thence via the published route .

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 37°40′N, 91°18′W to 36°26′N, 91°42′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached during daylight hours.

Alternate Entry—Aircraft shall cross the Farmington, Missouri, VORTAC at FL 240, or as assigned by ARTC: maintain FL 240, or assigned altitude, via the Farmington VORTAC 227° radial to the 18 NM DME fix (37°29′N, 90°33′W); then descend direct so as to cross 37°08′N, 91°07′W at 13,000′ MSL; then at 13,000′ MSL turn left to 36°55′N, 91°08′W; then right turn descending so as to cross 36°26′N, 91°42′W at 2500′ MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM on both sides of the centerline from 37°39′N, 89°40′W to 38°00′N, 90°10′W, and on the north side of centerline from 38°00′N, 90°10′W, to 38°08′N, 90°43′W.

Hours of Operation—24 hours daily, 7 days per week.

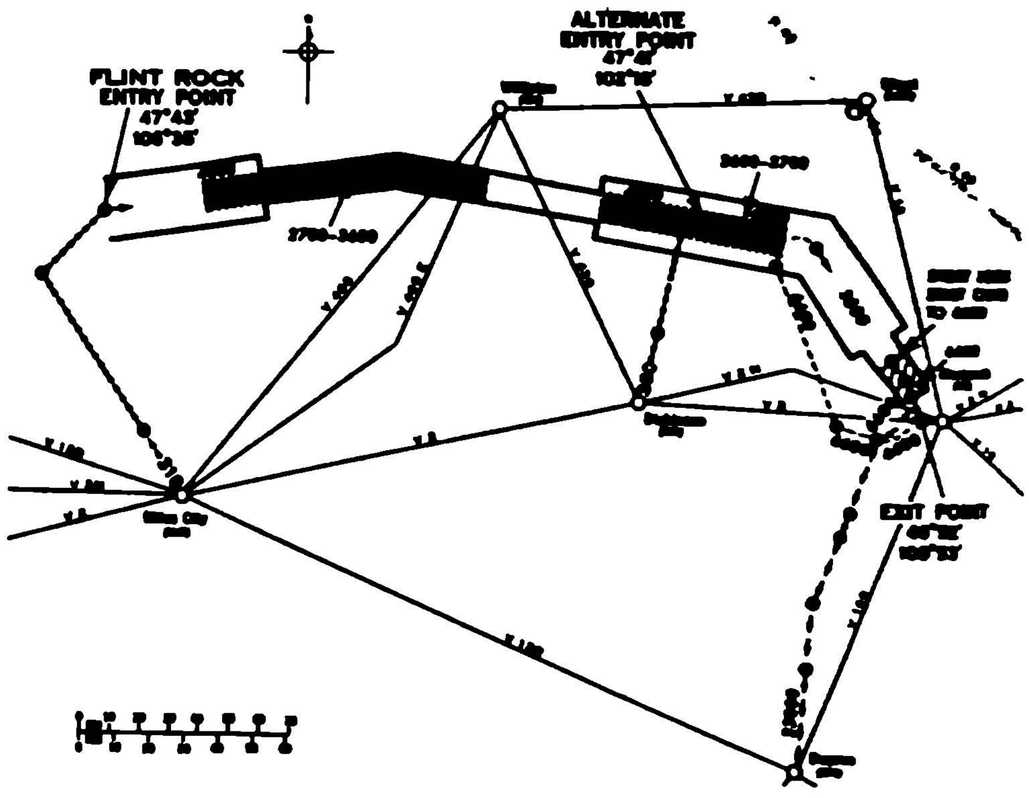
•FLINT ROCK

MONTANA/NORTH DAKOTA

Revised Effective June 14, 1964

Aircraft shall cross the Miles City, Montana VOR TAC (reporting point) at FL 230, or as assigned b ARTCC, and proceed via the 310° radial, maintainin FL 230 or as assigned, to 46°40′N, 106°14′W; the descend to cross 47°24′N, 107°00′W at or above 600 MSL; then continue descent so as to cross the rou entry point, 47°43′N, 106°35′W, at 4000′ MSL; then a 4000′ MSL direct 47°57′N, 104°30′W; then at 4000′ MS direct 47°35′N, 101°31′W; then descend to 3500′ MS direct 47°02′N, 101°02′W.

Short Look—After passing 47°02′N, 101°02′W aircra shall climb so as to cross 46°56′N, 100°56′W at 660 MSL; then at 6600′ MSL direct to the exit point 46°52′ 100°53′W (bomb run corridor 5 SM either side of cente line from 47°02′N, 101°02′W to the exit point 46°52′ 100°53′W); then maintaining 6600′ MSL turn rig direct 46°39′N, 101°07′W; then start climb to FL 2 direct to 45°53′N, 101°35′W; direct to Dupree VORTA climbing so as to cross 46°19′N, 101°19′W at or abo 11,000′ MSL, crossing 46°13′N, 101°23′W at or belo FL 190; crossing 45°53′N, 101°35′W at FL 210, and reach FL 230 at a point 30 nautical miles northeast the Dupree VORTAC.



Re-Entry—After completing the initial bomb run aircra that are scheduled to execute an aditional Short Loo bomb run shall, after passing 46°52′N, 100°53′W mai tain 6600′ MSL direct 46°39′N, 101°07′W; then at 660 MSL make a right turn direct to 46°43′N, 101°24′W then at 6600′ MSL direct 47°30′N, 101°49′W; then right decending turn so as to reenter the route at 47 35′N, 101°31′W at 3500′ MSL, thence via the publishe route.

VFR and Contour—If the encountered weather condition along the route are equal to or better than ceiling 3000 visibility 5 miles, the pilot may descend VFR and ope ate between the VFR altitudes indicated on the cha between the following points: From 47°48′N, 105°53′V to 47°53′N, 103°53′W and from 47°47′N, 103°03′W t 47°37′N, 101°45′W. During daylight hours some VFI operations will be flown 800′ above the immediate ter rain. VFR operations will not be conducted during th hours of darkness. The lower VFR altitude shown o the chart is the minimum altitude that will be reached o each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Dickinson, No Dakota VORTAC (reporting point) at 15,000′ MSL o

s assigned by ARTCC; then proceed via the 360° radial f Dickinson VORTAC at 15,000′ MSL, or assigned flight vel/altitude, direct to a point 20 NM north of the ickinson VORTAC; then descend so as to cross 47°42′-)′N, 102°27′W at 6000′ MSL; then a descending right rn so as to cross 47°41′N, 102°18′W at 4000′ MSL, ence via the published route.

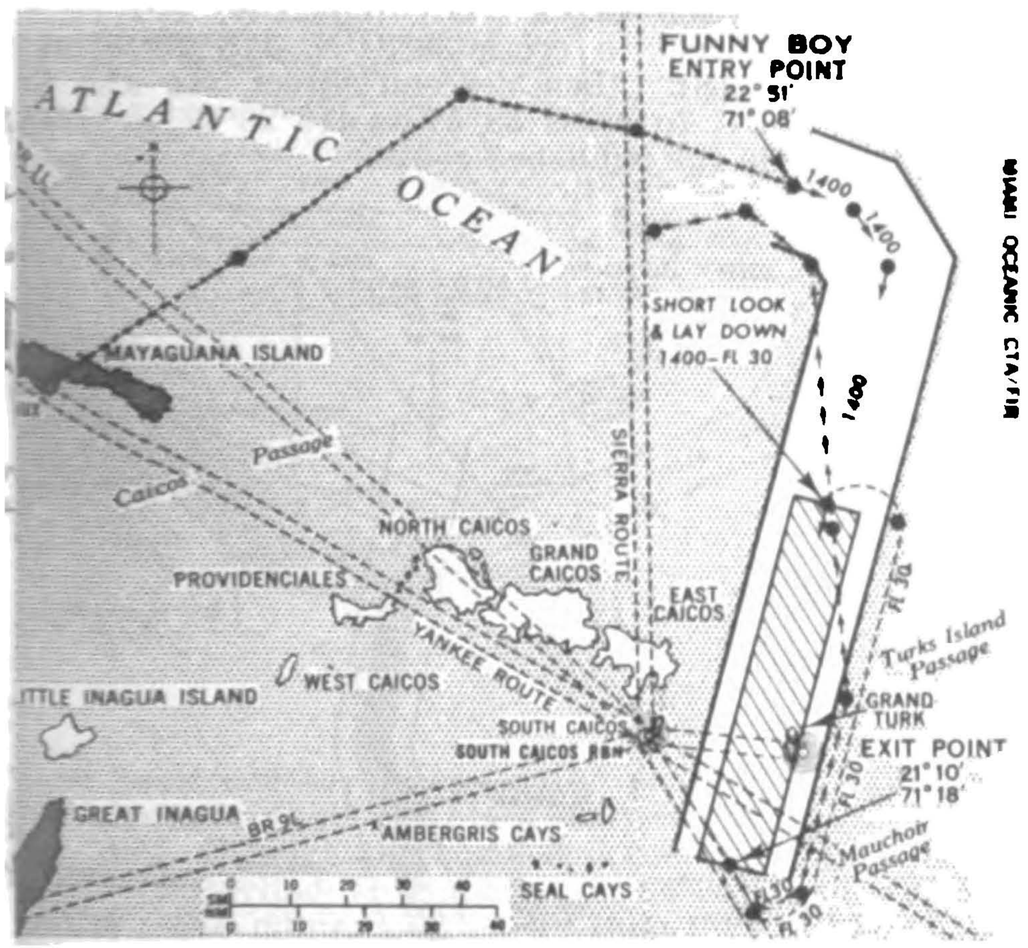
Route Width—The route width is reduced to 5 SM on ther side of centerline from 47°50′N, 105°30′W to 47°-′N, 103°03′W and from 47°07′N, 101°06′W to 46°52′N, 0°53′W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

•FUNNY BOY

Revised Effective March 4, 1965

Aircraft shall cross 22°23′N, 73°02′W (Mayaguana FB) at FL 270 or as assigned; maintain FL 270 or as signed 22°41′N, 72°35′W (reporting point); start de-ent, cross 23°05′N, 72°00′W at FL 150; right turn, oss 23°00′N, 71°33′W at FL 90 or below; cross 22°51′N, °08′W at 1400′ MSL (the route entry point); maintain 00′ MSL direct 22°48′N, 70°58′W; turn right to °39′N, 70°53′W; direct 22°04′N, 71°03′W.



Short Look and Lay Down—After passing 22°04′N, 71°-′W, aircraft shall maintain between 1400′ and FL 30 rough the bomb run corridor (5 SM either side of cen-line from 22°04′N, 71°03′W to 21°10′N, 71°18′W). ter exiting the route at 21°10′N, 71°18′W, aircraft all turn left, cross 21°03′N, 71°14′W at FL 30; main-in FL 30 to 21°06′N, 71°08′W, direct 21°35′N, 71°00′W; art climb, cross 22°00′N, 71°02′W at FL 110 or above ss 22°40′N, 71°06′W at FL 250 or above; left turn to °48′N, 71°16′W; cross 22°45′N, 71°30′W at FL 290 or assigned.

Re-Entry—After completing the initial bomb run, air-aft scheduled to execute an additional bomb run shall, ter exiting the low level route at 21°10′N, 71°18′W, rn left cross 21°03′N, 71°14′W at FL 30; maintain FL to 21°06′N, 71°08′W; direct 22°01′N, 70°53′W; turn t descend to cross 22°04′N, 71°03′W at 1400′; thence the published route.

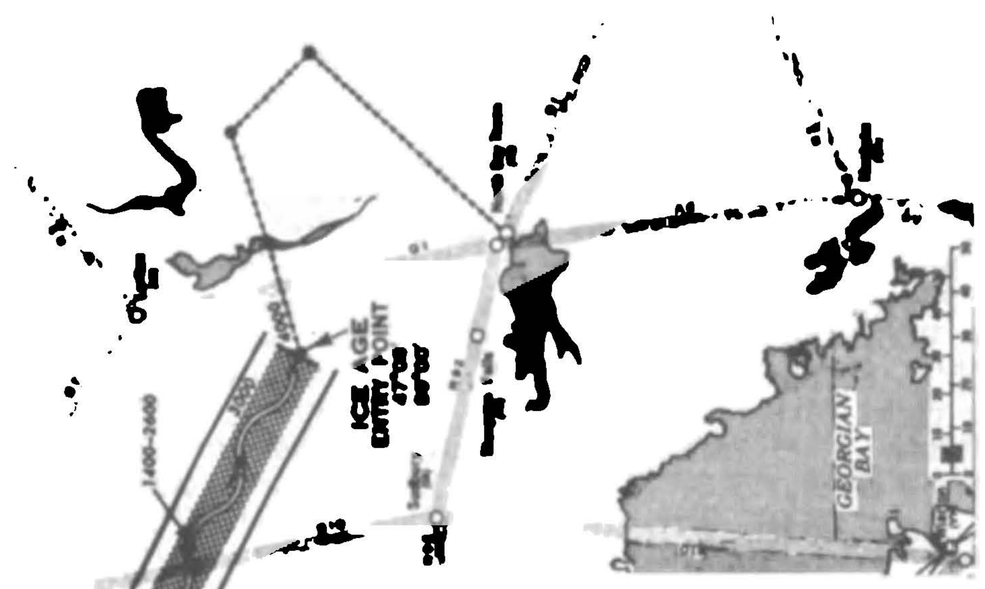
Hours of Operation—0000Z to 2359Z Monday through turday.

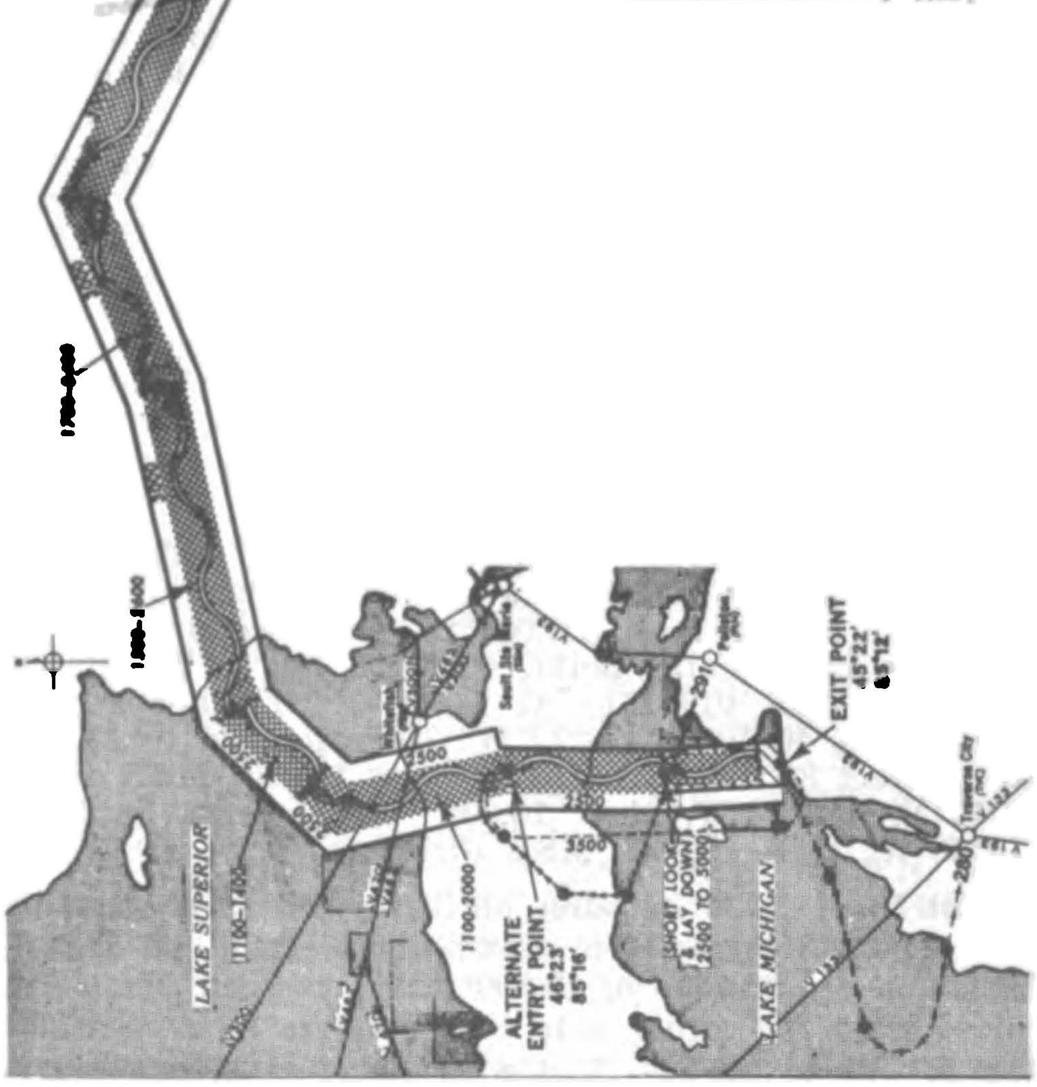
MICHIGAN/ONTARIO, CAN.

ICE AGE

Revised Effective September 6, 1964

Start descent over North Bay Ont. TACAN from FL 250 or as otherwise assigned to 17,000′ MSL direct 47°-04′N, 78°25′W, descend to 10,000′ MSL direct to 47°22′N, 78°49′W, descend to 4000′ MSL direct to 47°15′N, 79°-25′W, maintain 4000′ MSL direct to low level entry point at 47°08′N, 80°00′W (aircraft shall maintain an altitude below 3500′ AGL on the low level route while in Canadian airspace), descend so as to cross 47°22′N, 80°35′W at 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, 82°15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, then at 3000′ MSL direct 47°23′N, 85°00′W, then descend direct 47°06′N, 85°22′W at 2500′ MSL (termination of Canadian portion of route). Aircraft shall enter the U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct 47°00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W at 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.





Short Look and Lay Down—After passing 45°48′N, 85°-15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°-

12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at FL 210. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W turn right climbing so as to cross 45°21′N, 85°32′W at 3,500′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°-37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°08′N, 80°00′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30′′N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 5 statute miles east of centerline from 46°23′N, 85°16′W to 45°-22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

LITTLE SATIN

Revised Effective May 3, 1964

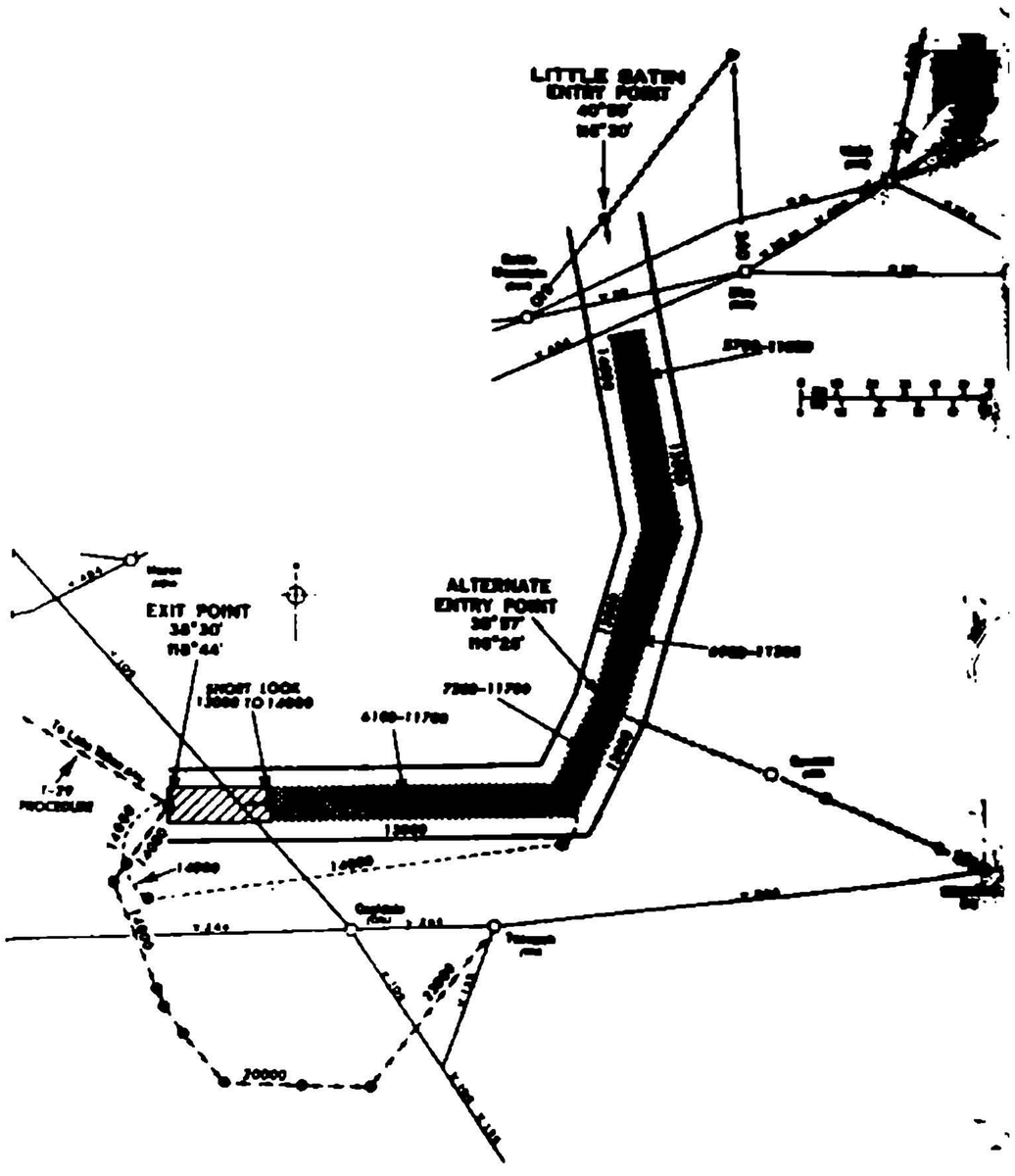
Aircraft shall cross 41°40′N, 115°49′W (Elko VOR-TAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 019°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, 116°40′W, then 13,000′ MSL direct 38°31′N, 118°12′W.

Short Look—After passing 38°31′N, 118°12′W aircraft shall operate between a maximum altitude of 14,000′ MSL and a minimum of 13,000′ MSL thru the bomb run corridor (5 SM either side of centerline from 38°31′N, 118°12′ W to 38°30′ N, 118°44′ W). After exiting the route at 38°30′N, 118°44′W aircraft shall maintain 14,000′ MSL direct 38°10′N, 119°00′W, then 14,000′ MSL direct 37°43′N, 118°46′W (reporting point "Little Satin 2"); then climb direct to cross 37°40′N, 118°43′W at or above 14,300′ MSL and 37°33′N, 118°37′W at or above 15,000′ MSL; then climb to FL 200 direct 37°21′N, 118°25′W, then FL 200 direct to 37°21′N, 118°00′W (reporting point "Little Satin 3"); then climb direct to cross 37°21′N, 117°40′W at FL 230, then Fl 230 direct to Tonopah, Nev. VOR.

Re-Entry—After completing the initial bomb run aircraf that are scheduled to execute an additional bomb ru shall, after exiting the route at 38°30′N, 118°44′W, main tain 14,000′ MSL direct 38°15′N, 118°57′W, then 14,000 direct 38°06′N, 118°50′W (reporting point "Little Satl 1"), then 14,000′ MSL direct 38°23′N, 116°40′W; the descend to 13,000′ MSL direct to re-enter the route a 38°34′N, 116°40′W, thence via the published route.

VFR and Contour—If the encountered weather condition along the route are equal to or better than ceiling 300 visibility 5 miles, the pilot may descend VFR and ope ate between the VFR altitudes indicated on the cha between the following points: From 40°30′N, 116°22′ to 38°31′N, 118°12′W. During daylight hours some VF operations will be flown 800′ above the immediate terrai VFR operations will not be conducted during the hou of darkness. The lower VFR altitude shown on the cha is the minimum altitude that will be reached on eac route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Wilson Cree Nevada VOR (reporting point) at FL 230 or as a signed by ARTCC, then maintain assigned flight lev via the Wilson Creek VOR 277° radial until 15 NM nort west of the Wilson Creek VOR (38°21′N, 114°41′W) then descend direct to cross 38°34′N, 115°18′W at o below 15,000′ MSL; then descend direct via the Cu rant, Nev. VOR to cross 38°57′N, 116°26′W at 13,00 MSL, thence via the published route.



I–29 Procedure—Aircraft shall cross Wilson Creek Nevada, VOR (38°15′N, 114°23′W) (reporting point) a assigned by the ARTCC; then proceed via alternate entr route to 38°30′N, 118°44′W exit point of the bomb ru corridor; then climb to 14,000′ MSL or as assigned b the ARTCC direct Lake Tahoe, California, VOR (39°1 N, 120°16′W).

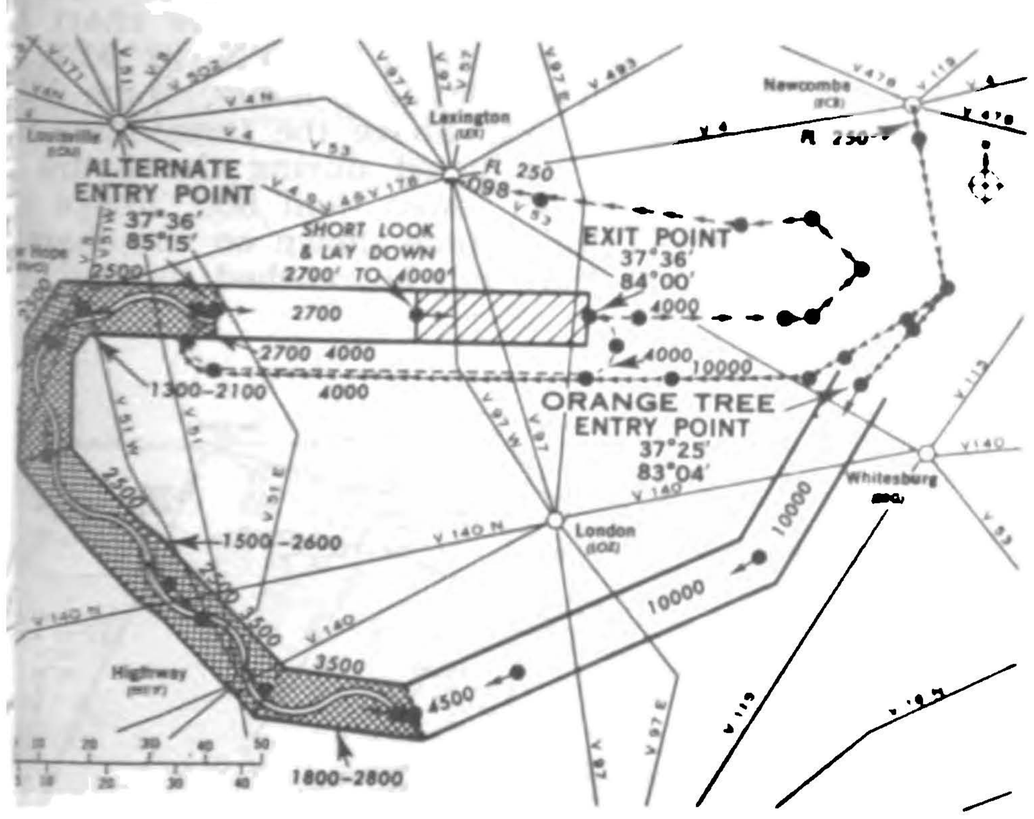
Hours of Operation—24 hours daily, 7 days a week.

KENTUCKY/TENNESSEE

ORANGE TREE

Revised Effective November 1, 1964

Aircraft shall cross the Newcomb, Kentucky VOR at L 250; maintain FL 250 direct 38°05'N, 82°53'W; ien start descend so as to cross 37°41'N, 82°48'W at 7,000' MSL; cross 37°34'N, 82°55'W at 14,000' MSL; ien continue descent so as to cross the route entry oint at 37°25'N, 83°04'W at 10,000' MSL, then at 10,000' SL direct 36°57'N, 83°25'W, then at 10,000' MSL direct 3°38'N, 84°13'W; then start descent so as to cross 36°- 1'N, 84°33'W at 4500' MSL; then descend so as to cross 3°31'N, 84°36'W at 3500' MSL, then at 3500' MSL direct 3°34'N, 85°03'W, then at 3500' MSL direct 36°46'N, 5°16'W; then descend so as to cross 36°51'N, 85°22'W 2500' MSL, then at 2500' MSL direct 37°11'N, 85°- 'W, then at 2500' MSL direct 37°30'N, 85°46'W, then 2500' MSL turn right to 37°35'N, 85°42'W, then at 00' MSL direct 37°36'N, 85°17'W; then climb so as to oss 37°36'N, 85°15'W at 2700' MSL, then at 2700' MSL rect to 37°36'N, 84°35'W.



Short Look and Lay Down—After passing 37°36'N, 84°- 'W aircraft shall maintain between 2700' MSL and 00' MSL through the bomb run corridor (5 SM either le of centerline from 37°36'N, 84°35'W to 37°36'N, °00'W; the minimum IFR altitude thru the bomb run rridor is 2700' MSL). After exiting the route at 37°- 'N, 84°00'W aircraft shall cross 37°36'N, 83°50'W at 00' MSL; then at 4000' MSL direct 37°36'N, 83°20'W; en start climb direct 37°36'N, 83°15'W; cross 37°44'N, °05'W at or below 9000' MSL; continue climb direct °52'N, 83°15'W; then climbing direct so as to cross °51'N, 83°30'W at or below 17,000' MSL; then via the xington VORTAC 098° radial climbing so as to cross °56'N, 84°11'W (Lexington VORTAC 098/14) at FL 0, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run aircraft at are scheduled to execute an additional bomb run all, after exiting the route at 37°36'N, 84°00'W, turn ght so as to cross 37°31'N, 83°55'W at 4000' MSL, en at 4000' MSL continue right turn to 37°26'N, 84°- 'W, then at 4000' MSL direct 37°26'N, 85°15'W; then rn right descending so as to cross 37°31'N, 85°20'W 2700' MSL, then at 2700' MSL continue right turn to °36'N, 85°15'W, thence via the "ORANGE TREE" ute.

VFR and Contour—If the encountered weather conditions ong the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 36°31'N, 84°33'W to 37°36'N, 85°15'W. During daylight hours some VFR operations will be flown 800' above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Newcomb, Ky. VOR at FL 250, then at FL 250 direct 38°05'N, 82°53'W; then start descent so as to cross 37°41'N, 82°48'W at 17,000' MSL; cross 37°35'N, 82°56'W at 14,000' MSL; cross 37°29'N, 83°08'W at 10,000' MSL; then at 10,000' MSL direct 37°26'N, 83°15'W; direct 37°26'N, 83°42'W; then start descent so as to cross 37°26'N, 84°00'W at 4000' MSL; then at 4000' MSL direct to 37°26'N, 85°-15'W; then turn right descending so as to cross 37°31'N, 85°20'W at 2700' MSL; then at 2700' MSL direct to 37°36'N, 85°15'W; thence via the established route.

Route Width—The route width is reduced to 5 statute miles on either side of centerline throughout the entire route.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

COLORADO/NEBRASKA/WYOMING

POOL SHARK

Effective January 4, 1965 through June 26, 1965

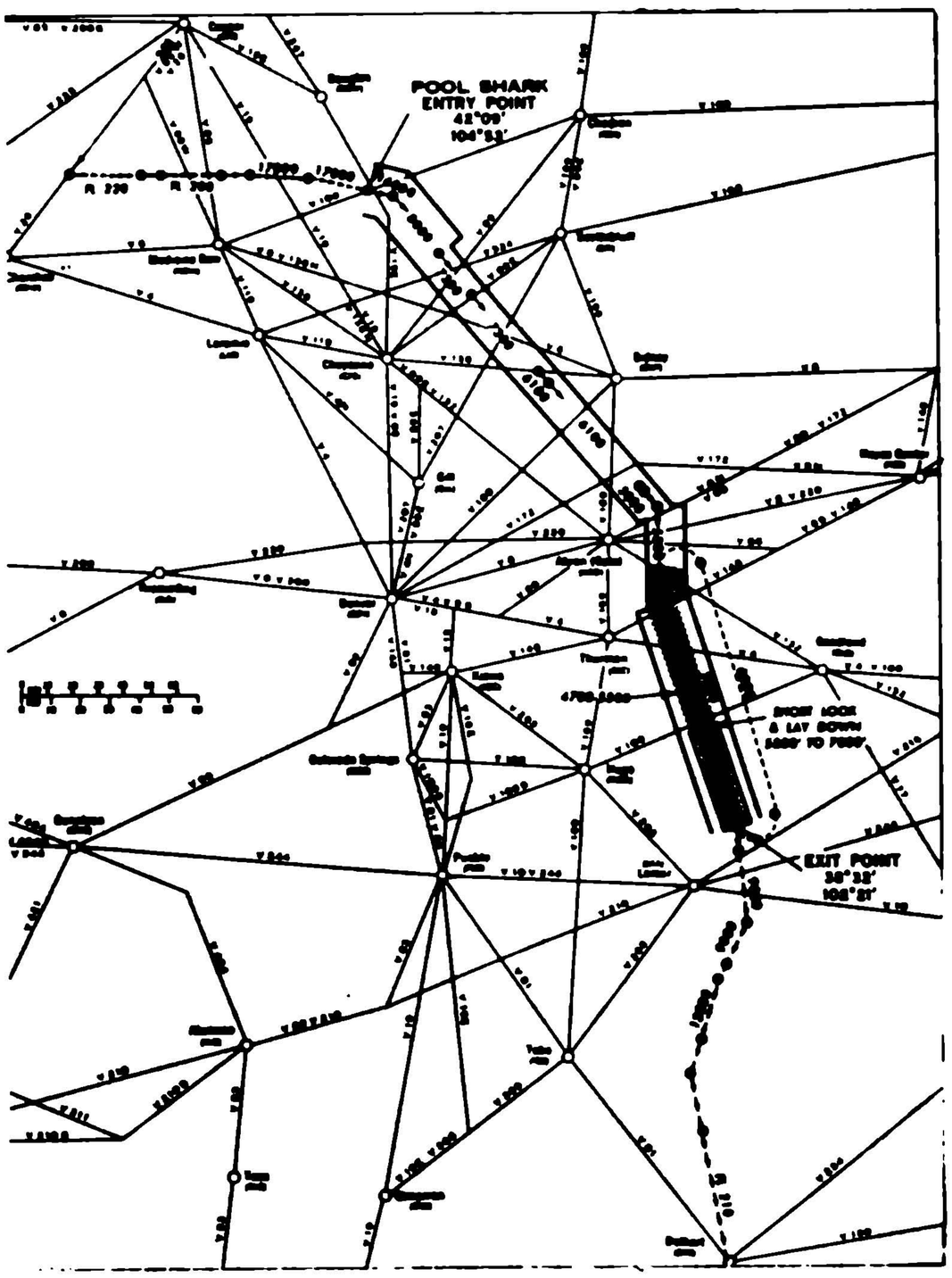
Aircraft shall cross 42°14'N, 107°07'W (Casper, Wyoming, VORTAC 201/63) at FL 220; then direct 42°14'N, 106°35'W; then descend direct to cross 42°14'N, 106°26'W at FL 200; then maintain FL 200 direct 42°-14'N, 105°59'W; then descend direct to cross 42°14'N, 105°46'W at 17,000' MSL; then maintain 17,000' MSL direct 42°13'N, 105°20'W, then maintain 17,000' MSL direct to the route entry point at 42°09'N, 104°53'W, then descend direct to cross 42°07'N, 104°42'W at 16,000' MSL; then descend direct to cross 41°47'N, 104°22'W at 8000' MSL; then descend direct to cross 41°33'N, 104°-08'W at 7300' MSL; then direct 41°07'N, 103°39'W; then descend direct to cross 41°03'N, 103°35'W at 6100' MSL; then 6100' MSL direct to 40°27'N, 102°57'W then descend direct so as to cross 40°25'N, 102°55'W at 5800' MSL then at 5800' MSL direct to 40°20'N, 102°49'W; then 5800' MSL direct 39°47'N, 102°49'W; then 5800' MSL direct 39°05'N, 102°33'W.

Short Look and Lay Down—After passing 39°05'N, 102°-33'W, aircraft shall maintain between 5800' MSL and 7000' MSL through the bomb run corridor (5 SM either side of centerline from 39°05'N, 102°33'W to 38°32'N, 102°21'W). After exiting the route at 38°32'N, 102°-21'W; aircraft shall climb direct to cross 38°24'N, 102°-20'W at 9000' MSL; then maintain 9000' MSL direct 37°59'N, 102°18'W; then 9000' MSL direct 37°45'N, 102°27'W; then climb direct to cross 37°40'N, 102°31'W at 12,000' MSL; then 12,000' MSL direct 37°20'N, 102°-39'W; then climb direct to cross 37°09'N, 102°44'W at or above 16,000' MSL; then climb direct to cross 36°-49'N, 102°40'W at FL 210; then maintain FL 210 direct to Dalhart, Texas, VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°32'N, 102°21'W, turn left to cross 38°35'N, 102°04'W at 6000' MSL; then 6000' MSL direct to 40°00'N, 102°31'W; then turn left to cross 40°00'N, 102°49'W at 5800' MSL, thence via the published route.

Alternate Entry—None.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart bewteen the following points 40°00'N, 102°49'W to 38°-32'N, 102°21'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.



Route Width—The route width is reduced to 5 SM on the NE side of the centerline from 41°47'N, 104°22'W to 40°20'N, 102°49'W, and to 5 SM on the west side of centerline from 40°20'N, 102°49'W to 39°47'N, 102°49'W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

SEA HORSE

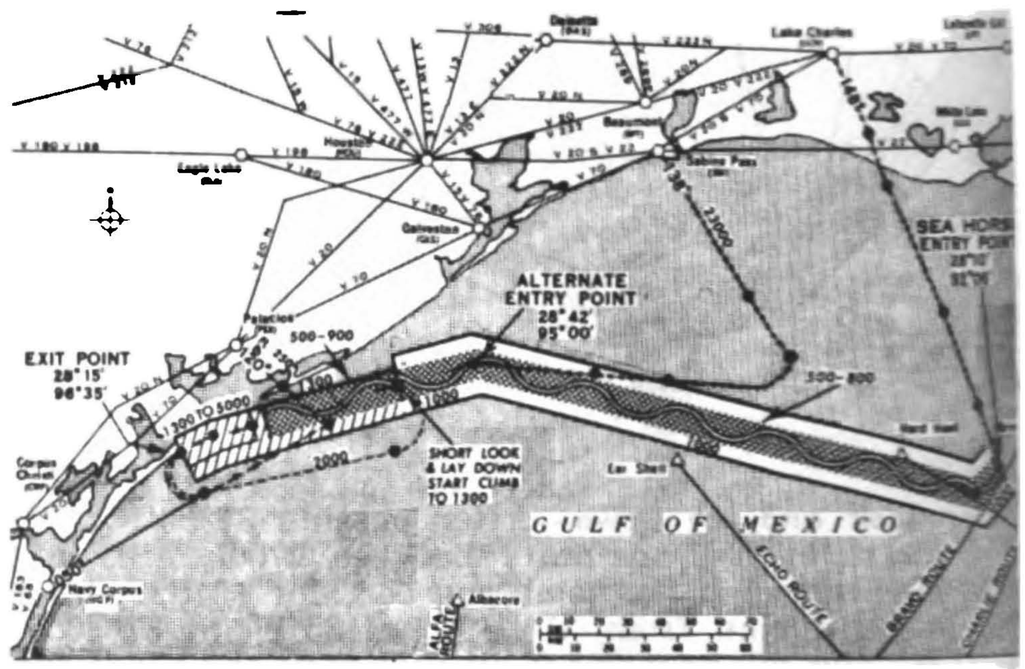
Revised Effective July 12, 1964

Aircraft shall cross the Lake Charles, La., VOR at 23,000' MSL, or as assigned; maintain 23,000' MSL or as assigned via the Lake Charles VOR 148° radial to to 25 NM fix; start descent, cross 29°31'N, 92°47'W at 19,000' MSL, descend direct to cross 28°55'N, 92°28'W at 15,000' MSL, descend direct to cross 28°28'N, 92°15'W at 8000' MSL or below, descend direct to cross 28°10'N, 92°06'W at 1000' MSL (Low level entry point). Maintain 1000' MSL, turn right to 28°03'N, 92°16'W, direct to 28°42'N, 95°00'W, direct to 28°35'N, 95°25'W.

Short Look and Lay Down—After passing 28°35'N, 95°-25'W climb to 1300' MSL direct 28°23'N, 96°12'W. After passing 28°23'N, 96°12'W aircraft shall maintain be tween 1300' and 5000' MSL through the bomb run cor ridor (5 SM either side of centerline from 28°23'N 96°12'W direct 28°20'N, 96°25'W direct 28°15'N, 96 35'W). (The minimum IFR altitude through the bom run corridor is 1300' MSL) to 28°15'N, 96°35'W, th route exit point, turn left to intercept the Navy Corpu VOR 050 radial (reporting point); then climb via th Navy Corpus VOR 050 radial to intercept the Palacio Texas VOR 120 radial at 18,000' MSL or above. Clim via the Palacois VOR 120 radial so as to reach FL 25 at a point 18 NM southeast of the Palacios VOR, cro the Palacios VOR at FL 250.

Re-Entry—After completing the initial Short Look bom run, aircraft that are scheduled to execute an additiona bomb run shall, after exiting the route at 28°15'N, 96° 35'W turn left to intercept the Navy Corpus VOR 050 radial at 2000' MSL, maintain 2000' MSL direct 28° 22'N, 95°26'W; turn left descending so as to cross 28° 35'N, 95°25'W at 1300' MSL, thence via the publishe route.

VFR and Contour—If the encountered weather condition along the route are equal to or better than ceiling 3000 visibility 5 miles, the pilot may descend VFR and operat between the VFR altitudes indicated on the chart b tween the following points: From 28°10'N, 92°06'W t 28°24'N, 96°09'W. During daylight hours, some VF operations will be flown 500' above the immediate te rain. VFR operations conducted during the hours o darkness will not be flown lower than 800' above th terrain. The lower VFR altitude shown on the chart i the minimum altitude that will be reached during da light hours.



Alternate Entry—Aircraft shall cross the Sabine Pas VOR at FL 230 or as assigned, then via Sabine Pas VOR 138° radial maintaining FL 230 until the 47 N fix (29°02'N, 93°33'W). Start descent direct to cro 28°44'N, 93°19'W at 16,000' MSL turn right, descend t cross 28°37'N, 93°58'W at 4000' MSL; descend direc to cross 28°39'N, 94°21'W at 1000' MSL direct 28°42'N 95°00'W thence via published route.

Route Width—The route width is reduced to 5 SM nort of the centerline from 28°35'N, 95°25'W to 28°15'N 96°35'W.

Hours of Operation—24 hours daily, seven days per week

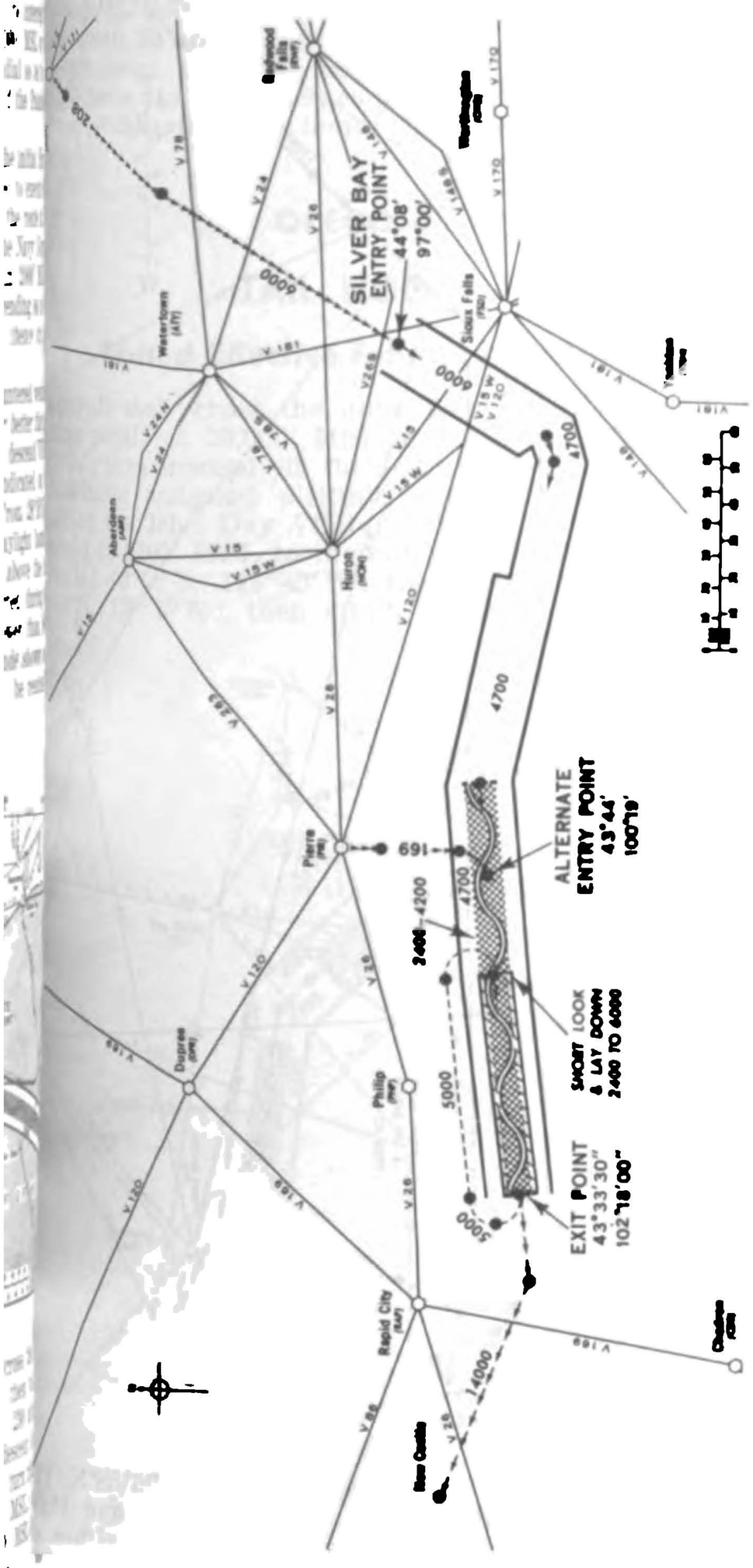
SOUTH DAKOTA

SILVER BAY

Effective October 18, 1964

Aircraft shall cross the Alexandria, Minn. VOR a FL 200 or as assigned by ARTCC and proceed via th

exandria VOR 208° radial **maintaining FL 200** or signed altitude until 10 NM **SW**; **then descend direct** as to cross 45°10′N, 96°00′**W at 6000′ MSL**; then at 00′ MSL direct 44°08′N, **97°00′W** (low level entry int); then at 6000′ **MSL** direct **43°29′N, 97°35′W**; then rn right descending so **as to cross 43°27′N, 97°45′W at** 00′ MSL; then at 4700′ **MSL direct 43°47′N, 99°45′W**; n at 4700′ MSL **direct to 43°42′N, 100°56′W.**



Short Look and Lay Down—After passing 43°42′N, 100°-W, aircraft shall maintain between 2400′ MSL and 0′ MSL through the bomb run corridor (5 SM either e of centerline from 43°42′N, 100°56′W to 43°33′-N, 102°18′W). The minimum IFR altitude through corridor is 4700′ MSL. After exiting the route at 33′30″N, 102°18′W aircraft shall climb so as to cross 30′N, 102°50′W at 14,000′ MSL; then at 14,000′ MSL ect to 43°51′N, 104°13′W. (New Castle, Wyoming)

Re-Entry—After completing the initial bomb run aircraft t are scheduled to execute an additional bomb run ll after exiting the route at 43°33′30″N, 102°18′W turn right and climb or descend so as to cross 43°40′N, 102°29′W, at 5000′ MSL; then at 5000′ MSL continue turn to 43°47′N, 102°20′W; then at 5000′ MSL direct 43°55′N, 100°58′W; then turn right descending so as to intercept the Silver Bay route at 43°42′N, 100°56′W at 4700′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 43°47′N, 99°45′W to 43°33′30″N, 102°18′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operation conducted during the hours of darkness will not be flonw lower than 800′ above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pierre, South Dakota VOR (reporting point) at 15,000′ MSL or below as assigned by ARTCC; then proceed via the Pierre VOR 169° radial maintaining 15,000′ MSL or assigned altitude until 10 NM south (44°13′N, 100°10′W); then descend direct to 43°52′N, 100°10′W; then turn right descending so as to cross 43°44′N, 100°19′W at 4700′ MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM north of centerline between 43°29′N, 97°35′W to 43°35′N, 98°-30′W.

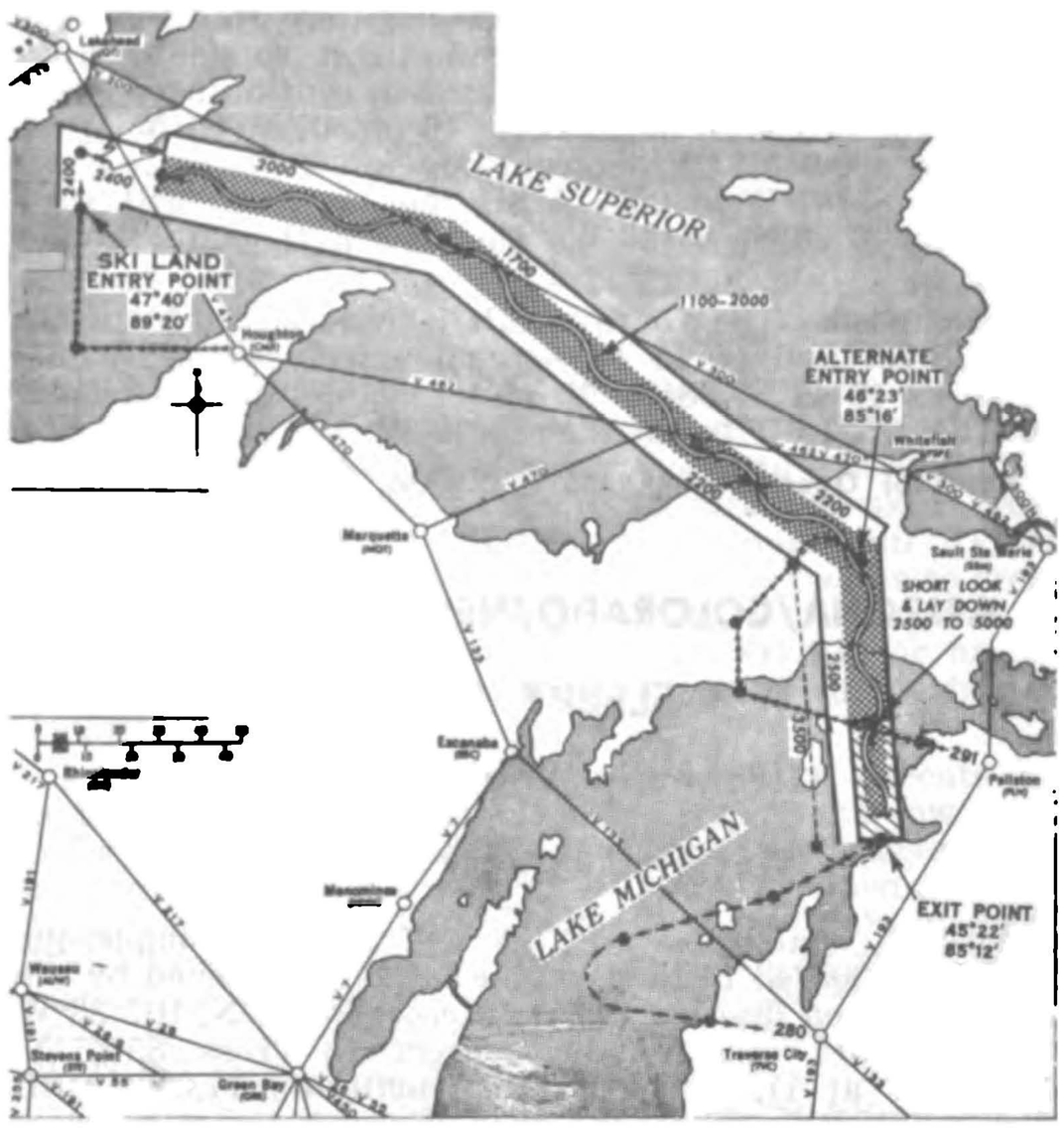
Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND

Effective September 6, 1964

Aircraft shall cross the Houghton, Michigan VOR at 20,000′ MSL or as assigned by ARTCC; then descend direct so as to cross 47°10′N, 89°20′W at 11,000′ MSL;



then turn right continuing descent so as to cross the route entry point at 47°40′N, 89°20′W at 2400′ MSL, then at 2400′ MSL direct 47°52′′N, 89°20′W, then at 2400′ MSL direct 47°48′N, 88°55′W; then descend to 2000′

MSL direct 47°35′N, 87°25′W; then descend to 1700′ MSL direct 46°49′N, 86°06′W; then climb so as to cross 46°42′N, 85°52′W at 2200′MSL, then at 2200′ MSL direct 46°23′N, 85°16′W; then climb to 2500′ MSL direct 45°-48′N, 85°15′W.

Short Look and Lay Down—After passing 45°48′N, 85°15′W aircraft shall maintain between 2500′ MSL and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°-12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at 21,000′ MSL. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W, turn right climbing so as to cross 45°21′N, 85°32′W at 3500′ MSL, then at 3500′ MSL direct to 46°23′N, 85°37′W; then turn right descending so as to cross 46°23′N, 85°-16′W at 2500′ MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 88°55′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000′ MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000′ MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30″N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 5 statute miles west and north of centerline from 47°40′N, 89°-20′W to 47°48′N, 88°55′W, and east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

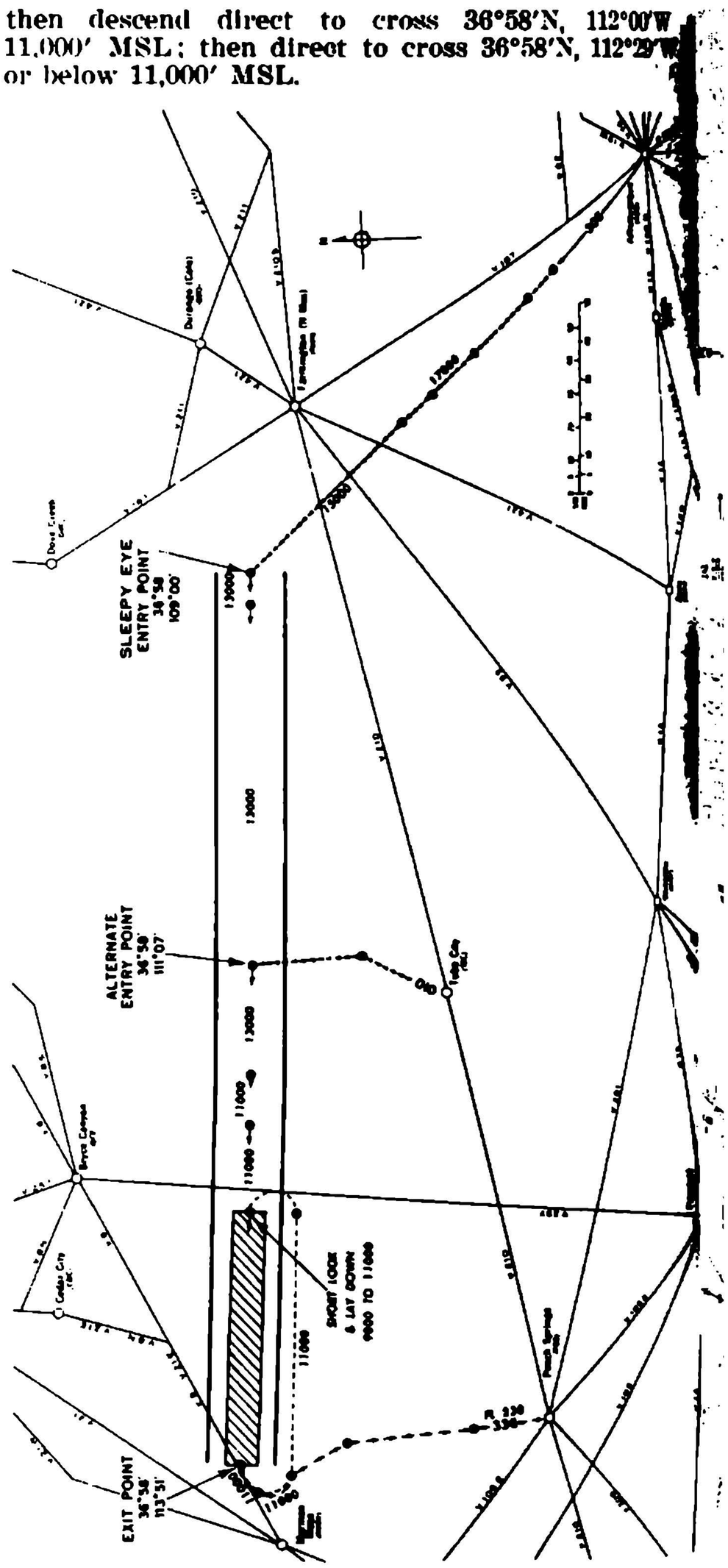
ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE

(Formerly "Main Gate")

Effective February 4, 1965

Aircraft shall cross 35°34′N, 107°24′W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42′N, 107°33′W at FL 210; then descend direct to cross 35°57′N, 107°51′W at 17,000′ MSL; then maintain 17,000′ MSL direct 36°09′N, 108°04′W; then descend direct to cross 36°16′N, 108°12′W at 15,000′ MSL; then 15,000′ MSL direct 36°58′N, 109°00′W (low level entry point); then descend direct to cross 36°58′N, 109°10′W at 13,000′ MSL; then 13,000′ MSL direct 36°58′N, 111°42′W; then descend direct to cross 36°58′N, 112°00′W 11,000′ MSL; then direct to cross 36°58′N, 112°29′W or below 11,000′ MSL.



Short Look and Lay Down—After passing 36°58′N, 112°29′W aircraft shall operate between 9,000′ and 11,000′ MSL through the bomb run corridor (5 SM either side of centerline from 36°58′N, 112°29′W to 36°58′N, 113°51′W). After exiting the route at 36°58′N, 113°51′W aircraft shall turn left climbing to cross 36°53′N, 114°00′W at 11,000′ MSL; then maintain 11,000′ MSL direct to 36°44′N, 113°53′W; then climb via direct to cross 36°30′N, 113°42′W at or below 17,000′ MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°58′N, 113°36′W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37′30″N, 113°32′W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58′N, 113°51′W

m left via direct to cross 36°53′N, 114°00′W at 11,000 SL; then 11,000′ MSL direct 36°44′N, 113°53′W; then ,000′ MSL direct 36°44′N, 112°29′W; then turn left ect to cross 36°58′N, 112°29′W at or below 11,000′ SL; thence via published route.

Alternate Entry—Aircraft shall cross the Tuba City, rizona VOR (36°07′30″N, 111°16′W) (Reporting int) at FL 240 or as asigned by the ARTCC; then intain FL 240 or assigned altitude via Tuba City 010 dial until 23 miles north (36°28′N, 111°04′W); then scend direct to cross 36°58′N, 111°07′W at 13,000′ SL; thence via published route.

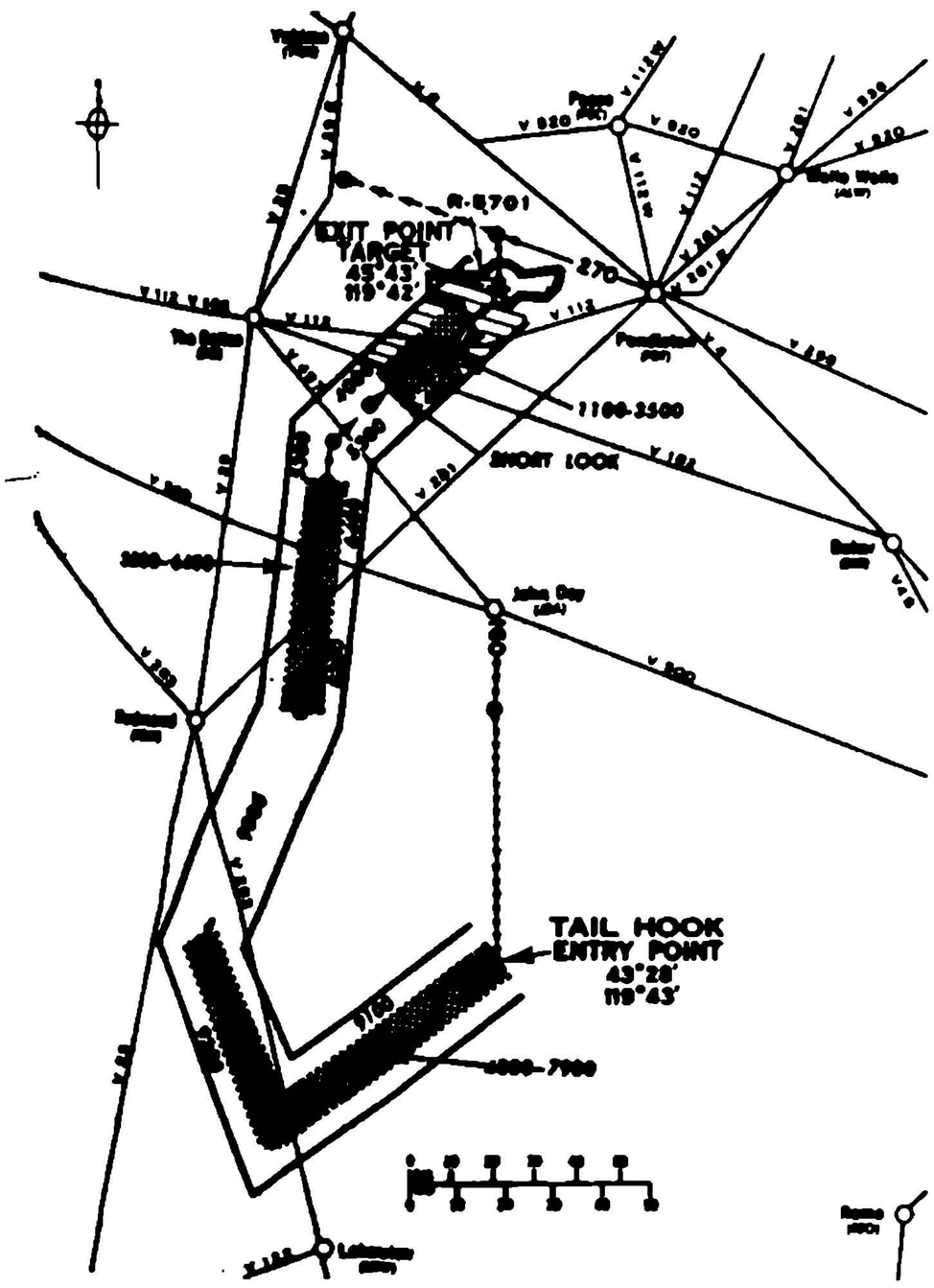
Hours of Operation—24 hours daily, 7 days a week.

OREGON

TAIL HOOK

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000′ MSL, or as assigned by Seattle ARTCC; then proceed via the John Day VOR 160° radial, maintaining assigned altitude until 20 nautical miles uth of the John Day VOR (44°19′N, 119°43′W); then scend to 9100′ MSL to the entry point of the low level ute at 43°28′N, 119°43′W; then 9100′ MSL direct to °54′N, 120°45′W; then climb to 9200′ MSL direct to



°31′N, 121°08′W; then descend to 9000′ MSL direct to °18′N, 120°39′W; then descend to 8300′ MSL direct 44°40′N, 120°36′W; then descend to 6400′ MSL direct 45°05′N, 120°31′W; then descend to 5300′ MSL direct 45°13′N, 120°30′W; then 5300′ MSL direct to 45°20′N, 0°19′W; then descend so as to cross 45°23′N, 120°13′W 4000′ MSL.

Short Look—After passing 45°23′N, 120°13′W, aircraft shall maintain 4000′ MSL until within Restricted Area R-5701; after crossing RBS target located at 45°43′N, 119°42′W, the route exit point, aircraft shall make a climbing left turn so as to intercept the Pendleton, Oregon VORTAC 270° radial 34 nautical mile fix (reporting point) at or above 11,000′ MSL; then climb westbound on the Pendleton VORTAC 270° radial so as to cross the Pendleton VORTAC 270° radial 68 nautical mile fix at 23,000′ MSL.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility five miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 43°28′N, 119°43′W to 43°31′N, 121°08′W, from 44°18′N, 120°39′W to 45°05′N, 120°31′W, and from 45°23′N, 120°13′W to restricted area R-5701. During daylight hours, VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness shall not be flown lower than 800′ above terrain. The lower VFR altitude shown on the chart is the minimum altitude that shall be reached on each route segment during daylight hours.

Hours of Operation—1600Z to 2400Z Monday thru Friday and 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE

Revised Effective January 4, 1965

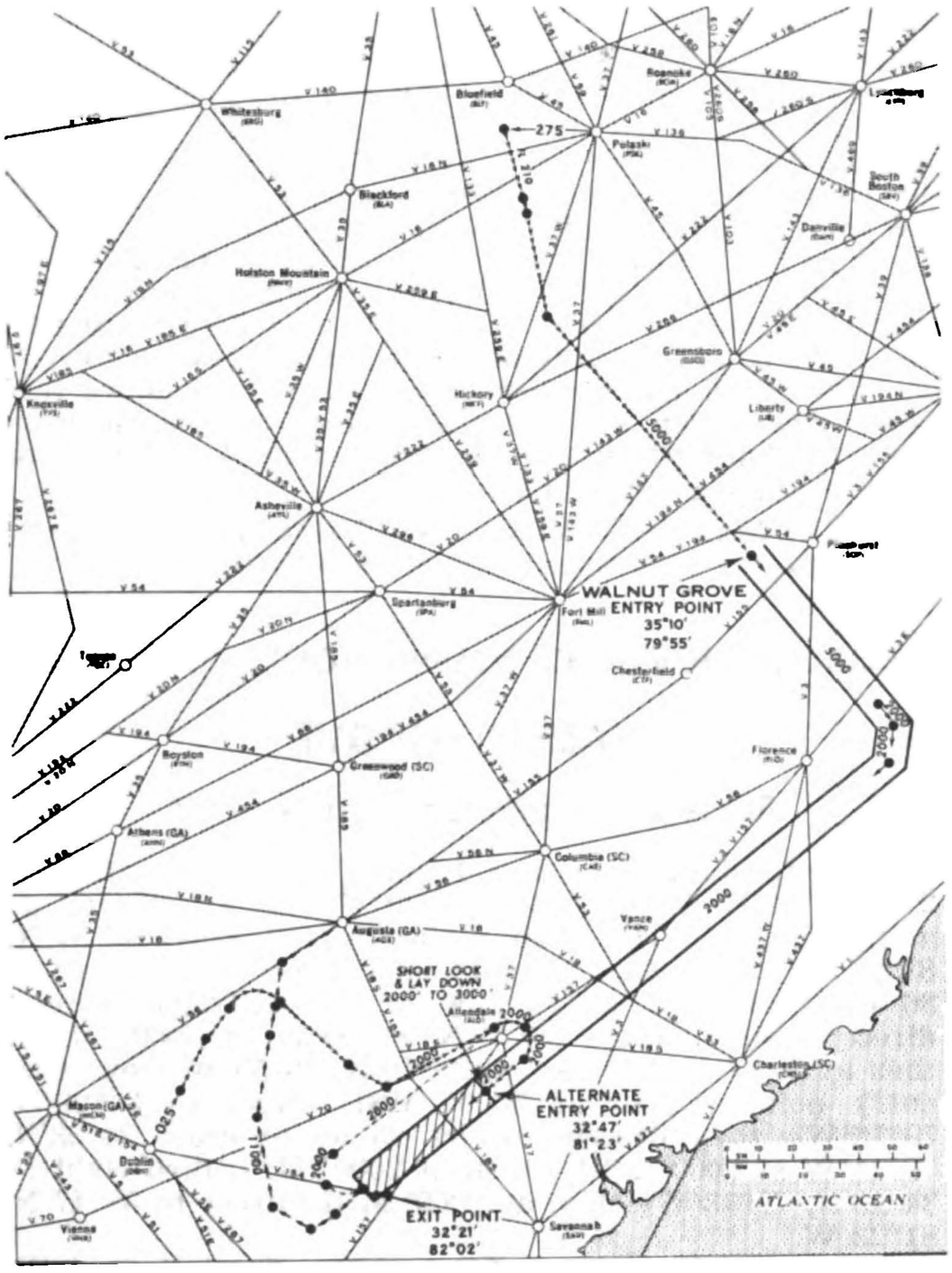
Aircraft shall cross the Pulaski, Virginia VORTAC 275/25 DME fix (37°06′N, 81°14′W) at FL 210 or as assigned by ARTCC; then maintain and cross 36°47′N, 81°08′W at FL 210; then descend direct so as to cross 36°43′N, 81°07′W at FL 180 or above; then descend direct so as to cross 36°15′N, 81°00′W at 5000′ MSL; then at 5000′ MSL direct to 35°10′N, 79°55′W (low level entry point); then at 5000′ MSL direct to 34°29′N, 79°16′W; then descend direct so as to cross 34°23′N, 79°11′W at 2000′ MSL; then at 2000′ MSL turn right to 34°13′N, 79°13′W; then at 2000′ MSL direct to 32°47′N, 81°23′W.

Short Look and Lay Down—After passing 32°47′N, 81°23′W aircraft shall maintain between 2000′ MSL and 3000′ MSL through the bomb run corridor (5 SM either side of center line from 32°47′N, 81°23′W to 32°21′N, 82°-02′W). After exiting the route at 32°21′N, 82°02′W, aircraft shall climb to or maintain 3000′ MSL to 32°-14′N, 82°10′W; then climb direct so as to cross 32°10′N, 82°18′W at 6000′ MSL; then climb direct so as to cross 32°16′N, 82°30′W at 11,000′ MSL; maintain 11,000′ direct 32°40′N, 82°35′W; then climb direct so as to cross 33°02′N, 82°31′W at FL 180; cross 33°10′N, 82°29′W at FL 200; cross 33°22′N, 82°27′W at FL 230 or as assigned; then at FL 230 or as assigned direct to the Augusta, Georgia VOR.

Re-Entry—Aircraft that are scheduled to execute an additional bomb run shall, after exiting the low level route at 32°21′N, 82°02′W, turn right and descend or maintain 2000′ MSL to 32°22′N, 82°13′W; then at 2000′ MSL continue turn to 32°30′N, 82°11′W; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′N, 81°10′W; continue turn to 32°-55′N, 81°11′W; then at 2000′ MSL direct to 32°47′N, 81°23′W; thence via the published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31′N, 83°08′W) at FL 260 or as assigned; then descend direct via the Dublin VOR 025° radial so as to cross 32°47′N, 82°59′W at FL 230; cross 33°01′N, 82°51′W at 17,000′ MSL; cross 33°09′N, 82°44′W at

15,000′ MSL; turn right to cross 33°11′N, 82°28′W at 13,000′ MSL; cross 32°54′N, 82°06′W at 3000′ MSL; then descend direct so as to cross 32°48′N, 81°54′W at 2000′ MSL; then at 2000′ MSL direct to 33°04′N, 81°20′W; then at 2000′ MSL turn right to 33°04′, 81°10′W; continue turn to 32°55′N, 81°11′W; then at 2000′ MSL direct to intercept the Walnut Grove route at 32°47′N, 81°23′W.



Route Width—The entire route width is reduced to 5 SM either side of centerline.

Hours of Operation—Primary entry 1900Z to 2300Z and from 0100Z to 1400Z, 7 days per week; alternate entry 24 hours per day, 7 days per week.

COLORADO/KANSAS/NEW MEXICO

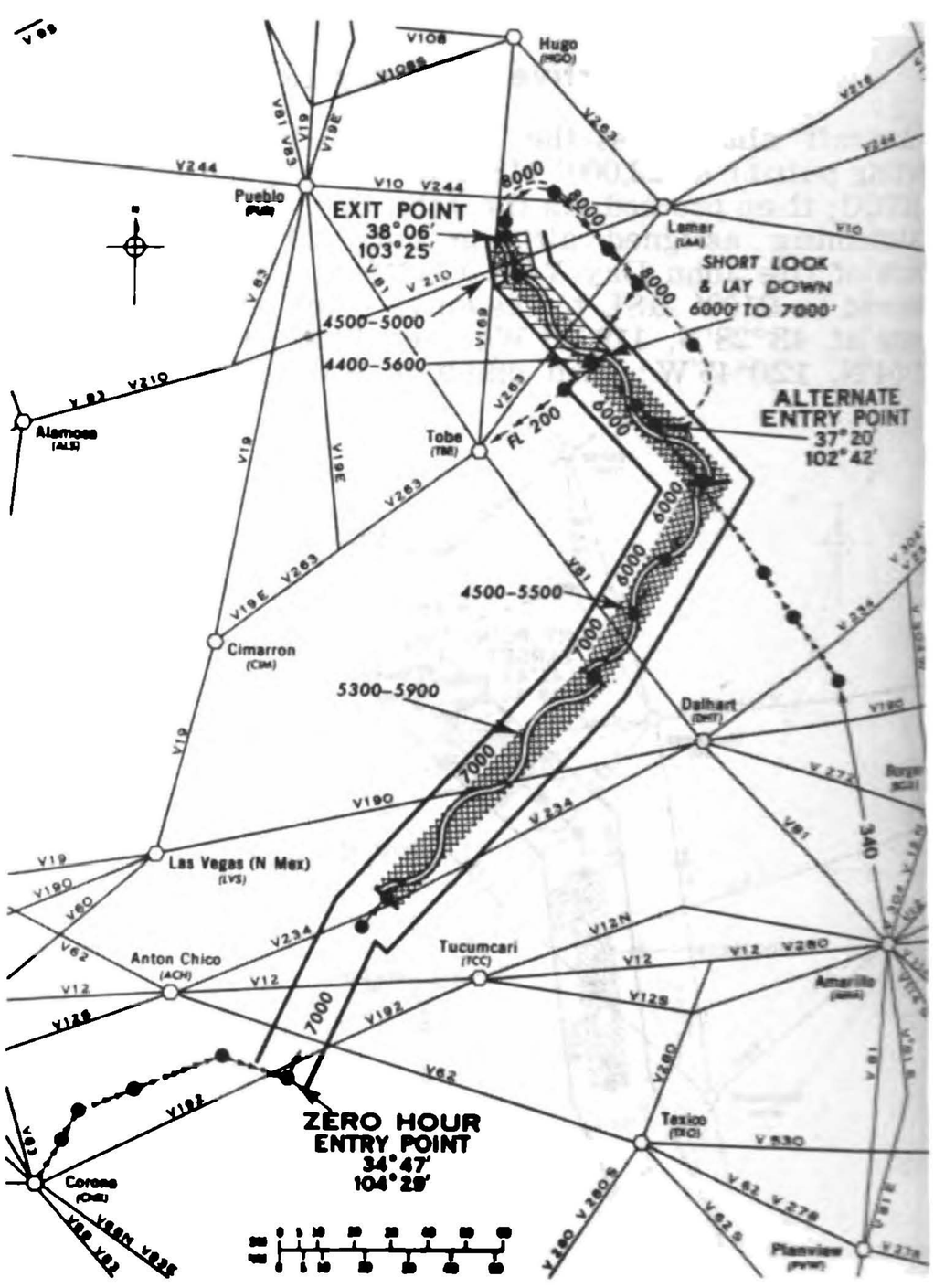
OKLAHOMA/TEXAS

•ZERO HOUR

Revised Effective March 3, 1965

Aircraft shall cross 34°22′N, 105°40′30″W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ATC, then descend direct to cross 34°33′N, 105°33′W at or below FL 230; then descend direct to cross 34°40′N, 105°28′W at FL 220; then descend direct to cross 34°45′N, 105°12′W at or below 17,000′ MSL; then descend direct to cross 34°53′N, 104°48′W at 10,000′ MSL; then descend direct to cross the route entry point at 34°47′N, 104°29′ W at 7000′ MSL, maintain 7000′ MSL direct to 35°24′N, 104°08′W; then 7000′ MSL direct to 36°22′N, 103°00′W; then 7000′ MSL direct to 36°37′N, 102°49′W; then descend direct to cross 36°49′N, 102°40′W at 6000′ MSL; then 6000′ MSL direct to 37°06′N, 102°27′W; then 6000′ MSL direct to 37°36′N, 103°00′W.

Short Look and Lay Down—After passing 37°36′N, 103°00′W, aircraft shall maintain between 6000′ MSL and 7000′ MSL thru the bomb run corridor (5 SM either side of centerline from 37°36′N, 103°00′W to 37°57′N, 103°22′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, turn right, maintain 8000′ MSL to 38°15′N, 103°10′W, then 8000′ MSL direct to 38°02′N, 102°55′W, then climb direct to cross 37°53′N, 102°45′W at 9000′ MSL, continue climb direct to cross 37°30′N, 103°08′W at FL 200; then maintain FL 200 direct to Tobe VORTAC.



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06′N, 103°25′W, climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, maintain 8000′ MSL right turn to 38°15′N, 103°10′W, then 8000′ MSL direct to 37°40′N, 102°30′W; then turn right descending to cross 37°24′N, 102°47′W at 6000′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. During daylight hours, some VFR operations will be flown 500′ above the immediate ter-

In VFR operations conducted during the hours of ...ness will not be flown lower than 800' above the ...rain. The lower VFR altitude shown on the chart is ...e minimum that will be reached on each segment during ...flight hours.

Alternate Entry—Aircraft shall cross 36°19'N, 101°51'W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ...C, then descend direct to cross 36°34'N, 102°03'W at ...00' MSL; then descend direct to cross 36°44'N, 102°-W at 14,000' MSL; then descend direct to cross 37°-06'N, 102°27'W at 11,000' MSL; then descend direct to cross 37°20'N, 102°42'W at 6000' MSL; thence via the published route.

Route Width—The route width from 34°47'N, 104°29'W to 35°24'N, 104°08'W is reduced to 5 SM on the east side of centerline, and from 37°36'N, 103°00'W, to 38°06'N, 103°25'W, the route is reduced to 5 SM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelle effective Feb 27, 1965:

Location	Procedure	Action
LOW FREQUENCY RANGE		
Pendleton, Oreg.—Pendleton Mun Arpt	No. 1, Amdt. 13	Revised
AUTOMATIC DIRECTION FINDING		
Birmingham, Ala.—Municipal Arpt	No. 1, Amdt. 15	Revised
Corpus Christi, Tex.—Corpus Christi Int'l Arpt	No. 1, Amdt. 10	Revised
Corpus Christi, Tex.—Corpus Christi Int'l Arpt	No. 2, Amdt. 3	Revised
Dallas, Tex.—Dallas Love Fld	No. 4, Orig	Established
El Paso, Tex.—International Arpt	No. 2, Amdt. 3	Revised
VHF OMNIRANGE		
Corpus Christi, Tex.—Corpus Christi Int'l Arpt	No. 1, Amdt. 8	Revised
Delta, Utah—Delta Mun Arpt	No. 1, Amdt. 6	Revised
Eagle Lake, Tex.—Eagle Lake Arpt	No. 1, Orig.	Established
El Paso, Tex.—International Arpt	No. 1, Amdt. 17	Revised
Fort Ord, Calif.—Fritzsche AAF	No. 1, Orig.	Established
Palm Springs, Calif.—Palm Springs Mun Arpt	No. 1, Orig.	Established
TERMINAL VOR		
Newport, Oreg.—Newport Mun Arpt	VOR–34, Amdt. 3	Revised
VOR/DME		
Newport, Oreg.—Newport Mun Arpt	VOR/DME #1, Amdt. 1	Revised
Newport, Oreg.—Newport Mun Arpt	VOR/DME #2, Orig.	Established
Pendleton, Oreg.—Pendleton Mun Arpt	VOR/DME #1, Amdt. 4	Revised
INSTRUMENT LANDING SYSTEM		
Birmingham, Ala.—Municipal Arpt	ILS–5, Amdt. 18	Revised
Chicago, Ill.—Chicago-O'Hare Int'l Arpt	ILS–14L, Amdt. 7	Revised
Corpus Christi, Tex.—Corpus Christi Int'l Arpt	ILS–13, Amdt. 9	Revised
Corpus Christi, Tex.—Corpus Christi Int'l Arpt	ILS–31, (Back Course), Orig.	Established
Des Moines, Iowa—Des Moines Mun Arpt	ILS–12 (Back Course), Orig.	Established
Montgomery, Ala.—Dannelly Fld	ILS–27, Amdt. 3, efctv 7 Jan 61	Cancelled
New York, N.Y.—John F. Kennedy Int'l Arpt	ILS–4R, Amdt. 8	Revised
Portland, Oreg.—Portland Int'l Arpt	ILS–10R, Amdt. 14	Revised
Reno, Nevada—Reno Mun Arpt	ILS–16, Amdt. 1	Revised
RADAR		
Arcata-Eureka, Calif.—Arcata Arpt	No. 1, Orig.	Established

The following Standard Instrument Approach Procedures will be revised, established, or cancelled fective Mar 6, 1965:

Location	Procedure	Action
LOW FREQUENCY RANGE		
dmond, Oreg.—Roberts Fld	No. 1, Amdt. 6, efctv 26 Dec 64	Cancelled
AUTOMATIC DIRECTION FINDING		
ttle Creek, Mich.—W.K. Kellogg Regional Airfld	No. 1, Amdt. 2	Revised
l Rio, Tex.—International Arpt	No. 1, Amdt. 1	Revised
neau, Alaska—Juneau Arpt	No. 1, Amdt. 1	Revised
eblo, Colo.—Pueblo Memorial Arpt	No. 1, Amdt. 3	Revised
eblo, Colo.—Pueblo Memorial Arpt	No. 2, Amdt. 1	Revised
dmond, Oreg.—Roberts Fld	No. 1, Orig., efctv 6 Mar 65	Established
VHF OMNIRANGE		
lumbus, Ga.—Muscogee Co. Arpt	No. 1, Amdt. 6	Revised
nbury, Conn.—Danbury Mun Arpt	No. 1, Orig.	Established
l Rio, Tex.—International Arpt	No. 1, Amdt. 1	Revised
neau, Alaska—Juneau Arpt	No. 1, Amdt. 1	Revised
eblo, Colo.—Pueblo Memorial Arpt	No. 1, Amdt. 11	Revised
dmond, Oreg.—Roberts Fld	No. 1, Amdt. 3	Revised
nsgrove, Pa.—Penn Valley Arpt	No. 1, Orig.	Established
tertown, S. Dak.—Watertown Mun Arpt	No 1, Amdt. 5	Revised
lmington, N.C.—New Hanover Co. Arpt	No. 1, Amdt. 3	Revised
TERMINAL VOR		
llas, Tex.—Addison Arpt	TerVOR-15, Amdt. 8	Revised
llas, Tex.—Addison Arpt	TerVOR-33, Amdt. 7	Revised
rney, Neb.—Kearney Mun Arpt	TerVOR-18, Orig.	Established
VOR/DME		
dmond, Oreg.—Roberts Fld	VOR/DME #1, Amdt. 1	Revised
ton, Tex.—Stinton Arpt	VOR/DME #, Orig.	Revised
INSTRUMENT LANDING SYSTEM		
tle Creek, Mich.—W.K. Kellogg Regional Airfld	ILS-22, Amdt. 2	Revised
blo, Colo.—Pueblo Memorial Arpt	ILS-7, Amdt. 5	Revised
blo, Colo.—Pueblo Memorial Arpt	ILS-25, Amdt. 3	Revised
hita Falls, Tex.—Sheppard AFB/Wichita Falls ir Terminal	ILS-15, Amdt. 3	Revised
RADAR		
stone Arsenal, Ala.—Redstone AAF	No. 1, Amdt. 4	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled ctive Mar. 13, 1965:

AUTOMATIC DIRECTION FINDING		
ene, Tex.—Abilene Mun Arpt	No. 1, Amdt. 4	Revised
rado Springs, Colo.—Peterson Fld	No. 1, Amdt. 14	Revised
mbia, S.C.—Columbia Arpt	No. 1, Amdt. 10	Revised
mbus, Ga.—Lawson AAF	No. 1, Amdt. 3	Revised
mbus, Ga.—Lawson AAF	No. 2, Amdt. 1	Revised
erial, Neb.—Imperial Mun Arpt	No. 1, Amdt. 2	Revised
Bern, N.C.—Simmons-Nott Arpt	No. 1, Amdt. 4	Revised
Orleans, La.—New Orleaans Int'l (Moisant Fld)	No. 3, Amdt. 1 efctv 12 Sep 64	Cancelled

Location	Procedure	Action
VHF OMNIRANGE		
Dothan, Ala.—Dothan Mun Arpt	No. 1, Amdt. 2, efctv 20 Feb 65	Cancelled
Fortuna, Calif.—Rohnerville Arpt	No. 1, Amdt. 1	Revised
Grand Haven, Mich.—Grand Haven Memorial Arpt	No. 1, Amdt. 4	Revised
New Bern, N.C.—Simmons-Nott Arpt	No. 1, Amdt. 2	Revised
TERMINAL VOR		
Colorado Springs, Colo.—Peterson Fld	No. TerVOR–30, Amdt. 2	Revised
Columbus, Ga.—Lawson AAF	TerVOR–2, Amdt. 3	Revised
Liberal, Kans.—Liberal Mun Arpt	No. TerVOR–35, Amdt. 1	Revised
New Orleans, La.—New Orleans Int'l Arpt	TerVOR–1, Orig., efctv 29 Aug 64	Cancelled
New Orleans, La.—New Orleans Int'l Arpt	TerVOR–19, Orig., efctv 29 Aug 64	Cancelled
Rochester, N.Y.—Rochester-Monroe Co Arpt	TerVOR–4, Orig.	Established
Rochester, N.Y.—Rochester-Monroe Co Arpt	TerVOR–22, Orig	Established
INSTRUMENT LANDING SYSTEM		
Abilene, Tex.—Abilene Mun Arpt	ILS–17, Amdt. 3, (Back Course)	Revised
Abilene, Tex.—Abilene Mun Arpt	ILS–35, Amdt. 4	Revised
Colorado Springs, Colo.—Peterson Fld	Amdt. 3, (Back Course)	Revised
Colorado Springs, Colo.—Peterson Fld	ILS–35, Amdt. 18	Revised
RADAR		
Atlanta, Ga.—Fulton Co Arpt	No. 1, Amdt. 2	Revised
Charlotte, N.C.—Douglas Mun Arpt	No. 1, Amdt. 2	Revised
Colorado Springs, Colo.—Peterson Fld	No. 1, Amdt. 6	Revised
Duluth, Minn.—Duluth Int'l Arpt	No. 1, Amdt. 2	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Mar 20, 1965:

LOW FREQUENCY RANGE		
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 11	Revised
AUTOMATIC DIRECTION FINDING		
Anchorage, Alaska—Anchorage Int'l Arpt	No. 1, Amdt. 14	Revised
Del Rio, Texas—International Arpt	No. 1, Amdt. 2	Revised
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 6	Revised
Phoenix, Ariz.—Phoenix Sky Harbor Mun Arpt	No. 1, Amdt. 1	Revised
Reno, Nev.—Reno Mun Arpt	No. 2, Amdt. 1	Revised
Rockford, Ill.—Greater Rockford Arpt	No. 1, Amdt. 7	Revised
Topeka, Kans.—Phillip Billiard Mun Arpt	No. 1, Amdt. 17	Revised
VHF OMNIRANGE		
Del Rio, Texas—International Arpt	No. 1, Amdt. 2	Revised
Detroit, Mich.—Detroit City Arpt	No. 1, Amdt. 1	Revised
Detroit, Mich.—Detroit City Arpt	No. 2, Amdt. 1	Revised
Fremont, Mich.—Fremont Mun Arpt	No. 1, Amdt. 1	Revised
Laredo, Texas—Laredo Mun Arpt	No. 1, Amdt. 1	Revised
Rockford, Ill.—Greater Rockford Arpt	No. 1, Amdt. 5	Revised
Texarkana, Ark.—Texarkana Mun Arpt	No. 1, Amdt. 6	Revised
Thermal, Calif.—Municipal Arpt	No. 1, Amdt. 4, efctv 11 Jun 55	Cancelled
Topeka, Kans.—Phillip Billard Mun Arpt	No. 1, Amdt. 7	Revised

Location	Procedure	Action
TERMINAL VOR		
arlotte, N.C.—Douglas Mun Arpt	TerVOR-5, Amdt. 2	Revised
n Diego, Calif.—San Diego Int'l/Lindbergh Fld	TerVOR-9, Amdt. 10	Revised
ermal, Calif.—Thermal Arpt	TerVOR-R-125, Orig.	Established
VOR/DME		
arleston, S.C.—Charleston AFB/Mun Arpt	VOR/DME #2, Amdt. 2	Revised
arlotte, N.C.—Douglas Mun Arpt	VOR/DME #1, Orig.	Established
inesville, Fla.—Gainesville Mun Arpt	VOR/DME #1, Amdt. 1	Revised
ns Falls, N.Y.—Warren Co Arpt	VOR/DME #1, Amdt. 1	Revised
kford, Ill.—Greater Rockford Arpt	VOR/DME #1, Amdt. 3	Revised
INSTRUMENT LANDING SYSTEM		
ver, Colo.—Stapleton Int'l Arpt	ILS-35, Amdt. 4	Revised
rett, Wash.—Paine Fld	ILS-16, Amdt. 3	Revised
annis, Mass.—Barnstable Mun Arpt	ILS-24, Amdt. 4	Revised
kford, Ill.—Greater Rockford Arpt	ILS-36, Amdt. 6	Revised
eka, Kans.—Phillip Billard Mun Arpt	ILS-13, Amdt. 18	Revised
eka, Kans.—Phillip Billard Mun Arpt	ILS-31, Amdt. 8	Revised
RADAR		
shington, D.C.—Washington Nat'l Arpt	No. 1, Amdt. 13	Revised

DATES OF LATEST EDITIONS

Aeronautical Charts
Coast and Geodetic Survey

SECTIONAL

	Current Edition Date	Next Edition Date
→ Aberdeen	Mar 4 65	8/19/65
Albany	Feb 4 65	7/22/65
→ Albuquerque	Mar 4 65	8/19/65
Aroostook	Apr 30 64	4/29/65
Austin	Nov 12 64	4/29/65
* Beaumont	Sep 17 64	4/1/65
Bellingham	Dec 10 64	5/27/65
Birmingham	Oct 15 64	4/29/65
Boise	May 28 64	5/27/65
→ Boston	Mar 4 65	9/16/65
Burlington	Nov 12 64	4/29/65
Butte	Feb 4 65	7/22/65
* Casper	Oct 15 64	4/1/65
Charlotte	Oct 15 64	4/29/65
Chattanooga	Feb 4 65	8/19/65
Cheyenne	Dec 10 64	6/24/65
Chicago	Dec 10 64	5/27/65
Cincinnati	Feb 4 65	8/19/65
Cleveland	Nov 12 64	5/27/65
Corpus Christi	Feb 4 65	7/22/65
Dallas	Feb 4 65	7/22/65
Del Rio	Nov 12 64	11/11/65
Denver	Dec 10 64	6/24/65
Des Moines	Nov 12 64	4/29/65
Detroit	Jan 7 65	7/22/65
Douglas	Oct 15 64	10/14/65
* Dubuque	Sep 17 64	4/1/65
Duluth	Jul 23 64	7/22/65
Elko	Dec 10 64	5/27/65
→ El Paso	Mar 4 65	8/19/65
→ Fargo	Mar 4 65	8/19/65
Glacier Park	Oct 15 64	10/14/65
Grand Canyon	Dec 10 64	5/27/65
Grand Junction	Nov 12 64	5/27/65
Green Bay	Dec 10 64	5/27/65
Huntington	Feb 4 65	8/19/65
Jacksonville	Nov 12 64	4/29/65
Kansas City	Feb 4 65	8/19/65
* Klamath Falls	Sep 17 64	4/1/65
Kootenai	Feb 4 65	2/3/66
La Grande	Feb 4 65	7/22/65
Lake Huron	May 28 64	5/27/65
→ Lake Superior	Mar 4 65	8/19/65
Lake of Woods	Aug 20 64	8/19/65
Lewiston	Nov 12 64	4/29/65
* Lincoln	Oct 15 64	4/1/65
Little Rock	Jan 7 65	7/22/65
→ Los Angeles	Mar 4 65	8/19/65
* Miami	Sep 17 64	4/1/65
Miles City	Oct 15 64	4/29/65
Milwaukee	Dec 10 64	5/27/65
→ Minot	Mar 4 65	9/16/65
Mobile	Feb 4 65	7/22/65
Mt. Shasta	Nov 12 64	5/27/65
Mt. Whitney	Jan 7 65	6/24/65
Nashville	Jan 7 65	7/22/65
* New Orleans	Sep 17 64	4/1/65
* New York	Oct 15 64	4/1/65
→ Norfolk	Mar 4 65	9/16/65
Oklahoma City	Nov 12 64	4/29/65
Orlando	Nov 12 64	4/2
Phoenix	Jan 7 65	7/2
* Pocatello	Oct 15 64	4/
Portland	Feb 4 65	7/2
* Prescott	Sep 17 64	4/
Rapid City	Dec 10 64	6/2
Reno	Jan 7 65	6/2
Roswell	Jan 7 65	6/2
Sacramento	Jan 7 65	6/2
* Salina	Sep 17 64	4/
Salt Lake City	Dec 10 64	5/2
San Antonio	Jan 7 65	6/2
→ San Diego	Mar 4 65	8/1
San Francisco	Jan 7 65	6/2
→ Savannah	Mar 4 65	9/1
Seattle	Dec 10 64	6/2
Shreveport	Jan 7 65	6/2
Sioux City	Nov 12 64	5/2
Spokane	Dec 10 64	6/2
→ Trinidad	Mar 4 65	9/1
Tulsa	Oct 15 64	4/2
Twin Cities	Nov 12 64	4/2
* Washington, D.C.	Oct 15 64	4/
Wichita	Jan 7 65	6/2
Williston	Jul 23 64	7/2
* Winston-Salem	Oct 15 64	4/
→ Yellowstone Park	Mar 4 65	9/1
Hawaiian Is.	Dec 10 64	12/

LOCAL

	Current Edition Date	Next Edition Date
Atlanta	Oct 15 64	4/29/65
→ Boston	Mar 4 65	9/16/65
Brownsville	Feb 4 65	7/22/65
Chicago	Dec 10 64	5/27/65
Cleveland	Nov 12 64	5/27/65
Dallas-Ft. Worth	Feb 4 65	7/22/65
Dayton	Feb 4 65	8/19/65
Denver	Dec 10 64	6/24/65
Detroit	Jan 7 65	7/22/65
Honolulu	Jan 7 65	1/6/66
Indianapolis	Feb 4 65	8/19/65
Jacksonville	Nov 12 64	4/29/65
Kansas City	Feb 4 65	8/19/65
→ Los Angeles	Mar 4 65	8/19/65
* Miami	Sep 17 64	4/1/65
Milwaukee	Dec 10 64	5/27/65
Montgomery	Oct 15 64	4/29/65
* New York	Oct 15 64	4/1/65
→ Norfolk	Mar 4 65	9/16/65
* Philadelphia	Oct 15 64	4/
Phoenix	Jan 7 65	7/2
Pittsburgh	Nov 12 64	5/2
St. Louis	Feb 4 65	8/1
→ San Diego	Mar 4 65	8/1
San Francisco	Jan 7 65	6/2
San Juan	Dec 10 64	12/
Seattle	Dec 10 64	6/2
* Washington	Oct 15 64	4/

† DISCONTINUED

→ New Edition published. Obsoletes Earlier Edition on Mar. 4, 1965

* New Edition will be published prior to Effective date Apr. 1, 1965

WORLD AERONAUTICAL - UNITED STATES

VAC 62	June 16, 1964	WAC 217	Aug. 28, 1964	WAC 360	Oct. 27, 1964
VAC 63	July 7, 1964	WAC 218	Apr. 6, 1964	WAC 361	Oct. 27, 1964
VAC 64	Aug. 24, 1964	WAC 219	Apr. 2, 1964	WAC 362	July 28, 1964
VAC 76	Oct. 1, 1964	WAC 262	Apr. 27, 1964	WAC 363	Aug. 3, 1964
VAC 77	Oct. 2, 1964	WAC 263	Apr. 21, 1964	WAC 364	Jan. 23, 1964
VAC 78	Oct. 26, 1964	WAC 264	Apr. 15, 1964	WAC 404	July 29, 1964
VAC 117	May 6, 1964	WAC 265	Sept. 25, 1964	WAC 405	Feb. 14, 1964
VAC 118	June 3, 1964	WAC 266	Oct. 2, 1964	WAC 406	Aug. 12, 1964
VAC 119	July 8, 1964	* WAC 267	Oct. 30, 1963	WAC 407	Mar. 6, 1964
VAC 135	July 9, 1964	WAC 268	Mar. 18, 1964	WAC 408	June 15, 1964
VAC 136	Aug. 3, 1964	WAC 269	Aug. 26, 1964	WAC 409	June 26, 1964
VAC 137	Aug. 7, 1964	WAC 304	Jan. 21, 1964	WAC 410	June 26, 1964
VAC 138	Mar. 17, 1964	WAC 305	Sept. 4, 1964	WAC 466	May 27, 1964
VAC 139	Mar. 3, 1964	WAC 306	Oct. 5, 1964	WAC 467	June 8, 1964
VAC 186	Mar. 17, 1964	WAC 307	Oct. 7, 1964	WAC 468	Dec. 19, 1963
VAC 190	July 6, 1964	→ WAC 308	Nov. 16, 1964	WAC 469	Jan. 6, 1964
VAC 191	Aug. 5, 1964	* WAC 309	Dec. 3, 1963	WAC 470	Feb. 5, 1964
VAC 192	Aug. 19, 1964	* WAC 310	Dec. 5, 1963	WAC 471	Apr. 3, 1964
VAC 193	Aug. 10, 1964	WAC 357	May 8, 1964	* WAC 522	Jan. 8, 1964
VAC 215	Jan. 20, 1964	WAC 358	May 20, 1964	WAC 525	June 1, 1964
VAC 216	Aug. 31, 1964	→ WAC 359	Oct. 28, 1964		

JET NAVIGATION

' 29	United States Northwest	Apr. 3, 1964
' 30	United States Northeast	Mar. 2, 1964
JN 44	United States Southwest	Feb. 3, 1964
JN 45	United States Southeast	Jan. 2, 1964

PLANNING

' 9		Nov. 6, 1963
R/IFR		Jan. 7, 1965
RONAUTICAL CHART CATALOG		Dec. 1964

AIRCRAFT POSITION

3071	North Atlantic	Oct. 12, 1964
3073	Caribbean Sea	Aug. 10, 1964
3087	Central Pacific	Sept. 12, 1964
3094	North Pacific	Aug. 15, 1964
3096	United States-Honolulu	Dec. 21, 1964
→ 3097	North America-Europe	Dec. 11, 1964

SCONTINUED

w Edition published. Obsoletes Chart of Earlier date.

w Edition will be published in about one month.

w Chart. Cancels Chart AP-9

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RN
		ALABAMA			
50	Birmingham		2-27-65 (1)	2-27-65R5	
123	Dothan (Napier Field)	2-20-65 (1)			
577	Ft. Rucker (Cairns AAF)	2-19-65R24	2-19-65 (3)		
633	Huntsville (Madison Co.)	1-29-65 (1)	1-29-65 (1)	1-29-65R18	
				1-29-65R36 (BC)	
703	Huntsville (Redstone AAF)		1-29-65 (1)		
			1-29-65 (2)		
272	Montgomery (Dannelly Fld)	2-27-65 (1)			
		ALASKA			
1500	Anchorage (Intnl)	2-5-65 (1)	2-5-65 (1)	2-5-65R6	2-5-65
1501	Bettles	2-5-65R1	2-5-65 (1)		2-5-65
2054	Fort Yukon	2-19-65R3	2-19-65 (1)		
		2-19-65R21			
2118	Kotzebue (Ralph Wien Mem)		2-6-65 (1)		
		ARIZONA			
546	Prescott	2-20-65 (1)	2-20-65 (1)		
		2-20-65DME (1)			
		ARKANSAS			
631	Fort Smith	2-20-65 (1)	2-20-65 (1)	2-20-65R25	
		CALIFORNIA			
67	Burbank (Lockheed Air Term)		2-13-65 (1)*		
5271	Fort Ord (Fritzsche AAF)	2-27-65 (1)*			
162	Fresno (Air Terminal)	2-19-65 (1)	2-19-65 (1)	2-19-65R29R	
		2-19-65 (2)	2-19-65 (2)		
		2-19-65DME (1)			
		2-19-65DME (2)			
237	Los Angeles (Intnl)	2-13-65R7R			
		2-13-65R25L			
271	Monterey (Peninsula)		2-12-65 (1)	2-12-65R10	
543	Needles	2-12-65 (1)			2-12-65
545	Palm Springs	2-27-65 (1)*			
688	Redding	2-5-65R34			
377	Santa Ana (Orange Co.)	2-6-65R19R			
		2-6-65Rad-190			
407	Stockton (Metropolitan)		2-13-65 (1)	2-13-65R29R	
5179	Torrance	2-20-65 (1)			
		2-20-65DME (1)			
552	Van Nuys		2-13-65 (1)*		
558	Visalia	2-6-65 (1)*			
		COLORADO			
114	Denver (Stapleton Intnl)	2-12-65 (1)	2-12-65 (1)	2-12-65R26L	
			2-12-65 (2)	2-12-65R35	
				2-12-65R8R(BC)	
				2-12-65R17(BC)	
		CONNECTICUT			
460			2-5-65 (1)	2-5-65R6	
		DISTRICT OF COLUMBIA			
5100	Washington (Dulles Intnl)		2-5-65 (2)	2-5-65R19R	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

hart io.	City or Town	VOR	ADF	ILS	RNG
		FLORIDA			
52	Melbourne (John F. Kennedy Memorial)	2-12-65R9	2-12-65 (1)		
57	Miami (Intnl)	2-19-65 (1)	2-19-65 (1)	2-19-65R27L	
			2-19-65 (2)	2-19-65R9L	
			2-19-65 (3)	2-12-65R27R(BC)	
				2-12-65R9R(BC)	
17	Tampa (Peter O. Knight)		2-12-65 (1)		
16	Tampa (Intnl)	2-12-65DME(1)			
		ILLINOIS			
56	Chicago (O'Hare Intnl)		2-27-65 (2)	2-27-65R14L	
198	Harrisburg (Raleight)		2-5-65 (1)		
54	Rockford (Greater Rockford)		2-12-65 (1)	2-12-65R36	
		INDIANA			
266	Auburn (Dekalb)	1-30-65 (1)*			
		IOWA			
7	Des Moines	2-27-65 (1)	2-19-65 (1)	2-19-65R30	
				2-27-65R12 (BC)*	
		KENTUCKY			
10	London (Corbin-London War Memorial)	2-19-65 (1)			
		LOUISIANA			
1	Baton Rouge (Ryan)	2-5-65 (1)	2-5-65 (1)	2-5-65R13	
				2-5-65R31 (BC)	
		MAINE			
19	Sanford	2-5-65 (1)			
		MARYLAND			
263	Cumberland		2-12-65 (1)*		
14	Hagerstown	2-5-65 (1)			
		MASSACHUSETTS			
19	Nantucket (Memorial)	2-13-65 (1)		2-13-65R6 (BC)*	
12	Worcester		1-29-65 (1)	1-29-65R33	
		MICHIGAN			
8	Alpena (Phelps-Collins)		2-13-65 (1)		
8	Detroit (City)	2-12-65 (1)	2-12-65 (1)		2-12-65 (1)
		2-12-65 (2)			
9	Detroit (Metro. Wayne Co.)		2-19-65 (1)	2-19-65R3L&R	
			2-19-65 (2)	2-19-65R21R	
23	Escanaba	2-12-65R9			
18	Muskegon (County)	2-5-65 (1)	2-5-65 (1)	2-5-65R32	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		MINNESOTA			
125	Duluth (Intnl)		2-19-65 (1)	2-19-65R9	
5159	Hibbing (Chisholm)	2-13-65 (1) 2-13-65 (2)*			
5118	Mankato	2-20-65R32			
264	Minneapolis (St. Paul Intnl)			2-6-65R11R (BC) 2-6-65R22 (BC)	
5209	Worthington	2-19-65R17			
		MISSISSIPPI			
254	Meridian (Key Field)		2-20-65 (1)	2-20-65R1	
854	Tupelo	2-12-65R5			
		NEVADA			
346	Reno	2-13-65 (1)	2-13-65 (1) 2-13-65 (2)	2-13-65R16*	
		NEW MEXICO			
12	Albuquerque (Sunport/ Kirtland AFB)	2-19-65 (1) 2-19-65DME (1)	2-19-65 (2)	2-19-65R35 2-19-65R17 (BC)	
493	Farmington	2-19-65 (1) 2-19-65DME (1) 2-19-65DME (2)			
		NEW YORK			
65	Buffalo (Greater Buffalo Intnl)	2-19-65DME (1)	2-19-65 (1) 2-19-65 (2) 2-19-65 (3)	2-19-65R23 2-19-65R5 (BC)	
610	New York (John F. Kennedy Intnl)		2-27-65 (1)	2-27-65R4R	
614	Niagara Falls		2-19-65 (1)	2-19-65R28R	
286	Poughkeepsie (Dutchess Co.)	1-29-65 (1)			
955	Utica (Oneida Co.)	2-13-65 (1)	2-13-65 (1) 2-13-65 (2)	2-13-65R33 2-13-65R15 (BC)	
		NORTH CAROLINA			
78	Charlotte (Douglas Fld)	2-20-65R5 2-20-65R36			
516	Raleigh (Durham)		2-20-65 (1)	2-20-65R5	
		NORTH DAKOTA			
635	Minot (Intnl)	2-12-65 (1)			2-12-65
		OHIO			
6	Akron		2-5-65 (1)	2-5-65R25	
83	Cincinnati (Mun-Lunken)				2-12-65
84	Cleveland (Hopkins Intnl)	2-13-65 (1)	2-13-65 (1) 2-13-65 (2)	2-13-65R5R 2-13-65R23L (BC) 2-13-65R27	
702	Findlay	2-12-65 (1)	2-12-65 (1) 2-12-65 (2)		
466	Youngstown		2-6-65 (1)	2-6-65R32	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		OKLAHOMA			
3	Muskogee (Davis Fld)		2-19-65 (1)		
		OREGON			
5	Newport	2-27-65R34			
		2-27-65DME (1)*			
		2-27-65DME (2)*			
)	Pendleton	2-27-65DME (1)	2-20-65 (1)	2-20-65R25R	2-27-65
)	Portland (Intnl)		2-27-65 (1)	2-27-65R10R	
)	The Dalles	2-20-65DME (1)			2-20-65
		PENNSYLVANIA			
6	Beaver Falls (County)	2-19-65 (1)			
)	Butler (Graham)		2-19-65 (1)		
4	Clarion (Rhea)	2-5-65 (1)			
1	Philipsburg (mid-State)	1-29-65 (1)	1-29-65 (1)		
'	Reading (Gen'l Spaatz Fld)		2-5-65 (1)	2-5-65R36	
8	Washington (County)	2-13-65DME (1)*			
		RHODE ISLAND			
	Providence (Green)	2-12-65R5L&R	2-12-65 (1)	2-12-65R5R	
		2-12-65DME (1)			
		SOUTH DAKOTA			
	Aberdeen	2-13-65DME (1)*			
		TENNESSEE			
	Memphis (Metropolitan)		2-6-65 (2)	2-6-65R35	
	Nashville (Metropolitan)	2-5-65 (1)	2-5-65 (1)	2-5-65R2L	
				2-5-65R20K	
		TEXAS			
2	Corpus Christi (Intnl)	2-27-65 (1)	2-27-65 (1)	2-27-65R13	
			2-27-65 (2)	2-27-65R31 (BC)*	
	Dallas (Love Fld)	2-19-65R18	2-19-65 (1)	2-19-65R13L	
			2-19-65 (2)	2-19-65R31R (BC)	
			2-19-65 (3)		
			2-27-65 (4)*		
8	Del Rio (Intnl)	2-6-65 (1)*	2-6-65 (1)*		
0	Eagle Lake	2-27-65 (1)*			
	El Paso (Intnl)	2-7-65 (1)	2-27-65 (2)		
		2-27-65DME (1)			
9	Laredo	2-6-65 (1)*			
9	Sherman	2-5-65 (1)			
		UTAH			
	Delta	2-27-65 (1)			
1	Dugway (Michael AAF)		2-5-65 (1)		
		VIRGINIA			
	Richmond (Byrd Field)	1-29-65R6	1-29-65 (1)	1-29-65R6	
		1-29-65R24	1-29-65 (2)		
		1-29-65R15			
		1-29-65R33			

* NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		WASHINGTON			
45	Bellingham	2-19-65			2-19-65
474	Pasco (Public)	2-20-65R20R 2-20-65R29R			
403	Spokane (Intnl)	2-20-65DME (1)	2-20-65 (1)	2-20-65R21 2-20-65R3 (BC)	
5186	Tacoma (Industrial)		2-20-65 (1) 2-20-65 (2)		
422	Toledo (Winlock)				2-20-65
440	Walla Walla (City-Co.)	2-20-65R16 2-20-65R2 2-20-65R20	2-20-65 (1)		
		WEST VIRGINIA			
788	Beckley (Raleigh Co. Mem)	1-29-65Rad-288			
249	Martinsburg	1-29-65 (1)			1-29-65
		WISCONSIN			
219	La Crosse	2-6-65R13 2-6-65R36	2-6-65 (1)		
262	Milwaukee (Gen'l Mitchell)		2-19-65 (1)	2-19-65R1 2-19-65R19 (BC)	
5050	Stevens Point	1-29-65R21 1-29-65R30			
		RADAR			
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*NEW CHART

ATTENTION FAA PERSONNEL ATTENTION FAA PERSONNEL

AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE—FY 1965

Copy for inclusion in the Airman's Information Manual must be received no later than 0001 EST on the dates reflected in the schedules listed below, in order to assure its publication in the issue specified. Although the dates listed are the actual cut-off times, every effort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each Issue and Section

Effective Date	Section I	Section II	Section III	Section III—A	Section IV	Section IV—A
March 4		February 8	February 16	February 16		February 16
March 18				March 8		
April 1			March 15	March 15		March 15
April 15				April 5		
April 29			April 12	April 12		April 12
May 13				May 3		
May 27	April 26	May 3	May 10	May 10	April 26	May 10
June 10				June 1		
June 24			June 7	June 7		June 7
July 8				June 28		
July 22			July 2	July 2		July 2
August 5				July 30		
August 19		July 26	August 2	August 2		August 2
September 2				August 23		

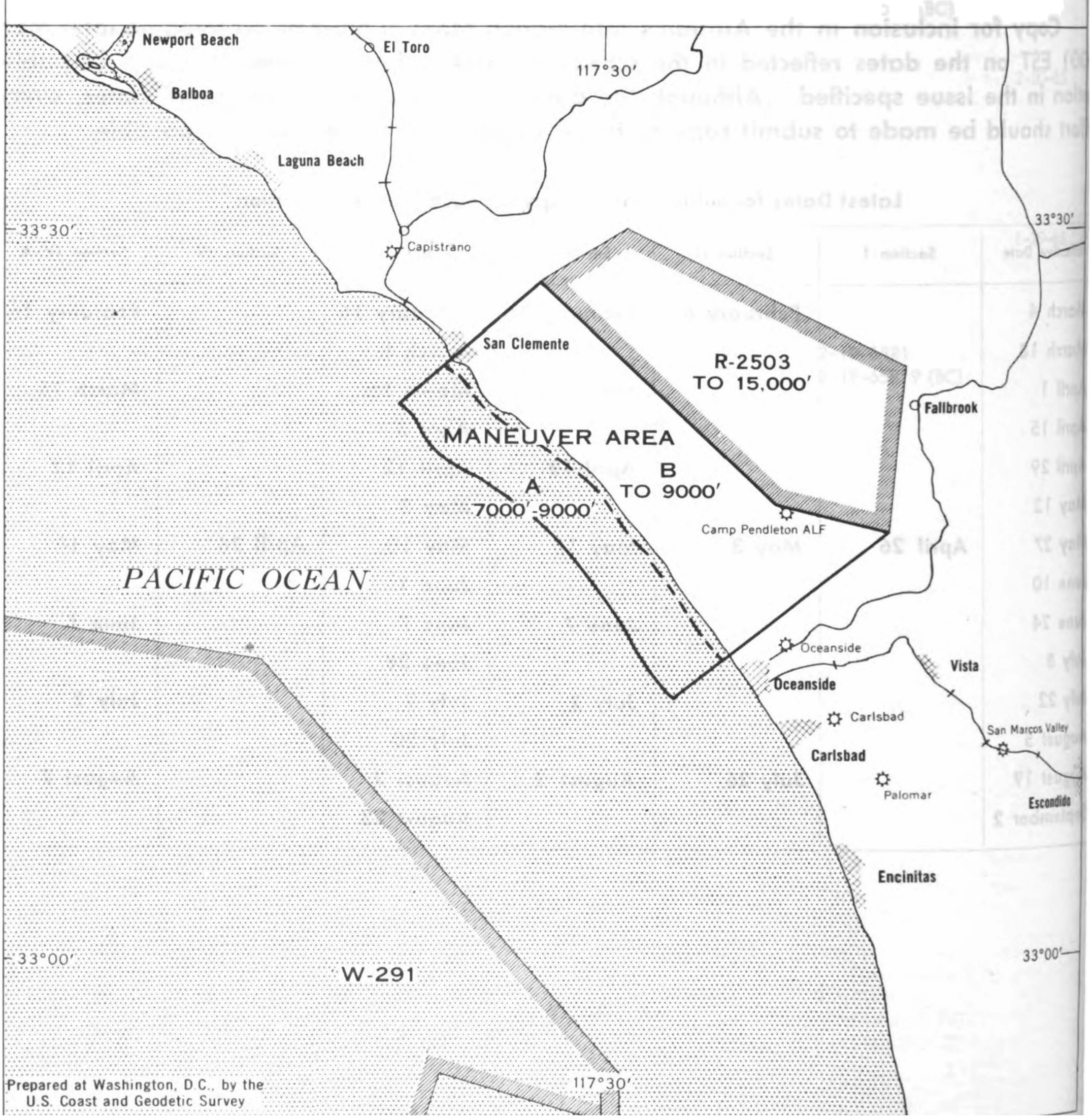
SPECIAL NOTICE

CALIFORNIA

OCEANSIDE

SILVER LANCE MILITARY EXERCISE

***Maneuvers, including air support to Marine Corps landing exercises** are being conducted in the charted area. Pilots should contact Oceanside, San Diego, Thermal, **Long** Beach, Ontario and Los Angeles FSS for information pertaining to air activity during daylight hours on the maneuver dates*, Feb. 23 - Mar. 12, 1965



AIRMAN'S INFORMATION MANUAL

FLIGHT DATA AND SPECIAL OPERATIONS

SECTION III

EFFECTIVE 0501 Z **1 APRIL 1965**

To 0501 Z **29 APRIL 1965**

FEDERAL AVIATION AGENCY

AIRMAN'S INFORMATION MANUAL

INTRODUCTION

This Airman's Information Manual (AIM) has been developed by the Federal Aviation Agency as a pilot's operational manual replacing the Airman's Guide, Directory of Airports and Seaplane Bases, and the Flight Information Manual within the conterminous United States. The existing Alaska Airman's Guide and Chart Supplement and the Pacific Airman's Guide and Chart Supplement will continue to be published every 28 days.

The new AIM presents, in a single document, all information necessary for the planning and conduct of a flight in the National Airspace System. The content and format reflect user identified requirements and provide a "one package" approach.

The manual is divided into six sections, each composed of a specific category or family of information, fashioned into a format consistent with the operational needs of aviation. In contradistinction to previous flight information publications issued by FAA, the design concept of the AIM has provided for consolidation of similar information, segregation of air traffic control procedural information and its sequencing according to operational use, and the elimination of administrative and non-essential data.

The AIM is designed to be carried in the cockpit and may be used collectively or independently by sections. The manual is published as loose-leaf pages, and is three-hole punched to fit a standard three-ring binder.

New or amended textual or tabulated information except in the Airport/Facility Directory, is indicated by a solid dot ● prefixing the heading, paragraph, or line.

Each section of the AIM will be published at varying intervals during the year, depending on the stability or frequency or change of the information.

The various sections and the revision cycle of each are:

Section I	**Basic Flight Manual**	**Semi-annually**
Section II	**ATC Operations and Procedures**	**Quarterly**
Section III	**Flight Data and Special Operations**	**Every 28 days**
Section III–A	**Notices to Airmen**	**Every 14 days**
Section IV	**Airport Directory**	**Semi-annually**
Section IV–A	**Airport/Facility Directory**	**Every 28 days**

The above schedule provides a completely new manual every 6 months.

The revision cycle of Sections III and IV–A is every 28 days, the same as the IFR Enroute charts. Since the charts contains basically enroute information, the AIM serves as a supplementary publication, providing information for planning and terminal operations. Therefore, radio navigation aids are on the charts and unlike the Airman's Guide, are not tabulated in the AIM. Every effort has been made to minimize and eliminate duplication of information within publicatons and between publications and charts.

A brief description of the contents of each section in the AIM follows.

Section I—Basic Flight Manual

This section contains information of an instructional, educational, and training nature, assembled and presented in a systematic format, categorized by subject matter. The novice pilot, as well as the more experienced pilot will find here the basic fundamentals of knowledge for operating in the National Airspace System, information on adverse factors affecting safety of flight and health, and a list of available publications of general operational interest.

Section II—ATC Operations and Procedures

Section II is designed to serve as an official means of disseminating pertinent ATC information of interest to all pilots. The information governing flight operations, air traffic services, and procedures is presented in layman's language and avoids ambiguities which often result from individual interpretations of rules. Data is sequenced in accordance with typical flight operations: Preflight, departure, enroute, arrival and landing procedures. In addition, supporting general procedures and information such as ADIZ, and SCATER procedures is included. Emergency procedures are combined and published at the end of the section.

Section III—Flight Data and Special Operations

Operational data most subject to change and which is not appropriate for inclusion within other sections of the AIM is carried in Section III. Because it contains critical flight data most subject to change, this section should be kept close at hand in the event of a divergence in enroute flight. Some of the most significant material contained in Section III is described below.

A glossary or explanation of aeronautical term or phrases used in the AIM, and a list of commonly used abbreviations.

Special Notices of pertinent current information of operational value for both preflight planning and enroute operations. These Special Notices are divided into three categories: General Notices—those of a general nature with universal application; Area Notices—those pertinent to a specific geographical area; and Regulatory Notices—these are condensations of changes to or new rules, parts, Advisory Circulars, Special Procedures and other regulatory matters of operational interest.

A Sectional Chart Bulletin, as a means of updating the Sectional Charts, providing a cumulative tabulation of the major changes in aeronautical information occurring since the last chart publication date.

Detailed description tabulations and charts of Special Operations such as Oil Burner Routes and military refueling tracks.

Section III—A—Notices to Airmen

This section serves as a supplement, issued every fourteen days, to the AIM and provides operationally required data pertinent to the continuous NOTAMs carried in the daily teletypewriter NOTAM Summary (NOSUM), revisions to Oil Burner routes, and those airman advisories deemed essential to the safe conduct of flight.

Sections IV and IV-A—Airport Directory

Within Sections IV and IV-A there are provided an Airport Directory, a tabulation of ARTCC communications, frequencies, and a tabulation of Flight Service Stations.

Section IV contains the Airport Directory which is a listing of all known airports, heliports, and seaplane bases available for transient civil use within the conterminous United States, and indicates those airport services and facilities available at each. The seaplane tabulation and the heliport tabulation follow the airport tabulation. Military airports and privately owned and operated airports closed to civil aviation are not listed.

Section IV-A contains an Airport/Facility Directory providing an integrated tabulation of major airports, heliports and seaplane bases which have terminal navaids and communications facilities available at the airport. This tabulation combines all facilities and services available at each airport (heliport or seaplane base) or terminal area into a single listing.

In both Sections IV and IV-A, airports are listed alphabetically by geographical location (city or town) within each state. Airports tabulated in IV-A are cross-referenced in Section IV.

In Section IV-A, the Airport/Facility Directory is followed by the tabulation of all ARTC Center VHF communications frequencies. This, in turn, is followed by the tabulation of FSS's, which shows their telephone numbers, the number of the associated Weather Bureau Office, and other pertinent data.

The Master Alphabetical Indext of the entire Manual is provided in this Section. This complete and comprehensive index lists all items of information, cross referenced

under all headings to which reference might reasonably be made, giving section and page number. Within the index, any reference involving emergency actions or procedures is printed in bold-face type.

Errors, Omissions, or Suggested Changes

Errors, omissions, or suggested changes should be forwarded to the Federal Aviation Agency, Air Traffic Service, Attention AT-600, Washington, D.C. 20553. Airport managers, operators and owners are urged to review data for their airport and report any errors or omissions to FAA at the address given above.

Procurement

The Airman's Information Manual is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Orders should be accompanied by check or money order made payable to the Superintendent of Documents.

INTRODUCTION

Section III—FLIGHT DATA AND SPECIAL OPERATIONS

Section III is published every 28 days and contains operational flight data most subject to continuous change that is not appropriate for inclusion within other sections of the Manual. Because it contains such critical flight data, this section should be kept close at hand in the event of a divergence in en route flight.

The information in Section III is presented in various tabulations or grouping arrangements appropriate to the specific items. Typical examples are: Preferred Routes, VOR Receiver Check Points, Parachute Jumping Areas, and Substitute Route Structures.

As a means of updating the Sectional Charts produced by the Coast and Geodetic Survey, Department of Commerce, a Sectional Chart Bulletin is included in Section III. This bulletin provides a cumulative tabulation of the major changes in aeronautical information that have occurred since the last publicaton date (normally every 6 months) of each sectional chart. Only those changes to controlled airspace and special use airspace, airports, and radio navigation facilities that present a hazardous condition or impose a restriction on the pilot are listed, thereby continually providing the VFR pilot with the essential data for keeping his sectional charts current until they are reissued.

At the end of Section III are grouped detailed tabulations and charts of special operations and areas such as Oil Burner Routes, and military low altitude refueling tracks. This arrangement provides a consolidated presentation of areas and special operations that are not designated through rule-making procedures.

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GLOSSARY OF AERONAUTICAL TERMS

R DEFENSE IDENTIFICATION ZONE (ADIZ)—The area of air-ace over land or water within which the ready identi-ation, the location, and the control of aircraft are re-ired in the interest of national security. For operat-g details see ADIZ procedures.

IPORT ADVISORY AREA—The area within five statute ies of an uncontrolled airport on which is located a ight Service Station so depicted on the appropriate ctional Aeronautical Chart.

IPORT ADVISORY SERVICE—A service provided by a Flight rvice Station to enhance the safety of terminal oper-ons of airports where a station is operating but where re is no control tower.

IPORT SURFACE DETECTION EQUIPMENT (ASDE)—Radar ipment specifically designed to detect all principal tures on the surface of an airport, including vehicular ffic, and to present the entire picture on a radar indi-or console in the control tower. ASDE has a maxi-m range of four miles, though its 16 inch diameter pe usually displays an area of only one mile radius ut the control tower.

IPORT SURVEILLANCE RADAR (ASR)—Radar providing posi-n of aircraft by azimuth and range data without ele-tion data. It is designed for a range of 50 miles.

IPORT TRAFFIC AREA—The airspace within a circular it defined by a five statute mile horizontal radius m the geographical center of an airport at which an rative airport traffic control tower is located and ex-ding upwards from the surface to, but not including, 0 feet above the surface.

ROUTE SURVEILLANCE RADAR (ARSR)—Long range radar ich increases the capability of ATC for handling heavy route traffic. An ARSR site is usually located at some tance from the ARTCC it serves.

ROUTE TRAFFIC CONTROL CENTER (ARTCC)—A facility ablished to provide traffic control service to Instru-nt Flight Rules (IFR) flights operating within con-lled airspace and principally during the en route se of flight.

ITUDE RESERVATION (ALTRV)—Airspace utilization under scribed conditions, normally employed for the mass vement of aircraft or other special user requirements ich cannot otherwise be accomplished. ALTRV's are roved by the appropriate FAA facility.

ROACH CONTROL SERVICE—Air traffic control service, vided by a terminal area traffic control facility, for iving and or departing IFR flights and, on occasion, R flights.

AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)—The continuous broadcast of recorded noncontrol information in selected high activity terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information.

CARDINAL ALTITUDES OR FLIGHT LEVELS—"Odd" or "even" thousand-foot altitudes or flight levels. Examples: 5000, 6000, 7000, FL 250, FL 260, FL 270.

CEILING—The height above the ground or water of the lowest layer of clouds or obscuration phenomena that is reported as "broken," "overcast," or "obscuration" and not classified as "thin" or "partial."

CENTRAL ALTITUDE RESERVATION FACILITY (CARF)—An Air Traffic Service facility established to conduct the volume of coordination, planning and approval of special user requirements under the altitude reservation concept.

CONSOLAN—A low frequency, long-distance navaid used principally for transoceanic navigation.

CONTERMINOUS U.S.—Forty-eight states and the District of Columbia.

CONTINENTAL CONTROL AREA—The area, which includes that airspace within the contermious United States at and above 14,500 feet MSL, excluding airspace less than 1,500 feet above terrain, and prohibited and restricted areas (except certain specified restricted areas).

CONTINENTAL U.S.—Forty-nine states. The original 48 states and Alaska.

CONTROL AREA—Controlled airspace extending upwards from a specified height above the surface of the earth. Unless otherwise provided in appropriate cases, control areas extend upward from 700 feet above the surface until designated from 1,200 feet above the surface or from at least 500 feet below the MEA, whichever is higher, to the base of the continental control area.

CONTROL ZONE—Controlled airspace extending upwards from the surface of the earth. Control zones may include one or more airports and are normally circular areas 5 statute miles in radius with extension where necessary to include instrument approach and departure paths.

CRUISE—The term "cruise" used instead of "maintain" in an ATC clearance indicates that descent from cruising altitude may be commenced at pilot's discretion without further clearance from ATC. "Cruise" is normally used only on relatively short flights in uncongested areas, and is authorization for the flight to proceed to, and make an approach at, destination.

DISCRETE FREQUENCY—A frequency assigned a particular function.

EXPECTED APPROACH CLEARANCE TIME (EAC)—The time at which it is expected that an arriving aircraft will be cleared to commence approach for a landing.

FINAL APPROACH—IFR—The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, commencing at the point of interception of said course and extending to the airport or the point where circling for landing or missed approach is executed.

FINAL APPROACH—VFR—A flight path of a landing aircraft in the direction of landing along the extended runway center line from the base leg to the runway.

FIX—A geographical position determined visually, by reference to one or more radio navigational aids, by celestial plotting, or by another navigational device.

FLIGHT ADVISORY SERVICE—Advice and information provided by a facility to assist pilots in the safe conduct of flight.

FLIP—Flight Information Publication.

FLIGHT LEVEL (FL)—A level of constant atmospheric pressure related to a reference datum 29.92" HG. For example: Flight Level 250 is equivalent to an altimeter indication of 25,000 feet, and Flight Level 265 to 26,500 feet.

FLIGHT SERVICE STATION (FSS)—A facility operated by the FAA to provide flight assistance service.

IFR CONDITIONS—Weather conditions below the minimum prescribed for flights under VFR.

INITIAL APPROACH—Initial approaches to a facility are normally made over specified routes to the primary navigation facility. When the approach fix is not the primary navigation facility, the transition routes are specified and shown on the particular AL chart. The minimum en route altitude for the route along which the pilot has been flying is normally used as the initial approach altitude. The high level initial approach altitude is usually termed "Initial Penetration Altitude" and is considered as the altitude at which the aircraft begins a penetration. This altitude is established for each particular procedure and is indicated on the associated AL chart.

INTERROGATOR—The ground-based surveillance radar beacon transmitter-receiver which scans in synchronism with a primary radar, transmitting discrete radio signals which repetitiously request all transponders, on the mode being used, to reply. The replies received are then mixed with the primary radar video to be displayed on the same plan position indicators.

JET ROUTES—A high altitude route system, at and above 18,000 feet MSL, predicated on a network of designated high altitude VHF/UHF facilities. (For operating procedures applicable to this system see ENROUTE).

JOINT USE RESTRICTED AREA—An area wherein an aircra may operate if prior permission has been granted b either the restricted area "using agency" or the "co trolling agency." (1) The using agency organization, military command whose activity within a restricte area necessitated the area being so designated; exce that, in the case of those Restricted Area/Military Cli Corridors which do not have a designated controlli agency, the using agency is a military air traffic contr facility which may be contacted for transit through t climb corridor. The using agency notifies the controlli agency whenever permission may be granted by t controlling agency for transit of, or flight within a r stricted area. (2) The controlling agency is a designat FAA facility which may authorize transit of a restrict area.

MAINTAIN—The altitude/flight level instructions in ATC clearance normally require that a pilot "maintai the altitude/flight level at which the flight will opera when in controlled airspace. Altitude/flight lev changes while en route should be requested prior to t time the change is desired.

MAXIMUM AUTHORIZED ALTITUDE (MAA)—The highest al tude on a Federal airway, jet route, or other direct rou for which a MEA is designated in F.A.R. Part 95 which adequate reception of navigation aid signals assured.

MINIMUM CROSSING ALTITUDES (MCA)—The lowest altitud at certain radio fixes at which an aircraft must cr when proceeding in the direction of a higher minim en route IFR altitude.

MINIMUM EN ROUTE IFR ALTITUDE (MEA)—The altitude effect between radio fixes which assures acceptable na gational signal coverage and meets obstruction clearan requirements between those fixes.

MINIMUM OBSTRUCTION CLEARANCE ALTITUDE (MOCA)—T specified altitude in effect between radio fixes on VO airways, off-airway routes on route segments, whi meets obstruction clearance requirements for the ent route segment and which assures acceptable navigation signal coverage only within 22 nautical miles of a VO

MINIMUM RECEPTION ALTITUDE (MRA)—The lowest altitu required to receive adequate signals to determine spec VOR/VORTAC/TACAN fixes.

MODE—The number or letter referring to the specif pulse spacing of the signal transmitted by an interro tor.

RADAR BEACON (SECONDARY RADAR)—A radar system in which the object to be detected is fitted with cooperati equipment in the form of a radio receiver/transmitt (transponder). Radio pulses transmitted from th searching transmitter/receiver (interrogator) site ar received in the cooperative equipment and used to tri ger a distinctive transmission from the transponde This latter transmission, rather than a reflected sign is then received back at the transmitter/receiver site

ADAR ADVISORY SERVICE—The provision of advice or information based on radar observation.

ADIAL—A radial is a magnetic bearing extending from VOR, VORTAC, or TACAN.

IMARY RADAR—A radar system in which a minute portion of a radio pulse transmitted from a site is reflected an object and then received back at that site.

OHIBITED AREA—Designated airspace within which the ght of aircraft is prohibited.

RGET—The indication displayed on a radar scope resulting from a primary radar return or a radar beacon ply.

ANSITION AREA—An area extending upward from 1,200 t or higher above the surface when designated to nplement control zones; from 700 feet above the surce when designated in conjunction with an airport with control zone but for which an instrument approach cedure has been prescribed; or from 1,200 feet or her above the surface when designated in conjuncn with airway route structures or segments. Unless erwise limited, transition areas terminate at the base the overlying control area or Continental Control Area.

ANSPONDER—The airborne radar beacon receiver-transter which automatically receives radio signals from interrogators on the ground, and selectively replies h a specific reply pulse or pulse group only to those terrogations" being received on the mode to which it et to respond.

TOR—A heading issued to the pilot for the purpose of oviding navigational guidance by means of radar.

IBILITY, PREVAILING—The horizontal distance at which gets of known distance are visible over at least half the horizon. It is normally determined by an observer or close to the ground viewing buildings or other ilar objects during the day and ordinary city lights night. Under low visibility conditions the observans are usually made at the control tower. Visibility REPORTED IN MILES AND FRACTIONS OF LES in the Aviation Weather Report. If a single ue does not adequately describe the visibility, additional information is reported in the "Remarks" section of the report.

VISIBILITY, RUNWAY—The horizontal distance at which a stationary observer near the end of the runway can see an ordinary light (about 25 candlepower) at night or a dark object against the horizon sky in the daytime. In practice the human observer is used very little for this observation. Instead runway visibility is normally determined by a transmissometer (a photoelectric device calibrated in terms of a human observer). It is REPORTED IN MILES AND FRACTIONS OF MILES in the "Remarks" section of the Aviation Weather Report. A meter in the control tower gives the FAA traffic controller a continuous indication of the runway visibility at transmissometer locations. Runway visibility, where available, is used in place of prevailing visibility for the determination of minimums on a transmissometer runway. This program is gradually being replaced by Runway Visual Range at transmissometer locations.

VISIBILITY, RUNWAY VISUAL RANGE (RVR)—An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end; it is based on the sighting of either high intensity runway lights or on the visual contrast of other targets—whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal, AND NOT SLANT, visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is REPORTED IN HUNDREDS OF FEET. At the present time, RVR observations are automatically furnished to FAA tower controllers at approximately 25 locations from readout equipment connected to the remote transmissometer installation. RVR provides an additional operating minimum at fields equipped with specified navigational aids. For example, at the present time the RVR minimum at Newark is 2000 ft. (in combination with a minimum descent altitude of 218' MSL) for both takeoffs and landings regardless of the reported ceiling and visibility.

VOT (VERY HIGH FREQUENCY OMNITEST)—A ground originating test signal used to check the accurate alignment of a VOR receiver.

ABBREVIATIONS

Note: "s" may be added for plural, or as appropriate.

acft..... aircraft
adjt..... adjacent
admin.... administration
AGL..... above ground level
Airgi..... Airguide
AL..... Approach and Landing Chart
alt..... altitude
amdt..... amendment
ANRA.... air navigation radio aids
ant..... antenna
apch..... approach
apchg..... approaching
aprxly.... approximately
arpt..... airport
arr..... arrival/arrive
ARTCC... Air Route Traffic Control Center
ASDE..... airport surface detection equipment
ATC..... air traffic control
ATIS..... Automatic Terminal Information Service
auto..... automatic
aux..... auxiliary
avbl..... available
awy..... airway

BC..... back course
bcn..... beacon
bcst..... broadcast
bldg..... building
bndry..... boundary
brg..... bearing
btn..... between

clsd..... closed
clrnc..... clearance
cntr..... center
Co..... county
comm.... communication
comsnd... commissioned
comsng... commissioning
config..... configuration
constr.... construction
constrd... constructed
cont..... continuous/continuously
crs..... course
CS/T..... combined station/tower
ctc..... contact
ctl..... control
ctld..... controlled

dalgt..... daylight
demsnd... decommissioned
demol.... demolition
DF..... direction finder
discntd... discontinued
DME..... UHF standard (TACAN compatible) distance measuring equipment
dptg..... departing
dptr..... departure

efctv..... effective
elev..... elevation
emgcy.... emergency
eng..... engine
eqpmt.... equipment
excp..... except
extsn..... extension
extsv..... extensive

facil..... facility
flashg.... flashing
fld..... field
flt..... flight
flwg..... following
FM..... fan marker
fone..... telephone
freq..... frequency
FSS..... Flight Service Station

GCA..... groundcontrolled approach
gnd..... ground
GWT..... gross weight

H..... Non-directional radio beacon (homing), power 50 watts to less than 2000 watts
HH..... Non-directional radio beacon (homing), power 2000 watts or more
hi-..... high-
hr..... hour
hvy..... heavy
hwy..... highway

ident..... identification
IFF..... Identification Friend from Foe
IFR..... Instrument Flihgt Rules
IFSS..... International Flight Service Station
ILS..... instrument landing system
imdtly.... immediately
inbnd..... inbound
indef..... indefinitely
info..... information
inop..... inoperative
inst..... instrument
int..... intersection
intl..... international
intsv..... intensive

J-bar..... jet runway barrier
kc..... kilocycles

lat..... latitude
lcl..... local
lclzr..... localizer
lctd..... located
lctn..... location
LFR..... Low/Medium frequency radio range
lgt..... light
lgtd..... lighted
lgtg..... lighting
LMM..... compass locator at middle marker ILS
lnd..... land
lndg..... landing
LOM..... compass locator at outer marker ILS
long..... longitude

M..... magnetic (after a bearing)
MAA..... maximum authorized altitude
mag..... magnetic
maj..... major
max..... maximum
mc..... megacycles
MCA..... minimum crossing altitude
MEA..... minimum enroute IFR altitude
meml..... memorial
MH..... Non-directional radio beacon (homing), power less than 50 watts
mi..... mile
min..... minimum or minute
MM..... middle marker ILS
MOCA.... minimum obstruction clearance altitude
mod..... modernization/modification
MRA..... minimum reception altitude
mrkd..... marked
mrkg..... marking
MSL..... mean sea level
mun..... municipal
natl..... national
navaid.... navigational aid
ngt..... night
nmi..... nautical mile/s
No..... number

obstn..... obstruction
oct..... octane
OM..... outer marker ILS
operg..... operating
opern..... operation
outbnd.... outbound

patn..... pattern
permly.... permanently
p-line..... pole line
pwr..... power

quad..... quadrant

rad..... radial
RAE..... Royal Aircraft Establishme visual glide slope indica
RAPCON.. radar approach control (US/
RATCC... radar air traffi control cent (NAVY)
rbn..... radio beacon
rcv..... receive
rcvg..... receiving
rcvr..... receiver
rdo..... radio
reconstr... reconstruction
REIL..... runway end id tification lig
relctd..... relocated
rgt..... right
rng..... range
rnwy..... runway
ruf..... rough
RVR..... runway visual range
RVV..... runway vis bil values

SIF..... Selective Iden fication Fe ture (of t basic Mark radar beac system)
sked..... schedule
smi..... statute mile s
SR..... sunrise
SS..... sunset
stn..... station
sys..... system

T..... true (after a bearing)
TACAN... UHF navigational facility—omnidirectional course and distance information
tet..... tetrahedron
tfc..... traffic
t-of..... take-off
tmprly.... temporarily
tmpry.... temporary
trans..... transcribed
trml..... terminal
trng..... training
tsmt..... transmit
tsmtg .... transmitting
tsmtr..... transmitter
TV..... television
twr..... tower
txwy..... taxiway
UFN..... until further notice
unavbl.... unavailable
uncltd .. uncontrolled
unlgtd.... unlighted
unmrkd... unmarked
VASI.... visual approach slope indicator
vcnty.... vicinity
VFR ..... visual flight rules
VOR ..... VHF navigational facility—omnidirectional, course only
VOR-DME collocated VOR navigational facility and UHF standard navigational facility and UHF standard distance measuring equipment
VORTAC.. collocated VOR and TACAN navigational facilities
VOT a VOR Receiver Testing Facility
vsby ..... visibility
wea..... weather
WB..... Weather Bureau
WIP..... work in progress
wt..... weight

THE NOTAM CODE

INTRODUCTION

The NOTAM Code provides for coding NOTAM information to reduce telecommunications transmission time and reduce translation difficulties in the International Service.

A NOTAM Code group contains 5 letters. The first letter is always the letter Q to indicate a code abbreviation for use in the composition of NOTAMs. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

NOTAM code significations shall be amplified or completed where necessary by adding appropriate words, contractions, frequencies, location identifiers, place names, or figures. Approved abbreviations shall be used in preference to plain language whenever possible. The information necessary to complete a NOTAM code group, as indicated by a blank space, shall be given except when (1) the blank spaces are enclosed within parentheses or brackets to indicate their completion is optional; e.g., LHX QIEIK 15 MIN. Meaning: the LaJunta Colorado airport beacon is available on request at 15 minutes' notice; or (2) an alternative meaning shown in parentheses is selected and the blank space in this alternative meaning is complete; e.g., QAPOK 116.9. Meaning: the radio range on 116.9 Mc. resumed normal operation.

Expressions or words in parentheses which do not include blank spaces have the following significances:

(1) When following a blank space, signifies the explanation of information to be used in filling the preceding blank.

(2) When following a word or expression, signifies an alternative to the word or expression.

CODE GROUP FORMATION

5-letter NOTAM code groups are formed in the following manner:

(1) First Letter.—The letter Q.

(2) Second and Third Letters.—The appropriate combination of 2 letters, selected from the "2nd and 3rd letters" section of the code, identify the facility, service or danger to aircraft in flight being reported. The *second* letter has been restricted to A, E, I, O, or U. These letters also serve to classify the aid, facility, or service described: i.e., the letters A and E signify radio aids. The letter I signifies lighting facilities. The letters O and U signify airports, search and rescue, and dangers to aircraft in flight.

(3) Fourth and Fifth Letters.—The appropriate cominbation of 2 letters, selected from the "4th and 5th Letters" section, denote the operating status of the facility, service, or danger to aircraft being reported. The *fourth* letter has been restricted to A, E, I, O, or U.

DECODE

SECOND AND THIRD LETTERS

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	RADIO AIDS		
AA	. . . [*specify TWR, APP, ACC or FIC*] air traffic services receiver . . . kc/s. (*or* . . . Mc/s.).	AY	200 Mc/s. Distance Measuring Equipment.
AB	Inner marker, Instrument Landing System.	AZ	Station location marker VHF.
AC	. . . [*specify TWR, APP, ACC or FIC*] air traffic services transmitter . . . kc/s. (*or* . . . Mc/s.).	EA	En-route Surveillance Radar.
AD	Middle marker, Instrument Landing System.	EB	Broadcasting station (public).
AE	Outer marker, Instrument Landing System.	EC	CONSOL or CONSOLAN station.
AF	Fan-type marker.	ED	DECCA or DECTRA.
AG	Glide path, Instrument Landing System.	EE	Ground Controlled Approach System (GCA).
AH	Non-directional Beacon (NDB).	EF	Terminal Area Surveillance Radar.
AI	Instrument Landing System (ILS).	EG	Gee.
AJ	Radio range (other than VOR) and associated voice communications.	EH	Elevation element of the Precision Approach Radar (PAR).
AK	Radio receiving facilities.	EI	Monitoring device associated with . . . (*specify*) radio aid.
AL	Localizer, Instrument Landing System.	EJ	All air-ground facilities (except . . .).
AM	Locator, inner, Instrument Landing System.	EK	Precision Approach Radar (PAR).
AN	TACAN.	EL	LORAN.
AO	Locator, outers, Instrument Landing System.	EM	Azimuth element of the Precision Approach Radar (PAR).
AP	VOR (VHF Omnidirectional Radio Range) and associated voice communications.	EN	DME (1000 Mc/s. Distance Measuring Equipment).
AQ	VOR (VHF Omnidirectional Radio Range).	EO	Beam Approach Beacon System (BABS).
AR	Radio range (other than VOR).	EP	Radar responder beacon.
AS	Radio range leg.	EQ	Surveillance Radar Element (SRE) of GCA.
AT	Attentional signal.	ER	Radio transmitting facilities.
AU	Meteorological communications . . . kc/s. (*or* . . . Mc/s.).	ES	All radio-navigation facilities (except . . .).
AV	Voice communications . . . kc/s. (*or* . . . Mc/s.).	ET	Teletypewriter transmitting facility (ies).
AW	Unassigned.	EU	Radio direction-finding station . . . (*frequency or type*).
AX	Non-directional Beacon (NDB) and voice facility.	EV	VORTAC (the combination of VOR and TACAN).
		EW	Ground interrogator, SSR system.
		EX	Unassigned.
		EY	Ground movement radar.
		EZ	Unassigned.
	LIGHTING FACILITIES		
IA	Boundary lights.	ID	Channel lights.
IB	Aerodrome beacon.	IE	Light beacon.
IC	Unassigned.	IF	Floodlights.

DECODE

SECOND AND THIRD LETTERS (Contd.)

2nd & 3rd Letters	SIGNIFICATION	2nd & 3rd Letters	SIGNIFICATION
	LIGHTING FACILITIES (Contd.)		
IG	Angle-of-approach lights.	IP	Approach light system [type . . . {*specify LSA (low intensity) or LSB (high intensity*}] (for runway number . . .).
IH	Taxiway lights.		
II	Hazard beacon.		
IJ	Threshold lights (for runway number . . .).	IQ	Runway alignment beacon.
IK	Flares.	IR	Runway lights [type . . . {*specify LSA (low intensity) or LSB (high intensity)*}] (for runway number . . .).
IL	All landing area lighting facilities.		
IM	Identification beacon.	IS	Strip lights [for strip . . . (*number or magnetic direction*)].
IN	Unassigned.	IT–IY	Unassigned.
IO	Obstruction lights.	IZ	Airway course lights.
	AERODROMES — SEARCH AND RESCUE — DANGERS TO AIRCRAFT IN FLIGHT		
OA	Land aerodrome.	UB	Mooring buoys.
OB	Beaching facilities.	UC	Unassigned.
OC	Water aerodrome.	UD	Prohibited, restricted or danger area designated as . . . (*name or reference identification*).
OD	Meteorological forecast service.		
OE	Meteorological observation service.		
OF	Meteorological watch service.	UE	Aircraft.
OG	Runway arresting gear.	UF	Fixed balloons.
OH	Helicopter landing area.	UG	Bombing or aerial depth charge dropping.
OI–OL	Unassigned.		
OM	All runways [except number(s) . . .].	UH	Air exercises (*or* flying displays).
ON	Stopway for runway number.	UI	Gun or missile firing.
OO	Taxiway(s).	UJ	Glider flying.
OP	Rescue vessel.	UK	Demolition of explosives.
OQ	Ocean Station Vessel.	UL	Landing direction indicator.
OR	Refueling [. . . type fuel(s) *or* . . . octane].	UM	Mooring and docking facilities.
		UN	Parachute jumping exercises.
OS	Search and rescue aircraft [*specify VLR, LRG, MRG, SRG or HEL*].	UO–UP	Unassigned.
		UQ	Apron.
OT	Crash and fire fighting facilities.	UR	Runway(s) and number(s).
OU	Unassigned	US	Strip . . . (*number or magnetic direction*).
OV	. . . [*specify TWR, APP, ACC or FIC*] air traffic service.	UT	Grass landing area.
		UU	Unassigned.
		UV	Fog dispersal equipment.
OW–OY	Unassigned.	UW–UY	Unassigned.
OZ	Warship.	UZ	Runway threshold (number . . .).
UA	Alighting area.		

DECODE
FOURTH AND FIFTH LETTERS

4th & 5th Letters	SIGNIFICATION	4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES		
AA	Unassigned.	**EC**	Characteristics *or* identification *or* radio call sign changed to . . .
AB	Usable for length of . . . and width of . . .	**ED**	Operating frequency(ies) will be changed to . . . kc/s. (*or* . . . Mc/s.) effective . . . (*date/time*).
AC	Covered by snow to a depth of . . . NOTE.—*This snow is not compacted.*	**EE–EG**	Unassigned.
AD	Cleared of soft snow, full length and width.	**EH**	Not heard.
AE	Totally free of snow and ice.	**EI–EL**	Unassigned.
AF	Covered by [. . . (*type*)] ice to a depth of . . .	**EM**	Military operations only.
AG–AH	Unassigned.	**EN**	Not available due to . . . (*specify reason*) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
AI	Operating without tone modulation.	**EO**	Unassigned.
AJ	Operating without coding.	**EP**	Available on prior permission (of . . .) only.
AK	Covered by compacted snow to a depth of . . .	**EQ–ER**	Unassigned.
AL	Operating on reduced power.	**ES**	Out of service from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] due to the following condition(s) . . .
AM	Snow clearance in progress [estimated time of completion is . . . (*date/time*)].	**ET**	Test operation only. NOT for operational use.
AN	Grass cutting in progress [estimated time of completion is . . . (*date/time*)].	**EU–EV**	Unassigned.
AO	Marked by . . .	**EW**	Completely withdrawn.
AP	Work is in progress [estimated time of completion is . . . (*date/time*)].	**EX**	Unassigned.
AQ	Work completed.	**EY**	Is outside the limits of its assigned ocean station.
AR	Snow clearance completed.	**EZ**	Is within the limits of its assigned ocean station.
AS	Grass cutting completed.	**IA–IB**	Unassigned.
AT	Sanding is in progress [estimated time of completion is . . . (*date/time*)].	**IC**	Report of apparent unreliability or track displacement hereby is cancelled.
AU	Appears unreliable.	**ID**	Available on request to . . .
AV	Covered by ice patches.	**IE**	Unassigned.
AW	Height of snowbanks is . . . (*figures and units*).	**IF**	Flight checked and found reliable.
AX	Braking action is . . . (A = *good*, B = *medium*, C = *poor*).*	**IG–IJ**	Unassigned.
AY	Are to avoid area, radius of danger being . . . (about the point . . .).	**IK**	Available on request (to . . .) immediately [*or* at . . . (*time period*) notice].
AZ	Will take place from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] (on the days of . . . between the hours of . . . and . . .) at . . . (*location*) (within the sector of . . . and a radius of . . .) at . . . height above . . . (*datum*).	**IL**	Hours of service are now . . .
		IM	Unassigned.
		IN	Operative (*or* re-operative), activated (*or* re-activated) from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
EA	Unassigned.	**IO**	Operating normally.
EB	Location change to . . . effective . . . (*date/time*).		

DECODE

FOURTH AND FIFTH LETTERS (Contd.)

4th & 5th Letters	SIGNIFICATION
	HAZARD OR STATUS OF OPERATION OR CONDITION OF FACILITIES (Contd.)
IP	Track(s) reported to be displaced (. . . degrees) (. . . direction) of published bearing(s), other tracks probably have shifted.
IQ	To be used as radio beacon only.
IR	Magnetic track(s) towards station is are now . . . [will be . . . at . . . (*date/time*)].
IS	Operative (or *re*-operative) subject to conditions/limitations already published.
IT	Aircraft restricted to runways and taxiways.
IU	Unserviceable for aircraft heavier than . . . tons.
IV	Unsafe from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
IW–IZ	Unassigned.
OA–OF	Unassigned.
OG	Operative but ground checked only, awaiting flight check.
OH–OJ	Unassigned.
OK	Resumed normal operation.
OL	Track(s) ground checked, approved for instrument flying.
OM	Shut down for maintenance from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)]—disregard all signals.
ON–OQ	Unassigned.
OR	Previously promulgated shutdown has been cancelled.
OS	Unassigned.
OT	New facility in operation.
OU	Operating without interruption for voice transmissions from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
OV–OW	Unassigned.
OX	Exercising at . . . (*date/time, location and height above the specified datum*).
OY–OZ	Unassigned.
UA	Closed to all operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UB–UC	Unassigned.
UD	Closed to all night operations from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)].
UE	Unassigned.
UF	Closed for an unknown duration due to flood.
UG	Closed for an unknown duration [*or* until . . . (*date/time*)] due to ice or snow.
UH	Closed for an unknown duration [*or* until . . . (*date/time*)] due to thaw.
UI	Closed from . . . (*date/time*) for an unknown duration [*or* until . . . (*date/time*)] for maintenance.
UJ–UL	Unassigned.
UM	Operating in an unmonitored status.
UN–US	Unassigned.
UT	Operative but caution advised due to following condition(s) . . .
UU	Suitable for . . . (*specify*) equipped aircraft only.
UV	Covered by slush to a depth of . . .
UW	Covered by water to a depth of . . .
UX–UZ	Unassigned.

NOTICE TO THE EDITOR

This sheet should only be used to submit changes, corrections or comments concerning the Airman's Information Manual. Just tear out, fold, staple and mail. No postage is necessary.

NOTE: All inquiries and information concerning subscriptions to these publications, and change of address should be sent to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402

Indicate Appropriate Section. Date .. ..

- ☐ Section I, Basic Flight Manual
- ☐ Section II, ATC Operations and Procedures
- ☐ Section III, Flight Data and Special Operations
- ☐ Section III-A, Notices to Airmen
- ☐ Section IV, Airport Directory
- ☐ Section IV-A, Airport/Facility Directory

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AIRMAN'S INFORMATION MANUAL
PUBLICATION SCHEDULE—FY 1965

Copy for inclusion in the Airman's Information Manual must be received no later than 001 EST on the dates reflected in the schedules listed below, in order to assure its publi-tion in the issue specified. Although the dates listed are the actual cut-off times, every fort should be made to submit copy as far in advance of these dates as possible.

Latest Dates for submission of copy for each issue and Section

Effective Date	Section I	Section II	Section III	Section III—A	Section IV	Section IV—A
March 4		February 8	February 16	February 16		February 16
March 18				March 8		
April 1			March 15	March 15		March 15
April 15				April 5		
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July 22			July 2	July 2		July 2
August 5				July 30		
August 19		July 26	August 2	August 2		August 2
September 2				August 23		

PARACHUTE JUMPING AREAS

The following tabulation lists all known parachute jumping sites in the United States. Unles otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

ALABAMA

Fort Rucker, Cairns AAF: 5 mi radius. Week-ends and holidays 1200–SS; intermittently week-days. Up to 14,500′ MSL.

Headland Mun Arpt: 1 mi E. 1200 LST to sunset. Sundays. Up to 12,000′.

ARIZONA

Glendale, Luke AFB: Daily 1500Z to 0500Z. Up to 5100′ MSL.

Marana Air Park: Daily weekends, and evenings. Up to 6,500; occasionally 10,000′ MSL and 24,000′ MSL.

Phoenix, Deer Valley Arpt: 4 mi WSW. Up to 14,000′ MSL; 3 mi ESE. Up to 7000′ MSL.

Scottsdale, Thunderbird Academy Airport: 1 mi W. Up to 10,000′ MSL.

Tucson, Ryan Fld: Up to 12,000′.

ARKANSAS

Clarksville Arpt: Weekends; contact Ft. Smith Rdo for info concerning unscheduled ngt and holiday activities. Up to 13,000′ MSL.

Fayetteville: 1 mi NNW Razorback Arpt. Mon thru Sat 2200GMT–sunset. Suns and holidays 1400 GMT– sunset.

Jonesboro Mun Arpt: Weekends, with unscheduled parachuting week days. For confirmation of activities contact Walnut Ridge FSS.

Marion: 1 nmi W. 1500Z–SS, Sat and Sun. Up to 13,000′ MSL.

CALIFORNIA

Arvin: 1½ mi SW. 0800–SS Sat and Suns. Up to 15,000′ MSL.

Avenal Arpt: 0.5 mi W of rnwy, weekends and holidays 1600 to 0300Z occasional jumps week days 0000–0300Z; up to 10,000′.

Black Point: Sky diving weekends up to 12,500′.

Black Point: 6 mi NE Hamilton AFB. Mon thru Sat up to 1500′ MSL.

Calistoga Arpk: Weekends.

Camp Pendleton, Oceanside (San Diego Co.): E half of V23/V165 arwys between San Clemente and Oceanside. All drops made within the Oceanside Corps Maneuver Area from 1,200 to 4,500′. Day and ngt. Current info may be obtained from FSS San Diego, Calif.

Clear Lake: Into Clear Lake at 39°05′N, 122°51′W. Mon thru Sat. Up to 4400′ MSL.

El Centro NAF: 0700–1600P (1500–2400Z) Mon-Fri. Up to FL 400.

Elsinore, Skylark Fld: Up to 13,700′ MSL. Moderate weekdays, hvy weekends and holidays.

Fort Irwin (Bicycle Lake AAF): Weekends, holidays, and occasionally weekdays. Up to 12,000′ MSL.

Fort Ord (Fritzsche Control Zone): Free fall parachute activit weekends, holidays, and occasionally wkdays, fro alts ranging from 2800′–15,000′, opening at absolut alts of 2000′–2500′. Center of drop zone lctd at 36°38′N 121°46′W in Restricted Area R–2511. Ctc Fritzsche Tw for advisory info.

Fresno Air Terminal: 5½ mi NE. Sundays. From 12,500

Fresno, Chandler Arpt: 5 mi W. Heavy activity weekend holidays, and occasionally weekdays. Up to 15,000

Hollister Mun: 1 mi NE. Weekends and occasionally wee days. 12,500′ MSL.

Lancaster, Wm. J. Fox Fld: Weekends and holidays, on half mile S of arpt. Up to 15,000′ MSL.

Lake Berryessa: Lat 38°31′, 122°12′. Mon thru Sat. Up t 2000′ MSL.

Lakeside (San Diego Co.): 8 mi ENE Gillespie Fld, Santa Calif., two mi out of ctl area. Daily, greatest activit weekends. Up to 15,000′.

Lincoln Mun Arpt: Weds 1200 to 2200 and weekends an holidays from sunrise to 2200, 1½ to 2 mi SW.

Livermore, Sky Ranch Arpt: Greatest activity on weekend

Lodi, Linds Arpt: Weekends. 0.5 mi NE on V23 arwy bt Linden and Sacramento VORs. Up to 9,500′.

Lost Hills, Kern Co. No. 9 Arpt: Daily up to 16,000′ MSL.

Milpotas, King Skylanes Arpt: 3 mi E; Weekends. Fro 12,500′.

Ojai, Henderson Arpt: Weekends from 14,000′ MSL 3 m SW.

Ojai, Lake Casitas: 1 mi NE. Up to 14,500′ MSL. Week ends and holidays.

Piru: Tues-Fri. 2 mi E. Up to 14,500′.

San Diego, Brown Fld: NW corner of fld. Weekdays, morn ing hrs. Up to 15,000′.

San Diego–County Arpt (Gillespie Fld): Up to 20,000′ MSL chute opening alt aprxly 2700–3000′ MSL in vcnty o arpt.

San Diego, Otay Reservoir: Weekdays and ngts. Up t 15,000′.

San Diego Co.: 5 mi ESE Brown Fld, adj Mexico. Week days and ngts. Up to 15,000′.

Santa Maria Arpt: Weekends and holidays. Up to 15,000 MSL. 6 NW.

Schellville, Sonoma Valley Arpt: Sunrise to sunset Suns.

Taft Arpt: About 6 mi E. Daily, up to 20,000′.

COLORADO

Aurora, Colfax Air Park: 2 mi W and 2 mi SE. Sat, Sun and holidays. Up to 18,500′ MSL.

Colorado Springs, Butts AAF: Weekends btn 2300 an 20,000′.

Colorado Springs, USAF Academy Air Strip: Dalgt hrs Sat Sun and holidays; week days 0500–0800 and 1600–19 Up to 15,000′ MSL.

Greeley, Weld Co Mun Arpt: Weekends 1500–0200. 4½ m SSE from 7500′ AGL.

tleton, Columbine Arpt: 2 mi S. Up to 13,500′ AGL.
ngmont Mun Arpt: Weekends and holidays up to 15,000′.

CONNECTICUT

rlington, Johnnycake Arpt: Sat & Suns 1600–2200Z. Up to 5000′ AGL.

DELAWARE

lmer-State Line Arpt: 4 mi radius. Up to 12,500′. Weekends and holidays.
byville, American Skyways Arpt: Weekends and holidays. From 15,000′.

FLORIDA

chan Arpt: 7 mi S of Venice. Weekends and holidays. Up to 15,500′.
wiston, Airglades Arpt: Up to 12,000′.
and Mun Arpt: Up to 7,000′ daily and weekends.
in AFB Aux #9 (Hurlburt Fld): Unscheduled. Up to 12,500′.
t Lauderdale: 2 mi NE rdo bcn. Weekends and holidays. Up to 12,000′.
mestead AFB: Occasionally. Up to 1,000′ MSL.
wey Arpt: Weekends. Up to 10,000′.
simmee Arpt: Daily and weekends. Up to 12,000′.
rianna Mun Arpt: 5 mi radius; weekends during daylight hrs and intermittently daily Mon thru Fri and at ngt. Up to 12,500′.
atka, Kay Larkin Arpt: Weekends.
nford NAS: Sat, Sun and holidays; weekdays 1500–SS. Up to 12,500′.
nta Rosa Island: Daily. Up to 12,500′.
atilla Arpt: 32 NM 325° rad Orlando VOR. Weekends 1700Z to 2230Z. Up to 7500′.
nice Arpt: 7 mi S. Weekends and holidays. Up to 15,500′.
liston Mun Arpt: Weekends.
shyrhills Arpt: Sundays. Up to 12,500′.

GEORGIA

veland, White Co Arpt: Weekends. Up to 12,500′.
erson, Terrell Co Arpt: Intermittently daily and weekends. Up to 10,000′.
ckbridge, Bellah Fld: Weekends. Up to 15,500′.
la Rica, Flying S Ranch: 2 mi NE. Sats and Suns. Up to 12,500′ AGL.

ILLINOIS

do, Mercer Co Arpt: Evening and weekends. Up to 10,000′.
on, Civic Memi Arpt: Weekends, holidays and occasional weekdays. Up to 12,500′.
ese Arpt: ½ mi N. Up to 7,000′.
cago, Hammond Arpt: Weekends. Up to 12,500′.
rville, Vermillion Co Arpt: Weekends. Within 1½ mi. Up to 12,500′ MSL.
ron Arpt: Daily.
lsboro: 3 mi SSE. Weekends, holidays and occasionally weekdays. Up to 12,500′.
nkakee, Greater Kankakee Arpt: Weekends. From 4000′.

INDIANA

nsey, Glen Aire Ranch Arpt: Weekends within 5 mi radius. Up to 14,500′.
Rising Sun Arpt: Sundays. Within 5 mi radius. Up to 14,500′.
Seymour, Freeman Fld: Weekends and holidays. Up to 18,000′.

IOWA

Council Bluffs Mun Arpt: 1 mi S; up to 15,000′.
Muscatine Arpt: 10 mi radius. Evening and weekends. Up to 12,500′.

KANSAS

Fort Riley Military Reservation: Sky diving operations to 10,000′, weekends and holidays.
Maize Arpt: Weekends and intermittently at other times. Up to 22,000′. Occasionally ngts.
Salina Mun Arpt: Evenings and weekends. From 12,500′.

KENTUCKY

●**Fort Knox:** 3 mi SW of Godman AAF weekends and holidays, 1300–1700. Up to 10,000′.
Henderson City Co. Arpt: 149° radial EVV VOR 8.1 nmi. Up to 10,000′ MSL.
Hopkinsville, Christian Co. Arpt: 4 mi NNE. Tues evenings and Weekends. Up to 12,500′.
Madisonville, Athey Arpt: Suns and holidays 0700–SS. Up to 12,500′.
Thornhill: 133° radial CVG VOR 15 nmi. Weekends. Up to 12,000′ MSL.

LOUISIANA

De Ridder, Beauregard Parish Arpt: Sky diving from 12,000′.
Fort Polk, Polk AAF: 2 nmi radius.
Hammond Arpt: Intermittently. Up to 10,000′.

MAINE

Augusta State Arpt: Sundays, 3 mi SE.
Sanford: Unscheduled jumps from 2700′ to 12,500′.
Wiscasset Arpt: Weekends. Up to 12,000′.

MARYLAND

Cumberland, Mexico Farms Arpt: Up to 3000′. Most activity weekends.
●**Edgewood:** 35 smi on the 53° radial from Baltimore VORTAC. Weekends and evenings, occasionally weekdays. Up to 10,000′.
Eldersburg, Robert E. Lee Arpt: 3 mi S EMI VOR. Up to 12,500′ MSL. Most activity weekends.
Elkton, Lovett Arpt: Weekends. Up to 3000′.
Mitchellville, Freeway Arpt: 4 mi E. Weekends and holidays. Up to 12,000′.
Nottingham: 2 mi out on VOR radial 031. Weekends and Weds to 10:00 P.M. up to 20,000′.

MASSACHUSETTS

Agawam: Evenings, weekends and holidays.
Bedford, Hanscom Fld: 1300–2000Z Thur and Sat. Up to 1500′.
Fort Devens AAF: Tues and Thurs, 0800–1630 Sat, up to 13,500′ MSL, lat 42°28′, long 71°42′.
Mansfield Mun Arpt: 2–3 NM W (vcnty of old Attleboro Arpt). Up to 7,000′.
Mansfield Mun Arpt: Unscheduled. Mostly weekends and holidays. Up to 12,000′.

Maynard: 1 mi SW within 1 mi radius of lat 42°25′N, 71°20′W. Airdrop of personnel and eqpmt conducted daily 1300Z–0200Z at Natrick Labs Annex. Up to 2500′.

Montague, Turners Falls Arpt: Weekends and holidays. Up to 13,000′.

Orange Mun Arpt: 2 mi radius. Day and night. Most activity weekends and holidays; moderate weekends. Up to 14,500′.

Taunton Mun Arpt: Weekends. Up to 7200′.

MICHIGAN

E. Tawas, Iosco Arpt: Up to 13,500′.

Gregory, Richmond Fld: Weekends.

Houghton Co. Memorial Arpt: NOTAMS will be issued when activated.

Marshall, Brooks Fld: Weekends. Up to 13,000′.

Monroe: 5 mi S. Weekends. Up to 15,500′.

Muskegon Northside Airport: Up to 15,000′.

Plainwell, Otsego-Plainwell Mun Arpt: Sundays.

Saginaw Arpt: Weekends. Up to 13,000′.

Saline Arpt: 1 mi SW. 0800 to SS Sats and Suns, and holidays. Up to 18,000′.

MINNESOTA

Aitkin Mun Arpt: Weekends.

Bethel: 2 mi E. Weekends. Up to 12,000′. Summer months: Wed afternoons.

Minneapolis, Flying Cloud Arpt: 5 SM S. Up to 1500′ MSL.

MISSISSIPPI

Lucedale, Farmco Arpt: Weekends. Up to 12,000′.

MISSOURI

Houston Memi Arpt: Weekends. Up to 12,000′ MSL.

St. Louis, Lobmaster Arpt: Weekends and holidays. Up to 11,000′.

MONTANA

Hamilton Arpt: 0.4 mi E. Weekends. Up to 11,000′.

Missoula Co Arpt: Dalgt hrs. Sky divers Club altitudes to 12,000′ MSL—Miller Creek Area lat 46°47′ to 46°49′ long 114°01′ to 114°05′. U.S. Forest Service Practice Areas . . . altitudes to 1500′ AGL small areas vcnty of Lavelle Creek lat 47°00′ long 114°03′; Mill Creek lat 47°02′ long 114°12′; Sherman Creek lat 46°54′ long 114°12′; O'Brien Creek lat 46°52′, long 114°08′; Hayes Creek lat 46°49′ long 114°06′; Ninemile Creek lat 47°05′ long 114°23′; Fournier Creek lat 47°01′ long 114°11′; Miller Creek lat 46°43′ long 113°54′; Wild Horse Ridge lat 46°54′ long 114°19′.

NEBRASKA

Crete Mun Arpt: Weekends and holidays, sunrise to sunset. Up to 12,500′ AGL.

Walton: 2.5 E. Weekends and holidays. Sunrise to sunset. Up to 12,500′ AGL.

NEVADA

Carson City Arpt: Weekends. Up to 12,500′ MSL.

Las Vegas, Thunderbird Fld: 3.5 mi WSW 7 days a wk. Up to 12,500′.

NEW JERSEY

Blairstown Arpt: Daily excp Tues. From 13,000′.

Flemington, Adams Arpk: Dalgt hrs. Weekends. Up t. 25,000′.

Hightstown, Applegrath Landing Strip: Weekends. Up t 12,500′.

Lakehurst NAS-West Fld: Up to 12,000′.

Lakewood Arpt: Within 2 mi radius. Up to 12,500′.

Manville Kupper Arpt: Dalgt hrs daily. Up to 25,000′.

Mt. Holly, Cameron Arpk: Weekends. Up to 12,500′.

NEW YORK

East Moriches, Spadaro Arpt: Daily. Up to 12,500′.

Erie Airways: 22.5 NM SW of BUF VOR on V14, 3 mi N of Angola, N.Y. SR–½ hr past SS. Up to 13,5 MSL.

Fulton Arpt: Within 1 mi radius. Weekends and holiday Up to 15,000′.

Greene Arpt: Within 5 mi radius. Weekends and holida till 1 hr after SS. Wed 1500–1 hr after SS. Up 15,000′.

Newburgh, Stewart AFB: 9 NM NNW dalgt hrs, daily. U to 13,000′ AGL.

•Northville, Red Barn Arpt: Weekends.

Olean Mun Arpt: 3 nmi NW. Daily. Up to 14,000′ MS

Randolph Arpt: Daily. Up to 15,000′.

Stormville Arpt: Weekends and holidays. Up to 12,00

NORTH CAROLINA

•Charlotte, Brockenborough Arpt: 5 mi N. Weekends. Up 2600′—14,000′.

Erwin Arpt: Weekends.

Greensboro, Air Harbor Arpt: Weekends.

New River MCAF: On V157 1100–0300 daily from 23,5

Shelby Mun Arpt: Sat and Sun. Up to 12,000′.

Winston-Salem Reynolds Arpt: 5½ mi E. Sat and Suns. U to 14,000′ MSL.

NORTH DAKOTA

Grafton Mun Arpt: Weekends. 2 nmi radius of a point nmi E of arpt. Up to 13,500′.

OHIO

Bucyrus, Port Bucyrus Arpt: Weekends. Up to 12,500′.

Circleville: 5 mi NE. Sat and Sun 1600Z to SS. Up 12,000′.

Columbus Mun Arpt: 17 mi SW. Evenings except Mon an Fri; weekends and holidays. Up to 10,000′ AGL.

Columbus Air Park: Weekends SR–SS. Week days ev nings. Up to 25,000′.

Elyria, Nimrod Arpt: 2200Z thru 0400Z Mon thru Fr 1600Z thru 0400Z Sat and Sun. Up to 12,500′ AG

Fostoria, Snyder Arpt: Weekends and holidays. Intermi tently during the wk. Up to 12,000′ AGL.

Geneva, Germack Arpt: 3 mi SE Suns 1600Z–0200Z. Up t 9,000′.

Jefferson Arpt: Suns 1200 to 2100 EDT. Up to 12,5

Piqua Arpt: Up to 12,000′. Daily.

Shady Grove Arpt: 8 mi SW Akron-Canton arpt. Week ends. Up to 10,000′.

South Dayton Arpt: Up to 18,000′. Daily.

pringfield Arpt: Wed, Sat and Suns. Up to 12,500′.

Waynesville Arpt: Suns. Up to 10,000′.

Williamsburg, Fisher Arpt: Weekends. Up to 20,000′.

Wilmington, Clinton Co AFB: NW corner adjt to rnwys. Up to 2600′ MSL.

onia Arpt: Daily. Up to 20,000′.

oungstown: 2 mi W and 1½ mi S of Parkman, Ohio. Tues, Thurs and weekends. Up to 13,000′.

OKLAHOMA

artlesville (Hi-Way Arpt): 1 mi radius. Weekends and holidays. Up to 12,500′ AGL.

klahoma City, Richards Arpt: Weekends, holidays, occasionally weekdays. Up to 12,500′ AGL.

roud Mun Arpt: Within 5 mi radius of arpt. Up to 12,500′ AGL.

OREGON

toria, Clatsop Co. Arpt: Various alts. Holidays and weekends.

ve Junction, Illinois Valley Airstrip: 2 mi N and 5 mi NE. Periodically June thru Sept. From 2000′ AGL.

dford Arpt: 4 mi W. Light weekdays, moderate to hvy weekends and holidays. Various altitudes.

rland: From various alts, moderate wkdays, hvy wkends and holidays. Jump sites 5 mi S of Hillsboro arpt: 3 mi S of Beaverton arpt; 3 mi E of Scholl Arpt, Orchards, Wash; and 7 mi NNE Scholl Arpt.

rland: ½ mi S of Scholl, Wash.

rland: 3 mi W of Aurora, Oreg.

dmond, Roberts Fld: 10 mi E arpt & 4 mi SW Prineville Arpt. Daily. From 2,000′.

dmond, Roberts Fld: 3 mi S. Week ends. Up to 1500′ AGL.

PENNSYLVANIA

mpbelltown, Reigles Arpt: Daily. Up to 15,000′.

zleton Mun Arpt: 3 mi N. Weekdays 1700 to Sunset; weekends 1200 to sunset. Up to 7500′ MSL.

nnsville NAF: Within 2 mi radius. Up to 13,000′.

eadville, Port Meadville: Within 1.5 mi radius of fld. Weekends. Up to 12,500′.

w Hanover Arpt: Most activities weekends. Up to 12,500′.

ttstown Arpt: Weekends. Up to 8000′.

ading, Gen. Spaatz Arpt: Weekends. Up to 10,000′.

RHODE ISLAND

rene Riconn Arpt: Daily. Up to 11,000′.

SOUTH CAROLINA

rfax Arpt: Weekends. Up to 12,500′.

e Arpt: Low level navigation and parachute drops every day and night, 300′ to 1000′.

nds Corner Mun Arpt: Weekends. Up to 10,000′.

ngeburg Mun Arpt: Weekends and holidays. Up to 12,500′.

nter Arpt: Daily 1800Z to sunset. From 7,200′. Sat, Sun, holidays. Up to 10,000′.

mmonsville, Huggins Arpt: Sat, Sun and holidays. From 10,000′.

lterboro Mun Arpt: Weekends. From 10,000′.

TENNESSEE

Chattanooga, Lovell Fld: 16 mi ESE. Continuously. Up to 10,000′.

Cleveland, Hardwick Fld: 6 mi S. 0900 to 1900 EST 7 days per wk. Up to 12,500′.

Nashville, Cornelia Fort Airpark: Weds, weekends and holidays. Up to 7500′.

Nashville, Cumberland Fld: 6 mi NW. Irregular schedule. Ctc BNA FSS for details.

Tri-City Arpt: 20 mi SSW at Decker Farm Arpt Irregular schedule. Up to 7,000′.

TEXAS

Abilene Dyess AFB: ½ mi W of rnwy. Up to 3300′ MSL.

Amarillo, Palo Duro Arpt: 2 mi radius. Wk ends and holidays SR to SS. Up to 16,000′ MSL.

Caddo Mills Airfield: 18.5 NM due E of Dallas VOR. 0200Z thru 0500Z and 1900Z thru 2300Z Sats and Suns. Up to 2040′ MSL.

Cleburne Arpt: Weekends. Up to 7,500′ MSL.

Ellington AFB: 5 mi S on 350°M. Up to 1500′ MSL.

El Paso: 6 nmi NW Biggs AFB. Up to 17,500′ MSL.

Ganado, Calaway Arpt: Weekends. Up to 10,000′.

Houston, Crosby Arpt: 2 mi W and 8 mi W. Weekend and occasional wk days. Up to 20,000′.

Houston, Waller Arpt: Parachuting, gliding and ballooning within 5 mi radius. Daily, day and ngt. Up to 24,000′.

Lampasas Arpt: Weekends. Up to 14,000′ MSL.

Laredo Mun Arpt: 3 mi radius. Up to 14,000′ MSL.

Mercedes, Rebel Fld: 2 mi rad. Weekends. Up to 12,500′.

Midland: 3 mi N of Ector Co. Arpt, Odessa, Tex. Weekends and holidays, occasionally weekdays. Up to 15,000′ MSL.

San Marcos, Camp Gary AAF: Weekends and holidays. Up to 14,500′.

Taylor Mun Arpt: Weekends.

UTAH

Bountiful, Sky Haven Arpt: Daily. Up to 13,500′ MSL.

HILL AFB: Two times per mo. during dalgt hrs and two times per year during ngt time, 1200′ W of rnwy 14–32. Up to 6000′ MSL.

Ogden: 8 mi N. Up to 12,000′ MSL. Daily.

Sandy, Alta Air Park: Daily. Up to 14,000′ MSL.

Wendover AF Aux Fld: Day and ngt, unscheduled. Up to 5800′ MSL.

VERMONT

Bristol Arpt: 7/8 mi NW. Weekends. SR to SS. Up to 7500′.

Swanton, Austin Arpt: Weekends. Up to 6000′.

VIRGINIA

Blackstone AAF: Daily. Up to 25,000′. Occasional sky diving.

Clover Arpt: 3 mi radius. Suns. Up to 8,000′.

Forest, New London Arpt: Daily. Up to 11,000′.

Hopewell Arpt: Weekends. Up to 9000′.

Leesburg: 2 nmi N or 10 nmi Herndon VOR on 340° radial. Weekends. Up to 12,500′. Occasional ngt jump.

Midland: 8 nmi from CSN VOR on 120° rad. Weekends. Up to 12,000′.

New Castle Intl Arpt: Weekends and holiday. Up to 14,000′.

Oceana NAS: Daylgt hrs. 2000–2400Z daily; 1500–2300Z Sat, Sun & holidays. Up to 12,000′.

Pulaski, New River Valley Arpt: Weekends, holidays, and evening. Up to 13,000′.

South Boston, Tuck Arpt: Within 3 mi radius. Suns 1200 to 1800 EST. Up to 10,000′.

South Norfolk Arpt: Within 5 mi radius. Weekends and evenings. Up to 13,000′.

Suffolk Mun Arpt: Weekends and holidays. Up to 12,000′.

Waynesboro Arpt: Wk ends 1800Z–SS. Up to 10,000′.

West Point Arpt: Weekends and holidays. Up to 12,000′.

WASHINGTON

Enumclaw Arpt: Weekends and holidays. Up to 15,000′.

Issaquah-Sky Ranch Arpt: Wed, Fri and weekends. Up to 7000′.

●**Larson AFB:** ½ mi from end of rnwy 21. Daily. Up to 2500′ AGL.

McChord AFB: 8 mi S of arpt. 1½ mi SE of TCM rbn. Week ends and occasional ngt. Up to 1500′ AGL.

Moses Lake Mun Arpt: 1.5 mi NE. Daily up to 10,000′.

Oak Harbor, Whidbey Island NAS: Weekends. Up to 12,500 MSL.

Puyallup, Thun Fld: Tues, Thurs and weekends. Up to 12,000′.

Richland Arpt: 3 mi W SR to 1 hr after SS. Up to 12,500 AGL.

Snohomish Arpt: Daily. Up to 24,000′ MSL. Occasionally 1 mi SW.

WEST VIRGINIA

Morgantown Arpt: 3 NM SSW. Days.

WISCONSIN

Holstein Arpt (New): Weekends, SR–SS. Sat and Sun Up to 12,500′.

Juneau (Dodge Co Arpt): Weekdays after 1700 Sat and Sun afternoons. Up to 13,500′.

●**Lake Geneva/Natl Sports Parachuting Center:** 0800–1 hr after SS Wed, Thu, Sat, Sun. Up to 15,000′.

Superior Arpt: 5 mi SE weekends SR–SS. Up to 12,500′.

Menomonee Falls, Aero Park Arpt: 2200–SS Mon thru Fri Up to 12,500′ MSL.

Osseo: 3 mi W. Sundays. Up to 10,000′.

PREFERRED ROUTES

A system of preferred routes has been established to guide pilots in ming their route of flight, to minimize route changes during the operaal phase of flight, and to aid in the efficient orderly management of the traffic using federal airways. The preferred routings which follow are gned to serve the needs of airspace users and to provide for a system- flow of air traffic in the major terminal and en route flight environits. Cooperation by all pilots in filing preferred routes will result in er traffic delays and will better provide for efficient departure, en route arrival air traffic control service.

The following list will hereafter appear in EACH issue of the AIRGI.
This list contains preferred routes for the low altitude stratum (below 00 feet MSL).

New Altitude Stratum—A distinctive numbering system (800 Series) has n introduced to indicate some of the preferred routes in this stratum thereby eliminate the present lengthy route descriptions. Many of preferred routes, however, retain the common basic airway numbers e the two systems of numbering in combination. Additional designa of "800 Series Airways" will be made where simplicity and conence to both pilots and controllers dictate such assignments.

Preferred Route Starting and Terminating Fixes—Preferred routes generally commence and terminate at fixes on or near the perimeter of the terminal area.

Depicted on the Area Charts, produced by Coast and Geodetic Survey, are the normal routes between the airport and the preferred route starting/terminating fixes. Whenever a fix is shown in **bold-face** type, pilots should refer to the appropriate Area Chart for the routing he may expect prior to or after that fix as appropriate.

Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flights are normally cleared directly on the airway. All preferred routes are listed alphabetically under the name of the departure airport. Major airports in close proximity are listed under the principal airport and categorized as a metropolitan area; e.g., Chicago Metro Area. Official location identifiers are used in the route description for VOR/VORTAC navaids. L/MF navaids are identified by the identifier and type: e.g., MIV/LFR, DOV/Rbn. Intersection names are spelled out. Where two navaids or an intersection and a navaid follow in succession, the route is direct.

(L20, 23)=Enroute chart numbers.

ANY

ston..... V2 **GDM** (L-25)
nnedy..... V91 V475 **DPK** (L-25)
Guardia..... V91 V1 V123 **Stamford** (L-25)
wark..... V489 IGN SAX SAX 205 rad **Budd Lake** (L25)

UQUERQUE

nver..... **ADEN** V19W SAF V83 PUB V19E **IOC** (L-4, 6)
nsas City..... **Aden** V19W SAF V19 LVS V190 DHT V234 V280 **Farley** (L-6)
s Angeles..... **GNT** V12 EED V208 TNP V264S **ONT.** (L-4, 3)
oenix..... **GNT** V190N SJN V190 Lake. (L-4)

ANTA METRO AREA

mingham..... **Newnan** V20N V66 V115 Lewis (L-20, 14)
ncinnati..... Crabapple V97 **Dry Ridge** (L-20, 22)
arlotte..... **Conyers** V66 FML (L-20)
icago..... **Crabapple** V51 **CGT** (L-14, 20, 21, 23)
llas..... **Newnan** V20N V66 TCL V18 MLU V94 V477E **Forney** (L-20, L-14, L-18, L-17, L-13)
lles Intl..... **Conyers** V66 FML V454 LVL V155 GVE V39 **CSN** (L-20, 22)
uston..... **Newnan** V20N V66 TCL V18 MEI V194 MCB V222 LCH V222N **Monument** (L-20, L-14, L-18, L-17, L-15)
nnedy..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 V44 (L-20, 22, 24)
cksonville..... **Griffin** V243 AYS V243W **Callahan** (L20, 18)
La Guardia..... **Conyers** V66 FML V454 LVL V157 RIC V20 V213 **JFK** (L-20, 22, 24)
Memphis..... **Newnan** V20N V66 V115 BHM V176N HLI (L-20, 14)
Miami..... **Brooks** V843 **MIA** (L-20, 18, 19)
Newark..... **Conyers** V66 FML V454 V157 V20 V213 V29 V433 **Rocky Hill** (L-20, 22, 24)
Orlando..... **Griffin** V243 AYS V157 OCF V159W **Clermont** (L20, 18, 19)
Pittsburgh..... **Crabapple** V97 TYS V115 PKB V119 **HLG** (L-20, 22, 24)
Tampa..... **Brooks** V843 HOMO V35E **Hazel** (L-20, 18, 19)
Washington..... **Conyers** V66 FML V454 LVL V157 **Ironsides** (20, 22)

BALTIMORE—See Washington/Baltimore Metro

BIRMINGHAM

Atlanta..... ANB V18 **Sargent** (L-14, 20)
New Orleans..... TCL V875 **Madison** (L-14, 18, 17)
Pittsburgh..... GAD V115E CHA V115 PKB V119 **HLG** (L-14, 22, 24)

BOSTON METRO AREA

Albany..... V14 Melrose (L-25)
Buffalo..... V14 Bellona V31 ROC V142 **Grant** (L-25)
Cleveland..... V14 ALB V72 Hadley V232 **Mentor** (L-25, L-24)
Kennedy..... **PUT** V879 **DPK** (L-25)

BOSTON METRO AREA—Continued

La Guardia	**Millbury** V875 V157 **Stamford** (L–25)
Newark	**Millbury** V875 V251 SAX SAX 205 rad **Budd Lake** (L–25, 24)
Philadelphia	**Millbury** V875 **Warrington** (L–25, 24)
Rochester	V14 Bellona V31 Fishers (L–25)
Washington	**PUT** V888 **North Beach** (L–25, 24)

BUFFALO METRO AREA

Boston	**GEE** V14 **GDM** (L–12, L–25)
Cleveland	**Langford** V464 DKK V14 **Mentor** (L–12, 24)
Detroit	V2 QO V90N Dolphin V90 **QG** (L–12, 23)
Kennedy	V252 BGM V270 V34 V475 **DPK** (L–12, 25)
La Guardia	V252 GEE V147 ABE V6 V433 **Liberty** (L–12, 25)
Midway	V84 LAN V218 **Surf** (L–12, 23)
Newark	V252 GEE V147 ELM V36 AVP V153 **BUDD LAKE** (L–12, 25)
O'Hare	V84 **OBK** (L12, 23)
Philadelphia	V33 HAR V12 **ESR** (L–12, 24)
Pittsburgh	V115 **EWC** (L–12, 24)
● Washington	V33 HAR V265 Clarksville GTN/Rbn **DCA** (L–12, 24)

CHARLESTON, W. VA.

Cincinnati	V128 YRK V128S **Grants Lick** (L–22)
Cleveland	V115 PKB V839 **Sharon** L–22, 24, 23)
Columbus	V133 V214 Hanover (L–22, 23)
Louisville	V128 YRK V44 FLM V502 (L–22, 21)
Pittsburgh	V115 PKB V119 **HLG** (L–22, 24)
Washington	V4S EKN V4 **HRN** (L22, 24)

CHARLOTTE

Atlanta	FML V194 Homer V20N **OCR** (L20)
Cleveland	Moorseville V37 PSK V839 **Sharon** (L–20, 22, 24)
Kennedy	New London V454 LVL V157 RIC V20 V213 V44 **BGT** (L–20, 22, 24)
La Guardia	New London V454 LVL V157 V20 V213 **JFK** (L–20, 22, 24)
Miami	FML V37 ALD V157 LAL V843 **Cypress** (L–20, 18, 19)
Washington	New London V454 LVL V157 **Ironsides** (L–20, 22)

CHICAGO METRO AREA

From Midway or O'Hare

Atlanta	**EON** V843 **Kennesaw** (L–23, 21, 14, 20)
Denver	**Malta** V846 (L–23, 6, 8)
Detroit City	V100 V218 Plains V42 **Troy** (L23)
Dulles	**EON** V853 **HRN** (L–23, 22)
Kennedy	V6 SEG V810 **RBV** (L–23, 24)
Indianapolis	**EON** V128 (L–23)
La Guardia	V6 V433 **Liberty** (L–23, 24)
Los Angeles	**Malta** V846 DEN V8 (L–23, 6, 8, 3)
Memphis	**Big Run** V173 CAP V9 Kerrville (L–23, 21, 14)
Miami	**EON** V843 (L–23, 21, 14, 18, 19)
Minneapolis	V855 **FQT;** or V172 V129 RWY V855 **FQT** (L–23, 11, 10)
Newark	V6 SEG V30 **Rocky Hill** (L–23, 24)
Philadelphia	V6 V30 PSB V33 HAR V12 **ESR** (L–23, 24)
Pittsburgh	V6 V103 ACO V297 **EWC** (L–23)
San Francisco	**Malta** V854 (L–23, 11, 8, 7, 2)
St. Louis	**Big Run** V191 V426 **Godfrey** (L–23, 21)
Tampa	V843 Home V35E **Hazel** (L–23, 21, 14, 20, 18, 19)
Tulsa	V845 EOS V14 (L–23, 6, 14)
Washington	**EON** V853 **HRN** (L–23, 22)

From Midway only

Cleveland	**Crib** V6 V232 **Vermilion** (L–23)
Des Moines	**API** V8 CVA V233 CID V846 **TNU** (L–23, 11)
Kansas City	**API** V10 **Kearney** (L–23, 11, 21)
Metro Wayne Co	V10 **Dundee** (L–23)
Omaha	**API** V8 CVA V233 CID V846 EOL (L–23, 11)
Willow Run	**Crib** V10 LFD V90 (L–23)

From O'Hare only

Cleveland	V172 V228 SBN V6 V232 **Vermilion** (L–23)
Des Moines	V172 **TNU** (L–23, 11)
Kansas City	V84 BDF V10 **Kearney** (L–23, 11, 21)
Metro Wayne Co	V100 Leroy V30 LFD V10 **Dundee** (L–23)
Omaha	V172 PLL V846 EOL (L–23, 11)
Willow Run	V100 V30 V90 (L–23)
Windsor	V100 V218 **Plains** (L–23)

CINCINNATI METRO AREA

Atlanta	V97 TYS V267 **OCR** (L–21, 22, 20)
Charleston, W. Va.	V128 (L–21, 22, 20)
Chicago	V97 **CGT** (L–21, 23)
Detroit (City)	V275 VWV V47 **SVM** (L–21, 23)
Indianapolis	V97 (L–21, 23)
La Guardia	V128 YRK V44 MGW V106 SEG V6 V433 **Libe** (L–22, 24)
Louisville	V47 ABB V51 (L–21)
Metro Wayne Co	V275 VWV V47 **Dundee** (L–21, 23)
Miami	V47 ABB V51 CSV V51W CHA V843 **Cypress,** or V ATL V843 **Cypress** (L–21, 22, 20, 18, 19)
Newark	V128 YRK V44 MGW V106 V30 **Rocky Hill** (L–22,
Pittsburgh	V128 YRK V44 PKB V119 **HLG** (L–22, 24)
St. Louis	V47 ABB V44 ENL V4 **TOY** (L–21)
Willow Run	V275 VWV V47 **Dundee** (L21, 23)

CLEVELAND METRO AREA

Boston	V14N ERI V270 BGM V72 ALB V2 **GDM** (L–23, 12, 25)
Buffalo	V14N **Crystal Beach** (L–23, 24, 12)
Charlotte	V443 TVT V133 Stanley (L–23, 22, 20)
Chicago	V126 CGT V7 **Niles** (L–23)
Columbus	V443 TVT V43 APE (L–23)
Dayton	V14 ATO V435 ROD (L–23)
Detroit (City)	V42E QG V90 (L–23)
Kennedy	**ACO** V30 SEG V810 **RBV** (L–24)
Indianapolis	**CLE** V14 (L23)
La Guardia	**ACO** V30 CIP V6 Amboy V433 **Liberty** (L–24)
Metro Wayne Co	V42E V10 **CRL** (L–23)
Miami	V881 **Cypress** (L–22, 20, 18, 19)
Newark	**ACO** V30 **Rocky Hill** (L–24)
Philadelphia	**ACO** V30 PSB V33 HAR V12 **ESR** (L–24)
Pittsburgh	**ACO** V297 **EWC** (L–24)
Rochester	V14N ERI V14 BUF V2 Clifton (L–23, 24, 12)
Washington	**ACO** V103 IRL V37 Millsboro V92 FRR V4 HR (L–24)
Willow Run	V42E QG V90 (L–23)

)LUMBUS

Charleston, W. Va. APE V38 V133 (L-23, 24, 22)
ndianapolis..... Grindell V210 (L-23)
.a Guardia..... APE V802 V6 V433 **Liberty** (L-23, 24)
Pittsburgh..... APE V12 **HLG** (L-23, 24)
St. Louis..... V12N V210 VLA V14N **Godfrey** (L-23, 21)
Toledo..... V38 FDY V47 (L-23)
Washington..... APE V144 ESL V4 **HRN** (L-23, 24)

LLAS/FT. WORTH METRO AREA

Amarillo..... **Lakeside** V114 Claude (L-13)
Atlanta..... **DAL** V278 BHM V18 **Sargent** (L-13, L-14, L-20)
Dulles Intl..... V830 MOL V251 **FRR** (L-13, 14, 21, 22)
El Paso..... **Joshua** V94 INK V16 **RIO** (L-13, 4)
Houston..... **Trinity Fork** V477 LOA V477W **Fairbanks** (L-13, 17)
Los Angeles..... **Joshua** V94 INK V16 SFL V94 GBN V461 BXK V16 **ONT** (L-13, 4, 3)
Memphis..... **DAL** V830 PBF V16N Round Pond (L-13, 14)
Midway..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
New Orleans..... **DAL** V114 **French** (L-13, 17)
O'Hare..... **DAL** V15 Gunter PNX MLC V63 UIN V116 **JOT** (L-13, 6, 21, 11, 23)
San Antonio..... **Red Oak** V15E ACT V17 AUS V17W **Bergheim** (L-13, 15)
Tulsa..... **DAL** V15 Gunter PNX MLC V131 OKM Haskell; or **DAL** V15 OKM Haskell (L-13, 6)
Washington..... **DAL** V830 **Ironsides** (L-13, 14, 21, 22)

YTON

Chicago..... DAY 001 Radial V277 FWA V55 V422 **CGT** (L-23)
Cleveland..... V275 FDY V8 MFD V246 **Sharon** (L-23)
Detroit (City)..... V275 FDY V47 **SVM** (L-23)
La Guardia..... V802 V6 V433 **Liberty** (L-23, 24)
Metro Wayne Co./ Willow Run..... V275 FDY V47 **Dundee** (L-23)
Oklahoma City..... DAY V50N IND V210 STL V14 TUL V14N **Stillwater** (L-23, 21, 6)
Washington..... V12 APE V144 ESL V4 **HRN** (L-23, 24)

NVER METRO AREA

Chicago..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 **JOT** (L-8, 11, 23)
Kennedy..... **DEN** V172 Holyoke V8N HCT V8 IOW V38 JOT V92 VWV V6 V30 ETX **RBV** (L-8, 11, 23. 24)

TROIT METRO AREA

Kennedy..... V221 ERI V810 SEG V30 ETX **RBV** (L-12, 24)
From City and Windsor only
Newark..... V221 ERI V810 SEG V30 **Rocky Hill** (L-12, 23, 24, 28, 25)
Philadelphia..... V221 ERI V116 BFD V33 HAR V12 **ESR** (L-12, 24)
Ft. Wayne..... **SVM** V170 Leslie V45 JXN V221 (L-23)
Midway..... **SVM** V170 V84 V7E V116 (L-23)
Milwaukee..... **SVM** V170 PMM V30S **Pike** (L-12, 23)
O'Hare..... **SVM** V170 V84 **OBK** (L-23)

From Metro or Willow Run only

Buffalo..... V221 V90 V14N **Crystal Beach** (L-12)
Cleveland..... **Crest** V297 **Vermilion** (L-23)
Ft. Wayne..... **Dexter** V221 (L-23)
Midway..... **Pinckney** V170 V84 V7E V116 (L-12, 23)
Milwaukee..... **Dexter** V116 JXN V45 Leslie V170 PMM V30S **Pike** (L-12, 23)
O'Hare..... **Pinckney** V170 V84 **OBK** (L-12, 23)
Pittsburgh..... **Crest** V133 BAY V6 V42 ACO V297 **EWC** (L-23,24)
Rochester..... V221 V90 V14 V2 (L-12)
Washington..... **Crest** V133 ZZV V144 ESL V4 **HRN** (L-23, 24)

EL PASO

Dallas..... **HUP** V66 MAF V16S BGS V16 ABI V66 Denton V114 **Lakeside** (L-4, 13)
Los Angeles..... **EWM** V94 GBN V461 BXK V16 **ONT** (L-4, 3)
San Antonio..... **HUP** V198 **Boerne** (L-4, 15)

HAVANA

Miami..... Balboa drct MTH drct Sable B19 **PRR** (L-19)

HOUSTON METRO AREA

Atlanta..... **LaPorte** V20S LCH V20 LFT V70 EVR V20 **Tyrone** (L-17, 18, 14, 20)
Dallas..... **Gulf Coast** V477E **Forney** (L-17, 13)
New Orleans..... **LaPorte** V20S LCH V20 **Turtle** (L-17)
San Antonio..... **Andrau** V222 **Hunter** (L-17, 15)

INDIANAPOLIS

Detroit..... V11 **SVM** (L-23)
Evansville..... V11W SCJ V11E (L-21)
Kennedy..... V50 DAY V12 V162 V810 **RBV** (L-23, 24)
La Guardia..... V50 DAY V802 V6 V433 **Liberty** (L-23, 24)
Metro Wayne Co... V11 V10 **Dundee** (L-23)
Midway..... V97W V97 **CGT** (L-23)
Newark..... V50 DAY V802 V30 **Rocky Hill** (L-23, 24)
Pittsburgh..... V50 DAY V12 **HLG** (L-23, 24)
St. Louis..... V14 VLA V14N **Godfrey** (L-21)
Willow Run..... V11 V10 **Dundee** (L-23)

JACKSONVILLE

Atlanta..... **Kings** V5E DBN V5 **MDU** (L18, 20)
Dulles Intl..... **Clinch** V3E SAV V3 RDU V155 GVE V39 **CSN** (L-18, 20, 22)
Kennedy..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 ENO V44 **BGT** (L-18, 20, 22, 24)
LaGuardia..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 Tappahannock V213 **JFK** (L-18, 20, 22, 24)
Miami..... **Blue Jacket** V267 **New River** (L-19)
Newark..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 V29 V433 **Rocky Hill** (L-18, 20, 22, 24)
Norfolk..... **Clinch** V3E SAV V437 CHS V1 MYR V213 RMT V189 FKN (L-18, 20, 22)
Orlando..... **Blue Jacket V267** Woodruff (L-18, 19)
Philadelphia..... **Clinch** V3E SAV V3 RDU V155 LVL V157 RIC V20 V213 **OOD** (L-18, 20, 22, 24)
Washington..... **Clinch** V3E SAV V3 RDU V155 LVL V157 **Ironsides** (L-18, 20, 22)

KANSAS CITY METRO AREA

Midway..... **Excelsior** V116 **JOT** (L-21, 23)
O'Hare..... **Excelsior** V116 **JOT** (L-21, 23)
St. Louis..... **BSP** V12 **MTS** (L-21)
Wichita..... **Bonner Springs V12** De Graff (L-6)

KENNEDY—See New York Metro Area

LA GUARDIA—See New York Metro Area

LOUISVILLE

La Guardia..... V4 CRW V106 SEG V6 V433 **Liberty** (L-21, 22, 24)
Newark..... V4 CRW V106 V30 **Rocky Hill Hill** (L-21, 22, 24)

MEMPHIS

Atlanta..... HLI V176 BHM V18 **Sargent** (L-14, L-20)
Dallas..... Eudora V16S PBF V887 **DAL** (L-14, 13)
Dulles Intl..... Moscow V16S GHM V830 V251 **FRR** (L-14, 21, 22)
Midway..... Cuba V9W V9 **JOT** (L-14, 21, 22)
New Orleans..... Arkabutla V9W GRW V9 **Madison** (L-14, 17)
O'Hare..... Cuba V9W V9 **JOT** (L-14, 21, 23)
Washington..... MOSCOW V16S GHM V830 **Ironsides** (L-14, 22)

METRO WAYNE CO—See Detroit Metro Area

MIAMI METRO AREA

Atlanta..... **MIA** V35 V7 LAL V157 AMG V5 **MDU** (L-19, L-18, L-20)
Charlotte..... **MIA** V35 V7 LAL V157 ALD V37 FML L-19, 18, 20)
Chicago..... **MIA** V35 FMY V819 DBN V267 TYS V97 **CGT** (L-19, 20, 22, 21, 23)
Cleveland..... **MIA** V839 (L-19, 20, 22, 21, 23)
Detroit (City)..... V839 CLE V42 **QG** (L-19, 20, 22, 21, 23)
Dulles Intl..... **GUPPY** Direct HALIBUT Control 1150 ILM V157 LVL V155 GVE V39 **CSN** (L-19, 20, 22)
Habana..... **Gary** V51 EYW drct SF/Rbn; or PRR/Rbn drct Leon drct EYW drct SF/Rbn (L-19)
Kennedy..... **Guppy** drct Halibut Control 1150 ILM V1 **BGT** (L-19, 20, 22, 24)
Jacksonville..... **Martin** V3E PBI V3 DAB V3E **Shiloh** (L-19)
La Guardia..... **Guppy** drct Halibut Control 1150 ILM VIW V213 **JFK** (—19, 20, 22, 24)
Metro Wayne Co... V839 CLE V42 V10 **CRL** (L-19, 20, 22, 24, 23)
Newark..... **Guppy** drct Halibut Control 1150 ILM V1 V29 V433 **Rocky Hill** (L-19, 20, 22, 24)
Pittsburgh..... **MIA** V35 V7 LAL V157 ALD V37 **AGC** (L-19, 20, 22, 24)
Tampa..... **MIA** V35 **Hansen** (L-19)
Washington..... **Guppy** drct Halibut Control 1150 ILM V157 **Ironsides** (L-19, 20, 22)
Willow Run..... V839 CLE V42 **QG** (L-19, 20, 22, 24, 23)

MIDWAY—See Chicago Metro Area

MILWAUKEE

Chicago..... V9 **API**; or **Taylor** V7E V116 **Surf** (L-12, 23)
Detroit..... V2S MKG V2 **SVM** (L-12)
Kennedy..... V2S MKG V2 SVM V116 QG V810 SEG V30 ETX **RBV** (L-12, 23, 24)

MINNEAPOLIS METRO AREA

Midway..... **Prescott** V2 V97 V171 V6 **API** (L-10, 11, 23)
O'Hare..... **Prescott** V2 V97 **Lakewood** (L-10, 11, 23)

MONTGOMERY

Washington..... **TGE** V154 MCN V56 AGS V155 V157 **Ironsides**; **Martin** V837 **Ironsides** (L-10, 20, 22)

NASHVILLE

La Guardia..... **Freedom** V140N LOZ V830 GVE V837 ENO V **JFK** (L-21, 22, 24)
Newark..... **Freedom** V140N LOZ V830 GVE V837 ENO V29 W **Rocky Hill** (L-21, 22, 24)

NEW ORLEANS METRO AREA

Atlanta..... **PCU** V837 **Tyrone** (L-17, 18, 20)
Birmingham..... **PCU** V455 MEI V154 V209 BWA drct BHM (L-17, L-18, L-14)
Dallas..... **Walker** V-114N AEX V-114 GGG V-94 V-4 **Forney** (L-17, 13)
Dulles Intl..... **PCU** V837 GVE V39 **CSN** (L-17, 18, 20, 22)
Houston..... **TBD** V20S LFT V20 LCH V222N **Monument** (L-
Kennedy..... **PCU** V837 SBV V20 V213 ENO V44 **BGT** (L-17, 20, 22, 24)
Memphis..... **PCU** V9E MCB V9 GRW V9E **Independence** (L-
Newark..... **PCU** V837 SBV V20 V213 ENO V29 V433 **Rocky** (L-17, 18, 20, 22, 24)
Washington..... **PCU** V837 **Ironsides** (L-17, 18, 20, 22)

NEW YORK METRO AREA

From Kennedy and La Guardia only

Albany..... **Sound** POU V487 Brainard (L-25)
Bradley..... **Sound** BDR BDR 020 radial Tamie (L-25)

From Newark only

Albany..... **SAX** POU V487 Brainard (L-25)
Atlanta..... **SBJ** V875 MOL V143 V222 V35 V20N **OCR** (L-22, 20)
Baltimore..... **SBJ** V875 V93 (L-24)
Boston..... **SAX** POU V861 Sterling (L-25)
Bradley..... SAX IGN IGN 096 radial Tamie
Buffalo..... **TVE** V188 V147 V36 **Dale** (L-25)
Cincinnati..... **SBJ** V875 V166 V4 V174 V128S **Grants Lick** (L-22)
Cleveland..... **TVE** V232 **Mentor** (L-24, 23)
Detroit (City)..... **TVE** V188 V103 **QG** (L-24, 23)
Detroit Metro Area.. **SAX** V880 **QG** (L-24, 23)
Dulles Intl..... **SBJ** V875 EMI V166 V223 **Sugar Loaf** (L-24)
Indianapolis..... **TVE** V232 V804 (L-24, 23)
Jacksonville..... **SBJ** V875 V29 SWL V139 V1 V437 SAV V3 **St Mi** (L-24, 22, 20, 18)
Louisville..... **SBJ** V875 V166 V4 V174 V44 FLM V502 (L-24 22,
Metro Wayne Co... **TVE** V188 **CRL** (L-24, 23)
Miami..... **SBJ** V3 V29 SWL V139 CCV V1 Control 1150 St geon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Nashville..... **SBJ** V875 MOL V887 **Lebanon** (L-24, L-22, L-14)
New Orleans..... **SBJ** V875 **Madison** (L-24, 22, 20, 14, 18)
Norfolk Metro Area.. **SBJ** V875 V29 SWL V139 CCV (L-24, 22)

EW YORK METRO AREA—Continued

From Newark only

Philadelphia..... **SBJ** V875 **Warrington** (L-24)
Pittsburgh..... **TVE** V232 ETG V226 **EWC** (L-24)
Providence..... **SAX** POU V861 V130 Lafayette (L-25)
Rochester..... **SAX** V807 Fishers (L-25)
Syracuse..... **SAX** V483 (L-25)
Toledo..... **TVE** V232 Mentor V126 (L-24, 23)
Washington..... **SBJ** V875 ESR ESR 244rad Clarksville GTN, Rbn **DCA** (L-24)
Willow Run..... **TVE** V188 V103 **QG** (L-24, 23)

From Kennedy only

Atlanta..... **Dutch** V888 V213 V20 SPA V20N **OCR** (L-24, 22, 20)
Baltimore..... **Dutch** V888 V44 (L-24)
Boston..... HTO V837 **HTM** (L-25)
Buffalo..... **HUO** V126 V36 **Dale** (L-25)
Cleveland..... **HUO** V126 V58 V226 V232 **Mentor** (L-25, 24, 23)
Detroit (City)..... **HUO** V126 V880 **QG** (L-25, 24, 23)
Dulles Int'l..... **HUO** TVE V39 V162 HAR V223 **Sugar Leaf** (L-25, 24)
Europe..... HTO V46 (L-25)
Jacksonville..... **Dutch** V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
Louisville..... **HUO** TVE V39 V251 V166 V4 V174 V44 FLM V502 (L-25, 24, 22, 21)
Metro Wayne Co... **HUO** V126 BFD V72 V188 **CRL** (L25, 24, 23)
Miami..... **Dutch** V139 V1 Control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-24, 22, 20, 19)
Montreal..... **Sound** POU V487 (L-25, 26)
New Orleans..... **Dutch** V888 V16 ROA V875 **Madison** (L-24, 22, 20, 14, 18, 17)
Norfolk Metro Area. **Dutch** V139 CCV (L-24, 22)
O'Hare..... **HUO** V126 AVP V880 **OBK** (L-25,24, 23)
Philadelphia..... **Dutch** CYN V140 V239 **OOD** (L-24)
Pittsburgh..... **HUO** V126 AVP V58 V226 **EWC** (L-25, 24)
Providence..... HTO V837 (L-25)
Rochester..... **HUO** V249 V34 Fishers (L-25)
Syracuse..... **HUO** V483 (L25)
Toronto..... **HUO** V126 AVP V36 (L-25, 12)
Washington..... **Dutch** V888 **North Beach** (L-24)
Willow Run..... **HUO** V126 BFD V72 V188 V103 **QG** (L25, 24, 23)

From LaGuardia only

Atlanta..... **Paterson** V875 MOL V143 V222 V35 V20N **OCR** (L-24, 22, 20)
Baltimore..... **Paterson** V875 V93 (L-24)
Boston..... Sound V863 (L-25)
Buffalo..... **SAX** V36 **Dale** (L-25, 12)
Cincinnati..... **Paterson** V875 V166 V4 V174 V128S **Grants Lick** (L-24, 22)
Cleveland..... **SAX** TOH V188 JFN V14 **Mentor** (L-24, 23)
Columbus..... **SAX** TOH V804 V119 V214 Hanover (L-24, 23)
Detroit (City)..... **SAX V880 QG** (L-24, 23)
Dulles Intl..... **Paterson** V875 EMI V166 V223 **Sugar Leaf** (L-24)
Indianapolis..... **SAX** TOH V804 (L-24, 23)
Louisville..... **Paterson** V875 V166 V4 V174 V44 FLM V502 (L-24, 22, 21)
Montreal..... **Sound** POU V487 (L-25)
Metro Wayne Co... **SAX** V880 V14N V188 **CRL** (L-24, 23)
Nashville..... **Paterson** V875 MOL V887 **Lebanon** (L-24, L-22, L-14)
O'Hare..... **SAX** V880 **OBK** (L-24, 25)
Philadelphia..... **Paterson** V875 **Warrington** (L-24)
Pittsburgh..... **SAX** TOH V804 ETG V226 **EWC** (L-24)
Providence..... **Sound** V863 V130 Lafayette (L-24, 25)
Rochester..... **SAX** V807 Fishers (L-25)
Toronto..... **SAX** V36 (L-25, 12)
● Washington..... **Paterson** V875 ESR ESR 244 rad Clarksville GTN/Rbn **DCA** (L-24)
Willow Run..... **SAX** V880 V14N V188 V103 **QG** (L-24, 23)

NORFOLK METRO AREA

Charlotte..... CVI V194 Midland (L-22, 20)
Dulles Intl..... Farnham V286 **CSN** (L-22)
Kennedy..... CCV V1 **BGT** (L-22, 24)
Jacksonville..... CVI V805 **St. Marys** (L-22, 20, 18)
LaGuardia..... CCV V1 SBY V29 ENO V213 **JFK** (L-22, 24)
Newark..... CCV V1 SBY V29 V433 **Rocky Hill** (L-22, 24)
Philadelphia..... CCV V1 SBY V29 ENO V213 **OOD** (L-22, 24)
Richmond..... HCM V156 (L-22)
Washington..... Farnham V286 V157 **Ironsides** (L-22)

OAKLAND—See San Francisco Metro Area

OKLAHOMA CITY

Dayton..... **Prague** V14S TUL V14 SGF V190 EVV V11 V12 (L-6, 21, 23)
Wichita..... **Crescent** V77 Mayfield (L-6)

ORLANDO

Atlanta..... Leesburg V159 ABY V97 **Brooks** (L-19, 18, 20)
Jacksonville..... Sanford V152 DAB V3E **Shiloh** (L-19)

PHILADELPHIA METRO AREA

Baltimore..... **EWT** V166 V93 (L-24)
Boston..... MIV 100 rad V837 **HTM** (L-24, L-25)
Buffalo..... **Reinholds** V170 SLT V501 ELZ V119 Burns V36 **Dale** (L-25)
Cleveland..... **Reinholds** V162S HAR V12 AGC V8 BSV V40 **Sharon** (L-24, 23)
Detroit (City)..... **Reinholds** V162S V12 V37 V103 V42 **QG** (24, 23)
Dulles Intl..... **EWT** 300 rad V875 EMI V166 V223 **Sugar Leaf** (L-24)
Kennedy..... **Columbus** V123 **RBV** (L-24)
Jacksonville..... **MIV** 180 rad V139 V1 V437 V3 **St. Marys** (L-24, 22, 20, 19)
LaGuardia..... **Columbus** V213 **JFK** (L-24)
Metro Wayne Co... **Reinholds** V162S V12 V37 V103 V42 V10 **CRL** (L-24, 23)
Miami..... **MIV** 180 rad V139 CCV V1 Control 1150 Sturgeon drct Tarpon PBI V159E **Oakland** (L28, 27, 19)
Newark..... V433 **Rocky Hill** (L-24)
Norfolk Metro Area. **MIV** 180 rad V139 CCV (L-24, 22)
Pittsburgh..... **Reinholds** V162S V12 (L-24)
Rochester..... **Reinholds** V170 V31 Fishers (L-24, 25)
● Washington..... **EWT** V166 ESR 244 rad ESR 244 rad Clarksville GTN/Rbn **DCA** (L-24)
Willow Run..... **Reinholds** V162S V12 V37 V103 V42 **QG** (L-24, 23)

PHOENIX

Albuquerque..... **Lake** V190 Suwanne (L-4)
El Paso..... V105 CZG V94 SSO V198 **Harrington Ranch** (L-4)
Kansas City..... V190 DHT V234 HUT V280 TOP V4N **Farley** (L-4, 6)

PITTSBURGH METRO AREA

Buffalo..... V37 EWC V115 (L–24, 12)
Cleveland..... V40 **Sharon** (L–23, 24)
Philadelphia..... **CLN** V210 V12 **ESR** (L–24)
Willow Run..... V40 CLE V26 **Park** (L–24, 23)

From Greater Pittsburgh only

Atlanta..... V103 Finley V115 TYS V267 **OCR** (L–24, 22, 20)
Baltimore..... V103 V92 Keyser V44 MRB V166 **EMI** (L–24)
Boston..... **Freeport** V119 V276 TON V35 ELM V72 ALB V2 **GDM** (L–24, 25)
Charleston, W. Va. V103 Finley V115 PKB V59 V106 (L–24, 22)
Chicago..... V40 BSV V8 FDY V422 CGT V7 **Niles** (L–24, 22)
Columbus..... V103 Wolfdale V214 (L–24, 23)
Detroit..... V40 CLE V26 **Park** (L–24, 23)
Kennedy..... V119 V276 **RBV** (L–24)
Indianapolis..... V210; or **Kilgore** V210 (L–24, 23)
LaGuardia..... V119 V276 Reedsville V802 V6 V433 **Liberty** (L–24)
Newark..... V119 V276 Reedsville V106 SEG V30 **Rocky Hill** (L–24)
Philadelphia..... **CLN** V210 HAR V12 **ESR** (L–24)
St. Louis..... **Kilgore** V210 VLA V14N **Godfrey** (L–23, 21, 6)
Washington..... V103 V92 FRR V4 **HRN** (L–24)

From Allegheny Co. only

Chicago..... **AGC** V8 FDY V422 CGT V7 **Niles** (L–24, 23)
Kennedy..... V802 Reedsville V276 **RBV** (L–24)
La Guardia..... V802 SEG V6 V433 **Liberty** (L–24)
Newark..... V12 HAR V162 V30 **Rocky Hill** (L–24)

PROVIDENCE

Kennedy..... V167 V16 V879 **DPK** (L–25)
LaGuardia..... V167 V875 V157 **Stamford** (L–25)
Newark..... V167 HFD V251 SAX SAX 205 rad **Budd Lake** (L25)

PORTLAND

Seattle..... V23 **Rainier** (L–1)

RICHMOND

Philadelphia..... V20 Tappahannock V213 **OOD** (L–22, 24)

ROCHESTER

Baltimore..... V147 ELM V31 (L–25, 24)
Boston..... Fishers V31 Bellona V14 **GDM** (L—25)
Detroit..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L–12, 23)
Kennedy..... V147 GEE V252 BGM V270 V34 V475 **DPK** (L–25)
LaGuardia..... V147 ABE V6 V433 **Liberty** (L–25)
Newark..... V147 ELM V36 AVP V153 **Budd Lake** (L–25)
Philadelphia..... V147 ABE ABE 160 rad V3 **Warrington** (L–25, 24)
● Washington..... V147 ELM V31 HAR V265 Clarksville GTN/Rbn **DCA** (L–25, 24)
Willow Run..... V142 BUF V2 QO V90N Dolphin V90 **Park** (L–12, 23)

SAN ANTONIO

Dallas..... **Mission** V17 ACT V15 **Desoto** (L–15, 17, 13)
El Paso..... **Guadalupe** V222 **Rio** (L–15, 4)
Houston..... **Clear Spring** V198 ELA V180 **Arcola** (L–15, 17)

SAN FRANCISCO/OAKLAND METRO AREA

Chicago (ORD).... **LIN** V810 **Lakewood** (L–2, 5, 7, 8, 11, 23)
From San Francisco only
Burbank/Los Angeles. **Shrimp** V27 SBP V137 Pozo V25 V12 **FIM** (L-2,
Kennedy..... **LIN** V810 OBK V84 LAN V2 SVM V116 ERI V17 V276 **RBV** (L–2, 5, 7, 8, 11, 23, 12, 24)

ST. LOUIS METRO AREA

Cleveland..... **TOY** V12 Wilbur V11 IND V14 FDY V8 MFD V2 **Sharon** (L–21. 23)
Columbus..... **TOY** V12 (L–21, 23)
Dallas..... V14 EOS V845 **Gainesville** (L–21, 6, 13)
Ft. Worth..... V14 EOS V15 OKM V161 **Justin** (L–21, 6, 13)
Indianapolis..... **TOY** V12 Wilbur V11 (L–21, 23)
Kansas City..... V4 **Missouri City** (L–21)
Memphis..... V9 Kerrville (L–21, 14)
Midway/O'Hare... V9 **JOT** (L–21, 11, 23)
Tulsa..... V14 (L–21, 6)
Washington..... **TOY** V52 EVV V4 **HRN** (L–21, 22)

SYRACUSE

Kennedy..... V273 HNK V34 V475 **DPK** (L–25)
LaGuardia..... V153 V29 V6 V433 **Liberty** (L25)
Newark..... V153 **Budd Lake** (L–25)

TAMPA METRO AREA

Atlanta..... **V97W** Scallop V97 **Brooks** (L–19, 18, 20)
Miami..... **Gibson** V97 **MIA** (L–19)

TORONTO

LaGuardia..... V36 V147 V6 V433 **Liberty** (L–12, 25)

TULSA

Chicago..... V14 SGF V63 V116 **JOT** (L–6, 21, 11, 23)
Dallas..... OKM V845 **Gainesville** (L–6, 13)
Dayton..... V140 FYV V72 MAP V190 EVV V11 V12 (L–6, 21)
Indianapolis..... V140 FYV V72 MAP V190 EVV V11 (L–6, 21)
St. Louis..... V140 FYV V72 V9 **Lenay** (L–6, 21)

WASHINGTON/BALTIMORE METRO AREA

Boston..... **Swan Point** BAL 103 rad V16 ENO V837 **HTM** (L-2 25)
Chicago..... Flint Stone V8 FDY V422 **CGT** (L–24, 23)
Cleveland..... Flint Stone V8 BSV V40 **Sharon** (L–24, 23)
Jacksonville..... **BRV** V3 **St. Marys** (L–22, 20, 18)
Kennedy..... **Swan Point** ENO 270 rad OOD 239 rad OOD V1 RBV (L24) or **Swan Point** ENO 270 rad OO 239 rad V140 V238 VI **BGT** (L–24)
LaGuardia..... **Swan Point** ENO 270 rad OOD 239 rad OOD V1 RBV V213 **JFK** (L–24)
Newark..... **Swan Point** EWT 231 rad EWT V433 **Rocky Hi** (L–24)
Philadelphia..... **Swan Point** ENO 270 rad OOD 239 rad OOD (L-24
Pittsburgh..... Flint Stone V8 **AGC** (L–24)

From Washington only

Atlanta..... **CSN** V140 MOL V143 LYH V222 AVL V35 Clemson V20N **OCR** (L–22, 20)

WASHINGTON/BALTIMORE METRO AREA—Continued

From Washington only

Charleston, W. Va.	**CSN** V143 V156N V174 V4 (L-22)
Charlotte	**BRV** V3 RDU V194 Weddington (L-22, 20)
Dallas	**CSN** V887 **DAL** (L-22, 21, 14, 13)
Greensboro	**CSN** V140 MOL V143 Leaksville (L-22)
Harrisburg	**Ashburn** V8N V223 (L-24)
Jacksonville	**BRV** V3 **St. Marys** (L-22, 20, 19)
Memphis	**CSN** V887 Fisherville (L-22, 21, 14)
Miami	**BRV** V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Nashville	**CSN** V887 **Lebanon** (L-22, L-21)
New Orleans	**CSN** V875 **Madison** (L-22, 20, 14, 18)
Norfolk Metro Area	**BRV** V286 Tappahannock V213 HPW (L-22)

From Baltimore only

Jacksonville	V93 V213 V20 V157 V155 V3 **St. Marys** (L-24, 22, 20, 19)

From Dulles Intl only

Kennedy	**EMI** V166 EWT V157 **RBV** or **EMI** V166 V239 V238 ACY V1 **BGT** (L-24)
Jacksonville	V39E GVE V155 FAK V3 **St. Marys** (L-24)
LaGuardia	**EMI** V166 EWT V157 RBV V213 **JFK** (L-24)
Miami	V39E GVE V155 FAK V806 ILM control 1150 Sturgeon drct Tarpon drct PBI V159E **Oakland** (L-22, 20, 19)
Newark	**EMI** V166 EWT V433 **Rocky Hill** (L-24)
Philadelphia	**MRB** V251 V12 **ESR** (L-24)

WICHITA

Oklahoma City	Mayfield V77 PNC V77E **Stillwater** (L-6)
Kansas City	White Water V77 TOP V4N **Farley** (L-6)

STANDARD INSTRUMENT DEPARTURES (SIDs)

(Explantory information is provided in Section II–6)

CALIFORNIA

Fresno Air Terminal

In narrative form only

PINEDALE ONE DEPARTURE

Via direct Fresno VORTAC, then via (transition) or (assigned route). Castle Transition—Via Fresno 273 and Castle 150 radials to Castle VOR.

BOWLES ONE DEPARTURE

Via direct Fresno radio Beacon: then a 135 magnetic bearing from the Fresno radio beacon to intercept the Los Banos 084 radial at or above 3,000 feet; then via Los Banos 084 radial to the Fresno 141 radial. Pixley Transition—Turn right via Fresno 141 and Bakersfield 322 radials to Bakersfield. Exeter Transition—Continue via Los Banos 084 radial to intercept and proceed via Fresno 123 and Portersville 323 radials to Porterville.

CONNECTICUT

Bradley Field, Windsor Locks

Narrative form only

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeepsie VOR 089 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 357 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD THREE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 100° radial to V16, V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at (as assigned by ATC). Thence via (assigned route).

MADISON THREE DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via 360° radial Hartford VOR to Hartford VOR; thence direct Madison VOR; thence V475 to Deer Park VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR at (as assigned by ATC), thence via (assigned route).

HARTFORD THREE DEPARTURES

Via direct Hartford VOR. Hartford VOR 258 radia to Yale Intersection. Cross Madison VOR 360 radial a or below 4,000 feet. Cross Yale Intersection at (as as signed by ATC), then via (assigned route).

Concurrently cancel Avon One. Stafford Two, Madiso Two, Hartford Two Departures.

●FLORIDA

Miami International Airport

Effective April 1, 1965

GAINESVILLE THREE DEPARTURE

Via the Miami Vortac 296 radial and the Lakelan Vortac 174 radial to Lakeland Vortac thence direc Gainesville Vortac.

Concurrently cancel Gainesville Two Departure.

●MASSACHUSETTS

Laurence G. Hanscom Field, Bedford

In Narrative form only

MANCHESTER THREE DEPARTURE

Via 292° magnetic heading to intercept VORTAC 21 Radial; then via Manchester VORTAC 210 Radial t Manchester VORTAC. Cross Gardner VORTAC 0 Radial/Manchester VORTAC 10 mile DME fix at (a assigned by ATC). Then via (transition) or (assigne route). Albany Transition—Via Manchester VORTA 290 Radial and Albany VORTAC 097 Radial to Alba VORTAC. Kennebunk Transition—Via Manchest VORTAC 060 Radial and Kennebunk VOR 242 Radi to Kennebunk VOR.

PUTNAM FIVE DEPARTURE

Via Gardner VORTAC 112 Radial, Putnam VORTA 026 Radial/Gardner VORTAC 17 mile DME fix to Pu nam VORTAC. Intercept Putnam VORTAC 026 Radi at (as assigned by ATC). Cross Gardner VORTAC 14 Radial/Putnam VORTAC 23 mile DME fix at (as as signed by ATC). Then via (transition) or assigne route). Kennedy Transition—Via Putnam VORTAC 21 Radial to intercept J575 thence J575 to Kennedy VOR TAC. Huguenot Transition—Via Putnam VORTAC 27 Radial to intercept J77 thence J77 to Huguenot VOR TAC.

•NEVADA

Reno Municipal Airport Nev

Effective April 29, 1965

CARSON CITY THREE DEPARTURE

Climb within 3 miles of Reno Airport to cross the rport at or above 5400'. Then via Reno ILS localizer uth course to Washoe Intersection. Cross Washoe at above 10,000'. Then via (transition) or (assigned ute). **Wabuska Transition:** Via heading 085 to intercept 05. **Lake Tahoe Transition:** Hold south of Washoe in-section on the Reno 180 radial right turns, until aching (minimum 12,000') then inbound via Lake hoe 060 radial to intercept (V28/V113/V494/V6).

NOTE: This SID requires a ceiling of at least 000' visibility 2 miles, and a minimum climb rate of 280' per mile to 9000'

NEW YORK

Hancock Airport, Syracuse

In narrative form only

KIRKVILLE ONE DEPARTURE

Via front course Syracuse ILS and Georgetown VOR radial to Georgetown VOR; cross Syracuse ILS LOM 2,000 feet; cross Utica VOR 277 radial at 5,000 feet. en via (assigned route). Take-off Runway 14—Turn t after departure direct to Syracuse ILS LOM.

MONROE ONE DEPARTURE

Via front course Syracuse ILS, Georgetown VOR 352 lial to West Monroe Intersection, cross Syracuse ILS M at 2,000 feet. Then via (transition) or (assigned ute). Florence Transition—Via Syracuse VORTAC 050 lial and V145 to Utica VOR. Syracuse Transition—Via racuse VORTAC 050 radial to Syracuse VORTAC. laski Transition—Via Georgetown VOR 352 radial and 9 to Pulaski Intersection. Take-off Runway 14—Turn t after departure direct to Syracuse ILS LOM.

OHIO

Youngstown Mun Arpt.

In narrative form only

SALEM THREE DEPARTURE

Via Youngstown VOR 197 radial to Ellwood City RTAC 302 radial. Cross Akron VORTAC 084 radial 3000 or above. Then via Ellwood City VORTAC 302 lial to the Ellwood City VORTAC. Cross Ellwood y VORTAC (as assigned by ATC), then via assigned ute.

Departing aircraft shall be established on the Youngs-wn VOR 197 radial within 10 miles of the Youngstown R.

RHODE ISLAND

T. F. Green Arpt., Providence

In narrative form only

WARWICK ONE DEPARTURE

Takeoff Rnwy 5L/R-34—turn right to 160 heading as soon as practicable after leaving 500'. Climb on 160 heading to intercept Quonset Pt. VOR 038 radial. Takeoff Rnwy 16—Maintain rnwy heading to intercept Quonset Pt. VOR 038 radial. Takeoff Rnrwy 23L/R—Turn left to 080 heading as soon as practicable after leaving 500'. Climb on 080 heading to intercept Quonset Pt. VOR 038 radial. Radar vector to Providence VOR 132 radial to Quonset Pt. VOR 038 radial to Quonset Pt. VOR thence via Quonset Pt. VOR 218 radial to V-46. Cross Quonset Pt. VOR at 5000' or below. Cross Norwich VORTAC 124 radial at 7000'. Cross Hampton VORTAC 082 radial (as assigned by ATC) then via (assigned route).

STERLING TWO DEPARTURE

Takeoff Runway 34-5L/R—turn left to 250 heading as soon as practicable after leaving 500 feet. Climb on 250 heading to intercept Providence VOR 284 radial. Takeoff Runway 23L/R 16—turn right to 340 heading as soon as practicable after leaving 500 feet. Climb on 340 heading to intercept Providence VOR 284 radial. Radar vector to Providence VOR 284 radial thence via Providence VOR 284 radial to Sterling VHF intersection. Cross Sterling VHF intersection at / as assigned by ATC/then via/transition/or/assigned/route. Riverhead Transition via V16/V879.

UTAH

Salt Lake City Mun No. 1 Arpt

Effective April 1, 1965

Cancel Stansbury Three Departure.

ADDITIONAL SIDs

In addition to the above, the following areas have SID's published separately in graphic form in the C & GS low altitude chart package.

Arizona

Sky Harbor Airport, Phoenix
Tucson Int'l. Airport ,Tucson

California

Lindbergh Airport, San Diego
Lockheed Air Terminal, Burbank
Long Beach Mun Airport, Long Beach
Los Angeles Int'l Airport, Los Angeles
Meadows Airport, Bakersfield
Monterey Peninsula Airport
Oakland Int'l. Airport, Oakland
Ontario Int'l Airport, Ontario
San Francisco Int'l. San Francisco
San Jose Mun. Airport, San Jose
Santa Barbara Mun. Airport, Santa Barbara

Colorado

Stapleton Airport, Denver

District of Columbia

Washington National Airport, D.C.

Florida

Imeson Airport, Jacksonville
Miami Int'l. Airport, Miami

Illinois

O'Hare Int'l. Airport, Chicago

Massachusetts

Logan Int'l. Airport, Boston*

Nevada

McCarran Airport, Las Vegas
Reno Mun. Airport, Reno

New Jersey

Newark Airport, Newark

New Mexico

Albuquerque Sunport/Kirtland AFB, Albuquerque

New York

John F. Kennedy Airport, New York
La Guardia Airport, New York
Westchester County Airport, White Plains

Ohio

Burke Lakefront Airport, Cleveland

Oregon

Medford Mun. Airport, Medford

Pennsylvania

Philadelphia Int'l. Airport, Philadelphia

Utah

Salt Lake City Mun. No. 1 Airport, Salt Lake City

Wyoming

Casper Air Terminal, Casper
Cheyenne Mun. Airport, Cheyenne

SUBSTITUTE ROUTE STRUCTURE
SHUT DOWN OF ENROUTE NAVIGATION AIDS

An extensive Airways Modernization Program is currently being effected, which requires the scheduled temporary shutdown of selected enroute navigation aids. This action will affect associated airways/routes, MEA's, etc., and will obsolete related information shown on the Enroute Low-Altitude, and High-Altitude U.S. charts. These facilities may be shutdown and/or returned to operation during the period between publication dates of the Enroute U.S. Charts. During this shutdown period the following Substitute Route Structure is operational. NOTAMS are published to cover any change in status of these facilities and pilots are advised to check NOTAMS thoroughly prior to each operation. Pilots are further advised to contact FAA Flight Service Stations regarding any doubtful status of enroute navigation aids or airways.

CALIFORNIA

FT JONES "FJS" VOR SHUTDOWN

18. VOR will be shut down until aprxly April 16. For substitute route cture during shutdown use the following:

Low Altitude

ays	Existing Airways	Substitute Routes	MEA	MAA
3...	Shasta INT to Talent INT	Shasta INT to Talent INT via RBL VORTAC 324 rad and MFR VORTAC 156 rad	15,000	17,500
3W.	FJS VOR to MFR VORTAC	None		
3E.	FJS VOR to the dog leg of V23E (SIY RBn)	None		

Existing Reporting Points	Temporary Reporting Points	MRA
VOR	None	
legate INT	None	

BANOS "LSN" VOR SHUTDOWN

ch 15, VOR will be shut down until aprxly April 15. For substitute e structure during shutdown use the following:

Low Altitude

ays	Existing Airways	Substitute Routes	MEA	MAA
3W-	LSN VOR to Mendota Int	LSN Int to Mendota Int via FAT VORTAC 241 rad	5,000	17,500
3W- 3 13	LSN VOR to Volta Int	LSN Int to Volta Int via SCK VORTAC 147 rad	5,500	17,500
7.. 3	LSN VOR to Cathedral Int	LSN Int to Cathedral Int via OAK VORTAC 114 rad	12,500	17,500
Airways	Existing Airways	Substitute Routes	MEA	MAA
		MCA LSN Int N-bnd 12,500		
V-107..	LSN VOR to AVE VORTAC	LSN Int to AVE VORTAC via AVE VORTAC 313 rad	10,000	17,500
		MCA LSN Int SE-bnd 10,000		
V-230..	LSN VOR to SNS VORTAC	LSN Int to Rancho Int via SNS VORTAC 068 rad	12,000	17,500
		MCA LSN Int W-bnd 12,000		
		Rancho Int to SNS VORTAC via SNS VORTAC 068 rad	8,000	17,500
V-113..	LSN VOR to ROM VOR	LSN Int to ROM VOR via ROM VOR 335 rad	7,000	17,500
		MCA LSN Int S-bnd 5,500		

Existing Reporting Points	Temporary Reporting Points	MRA
LSN VOR	FAT VORTAC 241 rad ROM VOR 335 rad	5,000
Mendota Int	FAT VORTAC 241 rad MER VOR 173 rad	4,500
Volta Int	SCK VORTAC 147 rad MER VOR 260 rad	3,000
Cathedral Int	SNS VORTAC 009 rad ROM VOR 315 rad OAK VORTAC 114 rad	7,000
Rancho Int	SNS VORTAC 068 rad ROM VOR 315 rad	8,000
Fowler Int	FAT VORTAC 141 rad FRA VOR 171 rad	2,500
Turlock Int	LIN VORTAC 124 rad MER VOR 353 rad	3,000

NAPA "APC" VORTAC SHUTDOWN

March 23, VORTAC will be shut down until aprxly March 25. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-87	SFO VOR to Lake Int	SFO VOR to Lake Int via SFO VOR 343 rad	5,500	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
Napa VORTAC	None	
Lake Int	SFO VOR 343 rad SAC VORTAC 269 rad	5,500
Calistoga Int	UKI VORTAC 112 rad ILS VORTAC 205 rad	6,500
Cordelia Int	OAK VORTAC 347 rad SAC VORTAC 227 rad	5,000
Bay Point Int	OAK VORTAC 022 rad SCK VORTAC 268 rad	5,000
College Int	None	
San Ramon Int	None	

ILLINOIS

JOLIET "JOT" VORTAC SHUTDOWN

VORTAC will be shutdown until aprxly March 19, 1965. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-9, 116	API VOR to JOT VOR	API VOR to Tmpry JOT Int via API 212 rad	2,000	17,500
V-69, 173, 262	EDZ Rbn to Big Run Int	MX Rbn to Tmpry Big Run Int via MX Rbn 246 Brg	2,000	17,500
V-69, 262	Big Run Int to JOT VOR	Big Runint to Tmpry JOT Int via MX Rbn 246 Brg	2,000	17,500
V-8, 92	CGT VOR to JOT VOR	CGT VOR to Tmpry JOT Int via CGT 272 rad	2,300	17,500
V-38, 171	EON VOR to JOT VOR	EON VOR to Tmpry JOT Int via EON 303 rad	2,100	17,500
V-429	RBS VOR to JOT VOR	RBS VOR to Tmpry JOT Int via RBS 350 rad	3,300	17,500
V-9, 69	PNT VOR to JOT VOR	PNT VOR to Tmpry JOT Int via PNT 020 rad	2,500	17,500
V-116	Washburn Int to Marseilles Int	Washburn Int to Tmpry Marseilles Int via PIA 048 rad	3,000	17,500
V-116	Marseilles Int to JOT VOR	None		
V-945, 262	BDF VOR to JOT VOR	BDF VOR Tmpry JOT Int via BDF 064 rad	3,300	17,500
V-38	Annawan Int to Triumph Int	Annawan Int to Tmpry Triumph Int via MLI 077 rad	4,000	17,500
V-38	Triumph Int to JOT VOR	None		

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-8, 171	Malta to JOT VOR	Malta Int to Tmpry JOT Int via RFD 133 rad	3,000	17,5
V-429	Bartlett Int to JOT VOR	None		

The following direct routes are authorized:

Marseilles Int to API VOR via API 222 rad	3,000	17,5
Bartlett Int to API VOR via API 338 rad	2,500	17,5

Existing Reporting Points	Temporary Reporting Points	MR
JOT VOR	API 212 rad and EON 303 rad	2
Big Run Int	API 133 rad and MX Rbn 246 Brg	2
Manteno Int	EON 303 rad and RBS 005 rad	2
Morris Int	PNT 020 rad and EON 270 rad	2
Marseilles Int	PIA 048 rad and PNT 349 rad	3
Hinckley Int	RFD 133 rad and API 267 rad	3
Bartlett Int	API 338 rad and ORD 275 rad	2
Warren Int	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MA
J-30	ODI VOR to JOT VOR	ODI VOR to Tmpry JOT Int via ODI 131 rad	18,000	45
J-82	Int of J-30 and J-82 to JOT VOR	Int of J-30 and J-82 to Tmpry JOT Int via ODI 131 rad	18,000	45
J-35, 87,	OBK VOR to JOT VOR	OBK VOR to Tmpry JOT Int via OBK 202 rad	18,000	45
J-30	FWA VOR to JOT VOR	FWA VOR to Tmpry JOT Int via FWA 284 rad	18,000	45
J-35, 101	CAP VOR to JOT VOR	CAP VOR to Tmpry JOT Int via CAP 028 rad	18,000	45
J-18, 26, 87	BDF VOR to JOT VOR	BDF VOR to Tmpry JOT Int via BDF 064 rad	18,000	45

Existing Reporting Points	Temporary Reporting Points	MR
JOT VOR	BDF 064 rad and OBK 202 rad	18

MASSACHUSETTS

BOSTON "BOS" VORTAC SHUTDOWN

VORTAC shutdown For substitute route structure during shutdown u the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MA
V-3	BOS VOR to Ipswich Int	029_ brg from BOS RBN to Ipswich Int	2,000	17,5
	Ipswich Int to ENE VOR	029_ brg from BOS RBN to ENE VOR 212 rad to ENE VOR	3,000	17,5
	BOS VOR to Millbury Int	269_ brg from BOS RBN to Millbury Int	3,000	17,5
V-141	BOS VOR to Cohasset Int	150_ brg from BOS RBN to Cohasset Int	2,000	17,5

Continued on next

ways	Existing Airways	Substitute Routes	MEA	MAA
	Cohasset Int to HYA VOR	150. brg from BOS RBN to HYA VOR 348 rad to HYA VOR	3,000	17,500
451..	BOS VOR to HTM VOR	194. brg from BOS RBN to HTM VOR 014 rad to HTM VOR	2,000	17,500
16...	BOS VOR to Woonsocket Int	236. brg from BOS RBN to Woonsocket Int	2,000	17,500
1....	BOS VOR to Leominster Int	296. brg from BOS RBN to Leominster Int	2,700	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
3 VOR	BOS RBN	1,000
pper Int	103. brg from BOS RBN and HTM VOR 056 rad	1,500
e Int	116 brg from BOS RBN and 029. brg from TUK RBN	4,000
wich Int	029. brg from BOS RBN and MHT VOR 13d2 ra	1,800
asset Int	150. brg from BOS RBN and HTM VOR 056 rad	2,000
nt Rock Int	150. brg from BOS RBN and HTM VOR 099 rad	3,000
pole Int	236. brg from BOS RBN GDM VOR 138 rad	1,800
ck Int	269. brg from BOS RBN and GDM VOR 128 rad	3,000
mingham Int	269. brg from BOS RBN and PUT VOR 057 rad	3,000
tboro Int	269. brg from BOS RBN and GDM VOR 146 rad	3,000
bury Int	HFD VOR 057 rad and GDM VOR 164 rad, or "OR" (Worcester LOM)	3,000
dleton Int	359. brg from BOS RBN and GDM VOR 101 rad	1,500
erhill Int	359. brg from BOS RBN and MHT VOR 132 rad	1,800
ere Int	029. brg from BOS RBN and BED ILS Back Course	1,000
blehead Int	065. brg from BOS RBN and MHT VOR 145 rad	1,000
nolia Int	065. brg from BOS RBN and MHT VOR 132 rad	1,500
s Int	236 brg from BOS RBN and HTM VOR 295 rad	1,800

High Altitude

rays	Existing Airways	Substitute Routes	MEA	MAA
7...	BOS VORTAC to ACK VORTAC	166. brg from BOS RBN to TUK RBN	18,000	45,000
7..	BOS VORTAC to PLB VORTAC	339. brg from BOS RBN to PLB VORTAC 159 rad to PLB	18,000	45,000
J-82...	BOS VORTAC to ALB VORTAC	339. brg from BOS RBN to ALB VORTAC 097 rad to ALB	18,000	45,000
J-77	BOS VORTAC to HUO VORTAC	267. brg from BOS RBN to HUO VORTAC 080 rad to HUO	18,000	45,000
J-77	BOS VORTAC to ENE VOR	029 brg from BOS RBN to ENE VOR 212 rad to ENE	18,000	45,000
J-16, 94	BOS VORTAC to ALB VORTAC	296 brg from BOS RBN to ALB VORTAC 113 rad to ALB VORTAC	18,000	45,000
J-575	BOS VORTAC to JFK VORTAC	246. brg from BOS RBN to JFK VORTAC 061 rad to JFK	18,000	45,000
J-575, CAE 1141	BOS VORTAC to QI VOR	080. brg from BOS RBN to QI VOR 270 rad to QI	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
BOS VORTAC	BOS RBN	18,000
Cape Intersection	116. brg from BOS RBN and 029. brg from TUK RBN	18,000

HYANNIS HYA VOR SHUTDOWN

About April 1 VOR will be shutdown until aprxly April 12 for freq change to 108.6 mc. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-141..	HYA VOR to BOS VOR 148 rad	344. brg from HY LOM to BOS VOR 148 rad	3,000	17,500
	ACK VOR to HYA VOR	ACK VOR 357 rad to HYA VOR	1,800	17,500
V-167..	Dennis Int to HYA VOR	MVY VOR 060 rad to HYA VOR	2,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
HYA VOR	ACK VOR 357 rad and MVY VOR 060 rad	2,000
Craigville Int	ACK VOR 357 rad and MVY VOR 080 rad	1,800
Dennis Int	PVD VOR 115 rad and MVY VOR 060 rad	2,500
Muskeget Int	None	

MICHIGAN

SAULT STE MARIE SMM VOR SHUTDOWN

March 22, VOR will be shutdown until aprxly March 26, for substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-300, 462	FSP VOR to SSM VOR	FSP VOR to SSM Rbn via FSP 122R and SSM Rbn 301 Brg	2,300	17,500
V-300N	FSP VOR to SSM VOR	FSP VOR to SSM Rbn via FSP 088R and SSM Rbn 330 Brg	2,400	17,500
V-193	PLN VOR to SSM VOR	PLN VOR to SSM Rbn via PLN VOR 006R and SSM Rbn 211 Brg	2,600	17,500
V-300	VV VOR to SSM Rbn	VV VOR to SSM Rbn via VV 315R and SSM Rbn 129 Brg	6,000	17,500
V-300N	VV VOR to SSM Rbn	VV VOR to SSM Rbn via via R-23 to ZE LFR, thence via ZE LFR NW course & SSM 116 Brg	6,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SSM VOR	SSM Rbn	2,300
Pine Int	None	
St. Joseph Int	None	

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-101	GRB VOR to SSM VOR	GRB VOR to SSM Rbn via GRB 053R & SSM Rbn 240 Brg	18,000	45,000
J-500, HL-500	QT LFR to SSM VOR	QT LFR to SSM Rbn via QT LFR 295 Brng & SSM Rbn 305 Brg	18,000	45,000
J-500 HL-500	ZE LFR to SSM VOR	ZE LFR to SSM Rbn via ZE LFR NW course & SSM Rbn 116 Brg	18,000	45,000

Existing Reporting Points	Temporary Reporting Points	MRA
SSM VOR	SSM Rbn	18,000

SAGINAW "MBS" VOR SHUTDOWN

About April 5, VOR will be shutdown until aprxly April 9. For substitute route structure during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-216	ECK VOR to MBS VOR	ECK VOR to Temp MBS Int via ECK 290R	3,500	17,500
V133	FNT VOR to MBS VOR	FNT VOR to Temp MBS Int via FNT 340R	3,000	17,500
V-46	St. Johns Int to MBS VOR	St. Johns Int to Temp MBS Int via LAN 031R	3,000	17,500
V-274	Byron Int to MBS VOR	Byron Int to Temp MBS Int via GRR 275R to GRR VOR	2,700	17,500
		Thence via GRR 055R to Temp Ada Int	2,700	17,500
		Thence via GRR 055R to Temp Orleans Int	4,000	17,5
		Thence via GRR 055R to Temp MBS Int.	5,000	13,0
V-216	Trufant Int to MBS VOR	Trufant Int to Temp MBS Int via MKG 076R	9,500	17,5
V-133	Lake City Int to MBS VOR	Lake City Int to Temp MBS Int via TVC 138R	11,500	17,5

Existing Reporting Points	Substitute Reporting Points	MRA	MA
MBS VOR	LAN 031R, ECK 290R	3,000	17,5
Wheeler	None		
Fosters	FNT 340R, ECK 279R	3,500	17,5
Vernon	None		
Orleans	GRR 055R, LAN 321 rad	4,000	17,5
Ada	GRR 055R, LAN 297 rad	2,700	17,5

NEBRASKA

GRAND ISLAND "GRI" VORTAC SHUTDOWN

About April 5, TACAN portion of VORTAC will be shutdown until apn April 30 for mod. VOR portion will be shutdown April 19 until apr April 23.

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MA
V6	LBF VOR to GRI VOR	LBF VOR to Tmpry GRI Int via LBF VOR 079 rad	12,000	17,5
V6, 8	OMA VOR to GRI VOR	OMA VOR to Tmpry GRI Int via OMA VOR 256 rad	11,000	17,5
V8	HCT VOR to GRI VOR	HCT VOR to Tmpry GRI Int via HCT VOR 062 rad	13,000	17,5
V138	RAY VOR to GRI VOR	RAY VOR to Tmpry GRI Int via RAY VOR 264 rad	10,500	17,5
V8S	HCT VOR to GRI VOR	None		

Existing Reporting Points	Temporary Reporting Points	MR
GRI VOR	Tmpry GRI Int—OMA VOR 256 rad and OBH VOR 165 rad	10,5

WOLBACH "OBH" VORTAC SHUTDOWN

About Apr 5, VORTAC will be shut down until aprxly Apr 9 for dual mon installation. For substitute route structure during shutdown, use fo

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MA
V172	LBF VOR to OBH VOR	None		
V172, 846	EOL VOR to OBH VOR	EOL VOR to Tmpry OBH Int via EOL VOR 259 rad	11,000	17,50

Continued on next page

ways	Existing Airways	Substitute Routes	MEA	MAA
219, 848	Int V-219 & V-6 OBH VOR	None		
219	OFK VOR to OBH VOR	OFK VOR to Tmpry OBH Int via OFK VOR 219 rad	11,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
BH VOR	Tmpry OBH Int—EOL VOR 259 rad and GRI VOR 345 rad	11,000

Jet Routes

ways	Existing Routes	Substitute Routes	MEA	MAA
4	DSM VORTAC to BFF VORTAC	DSM VORTAC to BFF VORTAC via DSM VORTAC 254 rad and OMA VORTAC 071 rad to OMA VORTAC; thence via the OMA VORTAC 261 rad and LBF VORTAC 073 rad to LBF thence via the LBF VORTAC 281 rad and BFF VORTAC 098 rad to BFF	FL 180	FL 450
	or alternate			
4	DSM VORTAC to HCT VORTAC	DSM VORTAC to HCT VORTAC via DSM VORTAC 254 rad and OMA VORTAC 071 rad to OMA: thence via the OMA VORTAC 253 rad and HCT VORTAC 066 rad to HCT	FL 180	FL 450

Existing Reporting Point	Temporary Reporting Point
H VORTAC	None

OREGON

DFORD "MFR" VORTAC SHUTDOWN

il 19, VORTAC will be shutdown until aprxly April 24 for mod. For stitute route structure during shutdown use the following:

Low Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
1	FJS VOR to Curtin Int	FJS VOR to MFR Int via FJS VOR 337 rad	11,500	17,500
		MFR Int to Tiller FM via EUG VOR 152 rad	16,000	17,500
		Tiller FM to Curtin Int via EUG VOR 152 rad		
		N-bnd	12,000	17,500
		S-bnd	16,000	17,500
3W	MFR VOR to FJS VOR	None		
3W	MFR VOR to RBG VOR	MFR Int to RBG VOR via via RBG VOR 136 rad	11,500	17,500
22	CEC VOR to MFR VOR	None		
3E	SIY RBn to MFR VOR	None		
V121	MFR VOR to RBG VOR	MFR Int to Tiller FM via via EUG VOR 152 rad	16,000	17,500
		Tiller FM to RBG VOR via RBG VOR 107 rad		
		NW-bnd	5,500	17,500
		SE-bnd	16,000	17,500
V122	Talent Int to Pinehurst Int		11,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
MFR VOR	MFR Int: FJS VOR 337 rad and LMT VOR 271 rad	11,400
Klamath Junction Int	None	
Talent Int	Talent Int: FJS VOP 337 rad and LMT VOR 248 rad	11,000
Applegate Int	None	
Milo Int	Tiller FM	
Rogue River Int	None	

MFR VOR 250 rad control area extension unusable; no navigational guidance.

NEWPORT "ONP" VOR SHUTDOWN

About Mar 22, VOR will be shut down until aprxly Mar 26 for mod. For substitute route structure during shutdown use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-27	OTH VOR to AST VOR	OTH VOR to AST VOR via OTH VOR 344 rad and AST VOR 163 rad	10,000	17,500
Changeover point--51NM from AST.				
V-99	UBG VOR to ONP VOR	UBG VOR to ONP Int via UBG VOR 204 rad	7,000	17,500
Control Area 1419:		Control Area 1419 will be without course guidance during period of shutdown.		

Existing Reporting Points	Temporary Reporting Points	MRA
ONP VOR	Tmpry ONP Int: UBG VOR 204 rad and EUG VOR 287 rad	7,000
Kings Valley Int	Tmpry Airline Int: UBG VOR 183 rad and 240 M brg from SL LOM	4,000

PENNSYLVANIA

CLARION "CIP" VOR

Due to restriction on new VOR freq 112.9 mc the following substitute route is efctv immediately:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-119, 804	CIP VOR to IRL VORTAC	CIP VOR to IRL VORTAC via CIP 228 and IRL VORTAC 047 rad		see below
MEA IRL to Freeport Int 3,000.		Freeport Int to CIP 3,300, MAA 17,500.		

Existing Reporting Points	Temporary Reporting Points
Freeport Int	EWC VORTAC 120 rad and IRL VORTAC 047 rad

LANCASTER "LRP" VOR SHUTDOWN

About Apr 1, VOR will be shut down until aprxly Apr 12, 1965 for freq-change to 117.3 mc. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-39–93	ABE VORTAC to LRP VOR	ABE VORTAC 237 rad to Tmpry LRP Int	4,000	17,500
V-39	EMI VOR to LRP VOR	EMI VOR 047 rad to Tmpry LRP Int	3,000	17,500
V-93	BAL VORTAC to	None		
V-251	PTW VOR to LRP VOR	PTW VOR 269° rad to Tmpry LRP Int	3,000	17,500
	LRP VOR to MRB VORTAC	None		
V-474	THS VOR to Big Mount Int	THS VOR 088 rad to Tmpry Big Mount Int	5,000	17,500
	Big Mount Int to LRP VOR	None	5,000	17,500
V-162	ABE VORTAC to Reinholds Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
York Springs Int	THS VOR 088° rad and HAR VORTAC 204° rad	3,000
Big Mount Int	THS VOR 088° rad and HAR VORTAC 173° rad	3,000
Hanover Int	None	
Melrose Int	None	
Norris Int	None	
Reinholds Int	ABE VORTAC 237° rad and PTW VOR 284° rad	4,000
Fleetwood Int	RAV VORTAC 111° rad and ABE VORTAC 237° rad	4,000
Hampton Int	HAR VORTAC 204° rad THS VOR 096° rad	3,000
LRP VOR	Tmpry LRP Int: PTW VOR 269° rad and RAV VORTAC 160° rad	3,000
Honey Brook Int	ESR VORTAC 331° rad and PTW VOR 269° rad	2,100

WILKES-BARRE "AVP" VORTAC SHUTDOWN

About Apr 1, VORTAC will be shut down until aprxly Apr 12, 1965 for freq/channel change to 111.6 mc/53. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V30	SAX VOR to ELM VOR	None		
V116, 880	SAX VOR to SFK VOR	None		
V58, 100	POU VOR to TOH VOR or IPT VOR	Via V-146 to intercept TOH VOR 048 rad to TOH, thence via V-188 IPT VOR	4,500	17,500
V153	STW VOR to Harmony Int	None		
V-29	ABE VOR to HCM VOR	None		
V126	SFK VOR to HUO VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Pocono	ABE VOR 008 rad and TOH VOR 141 rad or TVE VOR 321 rad	3.5
Montrose	BGM VOR 155 rad and DNY VOR 246 rad or IPT VOR 070 rad	4.0
Scranton	None	
Lopez	None	
Thompson	None	
Rowlands	HUO VOR 314 rad and STW VOR 008 RAD	4.0

TEXAS

CORPUS CHRISTI (NAVY CORPUS) "NGP" VOR SHUTDOWN

About Apr 1, VOR will be shut down until aprxly Apr 8, 1965 for fr change to 109.2 mc. For substitute route structure during shutdown u flwg:

Low Altitude

Existing Reporting Points	Temporary Reporting Points	MRA
Woodsboro Int	CRP VOR 030 rad and NIR VOR 118 rad	
Copano Int	CRP VOR 045 rad and NIR VOR 123 rad	1.5
Klein Int	CRP VOR 105 rad and NIR VOR 138 rad	1.5
Taft Int	CRP VOR 030 rad and NIR VOR 140 rad	1.5

UTAH

BRYCE CANYON "BCE" VORTAC SHUTDOWN

VORTAC down until aprxly Mar 25, 1965 for mod. For substitute ro structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-8	Hurricane Int. to HVE VORTAC	None		
		None		
V-8S	BCE VORTAC to HVE VORTAC	None		
V-8N	CDC VOR to BCE VORTAC	None		
V-257	Anita Int. to Delano Int	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Delano Int	MLF 072 and DTA 175 rad	12.5
Summit Int	None	

Continued on next pa

High Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
1...	PRC VORTAC to BCE VORTAC to PVU VORTAC	PRC VORTAC to MLF VORTAC via PRC 338 and MFL 157 rad	FL180	450
ngeover Point: 130 NM from PRC				
8 ..	ILC VOR to BCE VORTAC to FMN VORTAC	ILC VOR to MLF VOR via J80	FL180	450
		MLF VOR to FMN VOR-TAC via MLF 096 rad and FMN 279 rad	*FL330	450
ngeover Point: 63NM from MLF				
		(OR)		
3...	ILC VOR to BCE VORTAC to FMN VORTAC	ILC VOR to MLF VORTAC via J80	FL180	450
		VORTAC via MLF 072 rad and HVE 254 rad MLF VORTAC to HVE	FL180	450
ngeover Point: 50NM from MLF				
		HVE VORTAC to FMN VORTAC via HVE 113 rad and FMN 296 rad	*FL180	450
J...	BLD VOR to BCE VORTAC to HVE VORTAC	BLD VOR to HVE VOR-TAC via BLD 038 rad and HVE 220 rad	*FL180	450
ngeover Point: 153 NM from BLD				

NOTE—* MEA is established with a gap in navigational signal coverage

VIRGINIA

ASKI "PSK" VOR SHUTDOWN

VORTAC shut down indefinietly. For substitute route structure during shutdown, use flwg:

Low Altitude

ways	Existing Airways	Substitute Routes	MEA	MAA
7...	FML VOR to PSK VOR	Unusable		
	PSK VOR to EKN VOR	Unusable		
6...	HMV VOR to ROA VOR	HMV 062 rad and ROA 248 rad	7,000	17,500
6N..	BLA VOR to PSK VOR	Unusable		
7W.	HKY VOR to PSK VOR	Unusable		
5 ..	BLF VOR to GSO VOR	BLF 123 rad to intercept 303 Brg to PK LFR to PSK; 148 Brg from PK LFR to intercept GSO 337 rad to GSO	6,000	17,500
9...	BKW VOR to PSK VOR	BKW 157 rad to tmpry PSK Int	6,000	17,500
6..	PSK VOR to SBV VOR	098 Brg from PK LFR to intercept SBV 302 rad to SBV	5,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VORTAC	ROA 248 rad and BKW 157 rad	6,000	17,500

Jet Routes

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-53...	AGC to SPA.....	195 rad AGC to intercept 013 brg to PK LFR to thence 206 brg from PK LFR to intercept PSK; 026 rad SPA to SPA	FL180	FL450
	CRW to RDU.....	149 rad CRW to intercept 313 rad RDU to RDU	FL180	FL450
22 .	TYS to GVE . . .	064 rad TYS to intercept 252 rad GVE to GVE	FL180	FL450
J-48	HRN VORTAC to PSK VORTAC	HRN VORTAC to PK LFR via HRN VORTAC 241 rad and 056 Brg from PK LFR	180	450

Existing Reporting Points	Temporary Reporting Points	MRA
PSK VORTAC.....	PK LFR.....	180
PSK VORTAC	GVE VORTAC 252 rad and GSO VOR 334 rad	180

WEST VIRGINIA

ELKINS "EKN" VORTAC SHUTDOWN

About Apr 1, VORTAC will be shut down until aprxly Apr 12, 1965 for freq 'channel change to 112.8 mc '75. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37...	MGW VOR-EKN VOR-PSK VOR	None		
V-103..	CKB VOR to EKN VOR	Via CKB VOR 163 rad to MGW VOR 201 rad	5,000	17,500
	EKN VOR to ROA VOR	Via CKB VOR 163 rad to ROA VOR 003 rad to ROA	9,000	17,500
V-38...	PKB VOR to EKN VOR	Via PKB VOR 121 rad to MGW VOR 201 rad	5,000	17,500
V-174..	HNN VOR to EKN VOR to LDN VOR	Via HNN VOR 086 rad to CKB VOR 163 rad thence via LDN VOR 279 rad	8,000	17,500
V-4....	CRW VOR to EKN VOR to ESL VOR	Via CRW VOR 069 rad to CKB VOR 163 rad thence via ESL VOR 256 rad	6,000	17,500
V-49..	CRW VOR-EKN VOR	None		
V-156..	EKN VOR-GVE.....	Via MGW VOR 201 rad and GVE VOR 307 rad	14,000	17,500

Continued on next page

Airways	Existing Reporting Points	Temporary Reporting Points	MRA	MAA
V-37, 38	EKN VOR	MGW VOR 201 rad/PKB VOR 121 rad	6,000	17,500
V-103	EKN VOR	MGW VOR 201 rad/CKB VOR 163 rad	5,000	17,500
V-156	EKN VOR	MGW VOR 201 rad/GVE 307 rad	14,000	17,500

WYOMING

MEDICINE BOW "MBW" VOR SHUTDOWN

About Apr 12, VOR will be shut down untiil aprxly Apr 17, 1965. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V6, 810 854	CKW VOR to MBW VOR	CKW VOR to MBW Int via CKW 070 rad	13,300	17,500
V6	MBW VOR to SNY VOR	None		
V85	MBW VOR to CPR VOR	MBW Int to CPR VOR via CPR VOR 155 rad	15,100	17,5
V85W	MBW VOR to CPR VOR via Alcova Int	None		
V118	LAR VOR to MBW VOR	LAR VOR to MBW Int via LAR VOR 324 rad	13,300	17,5
V100, 810, 854	MBW VOR to CDR VOR	None		
V138	MBW VOR to CYS VOR	MBW Int to CYS VOR via CYS VOR 291 rad	13,300	17,5

Existing Reporting Points	Temporary Reporting Points	MR
MBW VOR	CKW VOR 070 rad and LAR VOR 324 rad	13,3
Morton Int	CYS VORTAC 316 rad 30 DME	9
Wheatland Int	None	
Alcova Int	CPR VORTAC 201 rad 22 DME	9

SECTIONAL CHART BULLETIN

The purpose of this Bulletin is to provide a tabulation of the major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical Chart. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot; major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain his chart current. When the Sectional Aeronautical Chart is republished, the corrective tabulation will be removed from this Bulletin.

ABERDEEN

39th Edition, March 4, 1965

No hazardous changes.

•ALBANY

54th Edition, February 4, 1965

Delete Brizee-Harmon arpt 43°05'N, 77°20'W. Delete eposit arpt 42°03'N, 75°25'W. Change Utica VOR freq 13.9 to 108.6. Add obstn 1430' MSL 42°23'15"N, 2°24'14"W. Add obstn 1275' MSL 43°39'24"N, 73°10'-2"W. In western border change Buffalo VORTAC freq 16.5 Ch 112 to 116.4 Ch 111. Delete Dolgeville arpt 3'06"N, 74°45'W. Delete Bridgeport arpt 43°10'N, 5'59"W. Delete The Pines arpt 43°06'N, 74°09'W. Realign airway V496 direct from Utica to Glens Falls.

ALBUQUERQUE

54th Edition, March 4, 1965

Delete 700' transition area at Otto VOR.

•AROOSTOOK

41st Edition, April 30, 1964

Delete Green arpt 46°02'N, 68°16'W. Realign Red 9 irway direct from Montmorency RBn to Bagotville RBn. dd obstn 740' MSL 46°09'00"N, 70°12'17"W. Add bstn 525' MSL 46°10'45"N, 71°20'00"W. Add obstn 5' MSL 46°52'50"N, 71°19'35"W. Add obstn 349' ISL 47°00'00"N, 70°31'00"W. Add obstn 433' MSL 7°16'40"N, 70°12'00"W. Add obstn 593' MSL 46°-6'05"N, 65°55'50"W. Add Burtts RBn freq 350, ident J, class MHW 46°03'52"N, 66°52'13"W. Add Charlo Pvt) RBn freq 203, ident CL, class HW 47°59'N, 6°20'W. Extend Loring AFB Military Climb Corridor -3902 1 mi S & 6 mi N. Realign Fredericton LFR W g from 103°M to 096°M. Delete Presque Isle LFR 6'44"N, 68°04'W. Add Quebec VOR freq 112.8, ident QB lass BVOR M.V. 19°W 46°42'20"N, 71°37'36"W.

Realign airway V 318 direct from Houlton to Quebec dd V314 airway direct from MILLINOCKET to Quebec (135 M Quebec). Delete Clayton Lake arpt 46°37'N, 69°31'W.

•AUSTIN

58th Edition, November 12, 1964

Delete ALLISON RANCH arpt 30°44'N, 102°02'W. Add obstn 2244' MSL 30°18'15"N, 98°51'45"W. Delete SHARPS arpt 31°40'N, 97°44'W. Delete PIERCE Ranch arpt 30°28'N, 101°21'W. Delete Jolly arpt 30°18'N, 98°12'W. Add obstn 1460' MSL 31°38'15"N, 97°48'10" W. Add obstn 2969' MSL 30°36'27"N, 101°38'16"W.

•BEAUMONT

53rd Edition, April 1, 1965

No hazardous changes.

•BELLINGHAM

50th Edtion, December 10, 1964

Add circular restricted area CIR24 aprxly 1/10 mi radius centered at 49°13'N-122°54'W. Add Abbotsford ctl twr freq 278. Delete Comox Rbn 49°39'15"N, 125°-05'30"W. Add Princeton VOR MV 23°E freq 113.9 ident DC class BVOR 49°22'50"N, 120°22'20".

•BIRMINGHAM

58th Edition, October 15, 1964

Delete River arpt 33°49'N, 88°19'W. Delete Lake Purdy Arpt 33°29'N, 86°37'W. Change Maxwell (AF) VOR freq. 116.0 to 110.2. Add obstn 1026' MSL 32°41'57" N, 85°40'54"W. Add obstn 600' MSL 32°27'57"N, 87°07'30"W. Delete Montezuma arpt 32°18'N, 84°01'W. Delete Cobb Airpark arpt 33°52'N, 84°35'W. Add obstn 780' MSL 32°01'27"N, 88°17'16"W. Change obstn 1100' MSL to 1260' MSL 32°38'36"N, 85°14'20"W. Change obstn 390' MSL to 550' MSL 32°30'00"N, 87°43'00"W. Add obstn 467' MSL 32°29'06"N, 86°12'25"W. Delete Henderson Rbn 32°07'02"N, 87°22'28"W.

BOISE

40th Edition, May 28, 1964

Delete Dewitt Place arpt 43°28′N, 120°02′W. Delete Payette FM 44°09′N, 116°55′. Delete Mountain Home FM 43°12′N, 115°42′W.

•BOSTON

55th Edition, March 4, 1965

No hazardous changes.

•BURLINGTON

43rd Edition, November 12, 1964

Extend V196 airway from Utica to Plattsburgh via Utica 016° & Plattsburgh 236°T. Extend V447 airway from Montpelier, Vt. to Sherbrook, P.Q. Canada via the int of Montpelier 020°T & Sherbrook 217°T. Montreal ctl area extended E & NE to join Quebec ctl area. Add obstn 610′ MSL 44°35′09″N, 75°09′30″W. Add obstn 459′ MSL 44°05′40″N, 77°23′00″W. Change Massena VOR freq 112.1 to 114.1 Delete airway beacon code— —, 45°05′45″N, 73°35′10″W. Relocate OTTAWA VORTAC 45°26′32″N, 75°53′48″W revise airways & ctl area to new location. Change Plattsburgh Vortac freq 116.7 Ch 114 to 117.4 Ch 121.

•BUTTE

43rd Edition, February 4, 1965

Correct Great Falls VORTAC ident & code CTF —•—• —— to GTF —•— Correct Buffalo intersection ••—• ••—• 5 mi SE on Billings 300° radial.

•CASPER

49th Edition, April 1, 1965

No hazardous changes.

•CHARLOTTE SECTIONAL CHART

55th Edition, October 15, 1964

Add obstn 1057′ MSL 35°18′36″N, 80°22′31″W. Add Obstn 1250′ MSL 34°03′00″N 78°04′56″W Change FLORENCE VOR freq 115.5 to VORTAC freq 115.2 ch 99. Add TOCCA, GA transition area 5 mi W & 8 mi E of the 360°T radial of TOCCA, GA VOR extending from the VOR to 12 mi N. Add obstn 913′ MSL 35°21′24″N, 79°46′42″W. Delete CLINTON arpt 35°01′N, 78°19′W. Delete FAYETTEVILLE RBn 34°56′N, 78°56′W. Add obstn 1333′ MSL 33°52′54″N, 83°17′02″W. Delete BALLOON AAF arpt 35°11′N, 79°00′W. Add obstn 694′ MSL 35°58′32″N, 78°22′29″W. Change obstn 6738′ MSL to 6766′ MSL 35°44′05″N, 82°17′40″W. In eastern border Change highest obstn 6738′ MSL to 6766′ MSL. Add obstn 1080′ MSL 35°16′13″N, 80°32′13″W. Add obstn 630′ MSL 33°56′58″N, 80°23′29″W. Delete Bridges Air-Park arpt 35°19′N, 81°30′W. Delete Sledge arpt 34°17′ N, 78°43′W.

•CHATTANOOGA

55th Edition, February 4, 1965

Add obstn 1344′ MSL 35°15′35″N, 86°55′39″W. Add obstn 1021′ MSL 35°30′26″N, 86°41′58″W. Add Cross-ville Memorial ctl zone 5 mi radius of arpt with SE extsn. Add Redstone AAF ctl zone 5 mi radius of arpt with N & S extsn.

•CHEYENNE

51st Edition, December 10, 1964

Delete Cyeyenne ctl twr freq 201. Change obstn elev 3830′ MSL to 3930′ MSL 41°05′28′N, 102°10′11″W. Add Alliance ctl zone 5 mi radius of arpt with NW & SE extsns. Add airway V524 direct from Scottsbluff to North Platte. Delete Laramie Rbn 41°20′56″N, 105°41′ 34″W

•CHICAGO

59th Edition, December 10, 1964

Change Ft Wayne VORTAC freq 113.9 Ch 86 to 117.3 Ch 125. Delete Davis arpt 40°29′N, 88°57′W. Change Chicago O'Hare VORTAC freq 111.6 Ch 53 to 113.9 Ch 86. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add Benton Harbor ctl zone 5 mi radius of ROSS arpt with 8 mi. extensions E & W. Add obstn 1119′ MSL 42°05′30″N, 85°19′16″W. Delete PEOTONE arpt 41°20′N, 87°48′W. Add Coldwater RBn freq 2— ident CWM class MHW 41°56′12″N, 85°02′56″W. Add V127 airway direct from Bradford to Polo. Delete Sno Ranch arpt 40°48′N–85°27′W. Add obstn 1440′ UC MSL 41°55′18″N, 88°59′55″W. Add obstn 954′ MSL 42°06′43″ N, 87°58′53″W. Delete UNICOM Elwood arpt 40°15′N 85°50′W. Delete UNICOM Wabash arpt 40°46′N 85°48′W. Delete UNICOM Starke Co arpt 41°17′N 86°38′W.

CINCINNATI

59th Edition February 4, 1965

Delete Greater Cincinnati ctl twr freq 317. Delete Cincinnati Mun-Lunken ctl twr freq 366.

•CLEVELAND

59th Edition, November 12, 1964.

Delete Wheeling RBn 40°06′N, 80°11′W. Delete Tanner arpt 40°22′N, 83°47′W. In northern border change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch 90. Add obstn 1302′ MSL 41°06′31″N, 83°36′02″W. Change Clarion VOR freq 114.9 to 112.9. Delete Bilbobern arpt 40°49′N 80°15′W. Add Creek RBn freq 219 ident CRK class MHW 40°30′21″N, 80°25′17″W. Change Tyrone VORTAC freq 113.9 Ch 86 to 114.9 Ch 96. Add obstn 2706′ MSL 41°07′21″N, 78°26′28″W. Add Indiana (Pvt) RBn freq 242 ident INP class MHW 40°37′54″N 79°03′51″W. Delete Akron ctl twr freq 362. Change Slate Run VOR freq 113.2 to 113.9. Change Tiverton VOR freq 115.8 to 116.5. Change Ellwood City VORTAC freq 112.7 Ch 74 to 115.8 Ch 105. Add obstn 1546′ MSL 40°49′49″N, 80°55′51″W. Delete CANTON CITY arpt 40°51′N, 81°19′W.

•CORPUS CHRISTI

54th Edition, February 4, 1965

Add obstn 569′ MSL 27°44′16″N, 98°05′10″W. Add obstn 474′ MSL 27°32′54″N, 97°52′34″W. Change obstn elev 792′ MSL to 1049′ MSL 27°46′47″N, 97°37′59″W Extend Brownsville transition area N to join Corpus

bristi transition area E to W bndry of W-228. Change arcla VORTAC freq 112.7 Ch 74 to 117.4 Ch 121. Add stn 1294' MSL 27°24'17"N, 98 59'07"W.

DALLAS

60th Edition, February 4, 1965

Add obstn 1268' MSL 32°01'40"N, 97°44'48"W.

DEL RIO

40th Edition, November 12, 1964

No hazardous changes.

•DENVER

53rd Edition, December 10, 1964

Delete Ellicott RBn 38°49'N, 104°22'W. Delete Stapleton Intl ctl twr freq 335. Delete Pueblo ctl twr freq 285. Change obstn 4454' MSL to 4669' MSL 38°29'03"N, 2°45'03"W. Add obstn 5611' MSL 39 44'53"N, 4°39'42"W. Delete Peterson ctl twr freq 215. Delete ults arpt 39°56'N, 102°19'W. Delete UNICOM SKY ANCH arpt 39°45'N, 104°45"W. Delete Langendoerfer pt 39°41'N, 102°22"W. Delete Hanover RBn 38°35'30" 104°24'00"W.

•DES MOINES

52nd Edition, November 12, 1964

Add obstn 1398' MSL 40°13'29"N, 93°07'50"W. Add stn 1210' MSL 40°05'06"N, 93°37'31"W. Add obstn 53' MSL 41°59'18"N, 92°15'42"W. Add obstn 1638' SL 41°38'15"N, 95°26'40"W. Add obstn 1255' MSL °02'33"N, 92°51'35"W. Add obstn 1350' MSL 42°02'09" 93°23'38"W. Add obstn 1430' MSL 42°03'06"N, °47'48"W. Add obstn 1370' MSL 40°10'28"N, °33'22"W. Add obstn 1410' MSL 40°43'15"N, °54'30"W. Add obstn 1420' MSL 41°24'00"N, °58'00"W. Add obstn 1113' MSL 40°41'38"N, 91°23'-"W.

•DETROIT

58th Edition, January 7, 1965

Change Salem VORTAC freq 117.8 Ch 125 to 114.3 Ch . Delete Detroit City ctl twr freq 278. Delete Niagara lls ctl twr freq 272. Delete Port Erie ctl twr freq 278. ld obstn 1316' MSL 42°56'45"N, 83°09'05"W. Add stn 1749' MSL 42°29'01"N, 83°18'44"W. Add tchener RBn freq 251 ident KF class MHW 43°30'30" 80°28'14"W. Change Buffalo VORTAC freq 116.5 Ch 2 to 116.4 Ch 111. Change Erie VORTAC freq 115.7 104 to 112.7 Ch 74. Change Carleton VORTAC freq 3.8 Ch 85 to 115.7 Ch 104. Delete Dunkirk RBn °29'26"N, 79°16'28"W. Delete Nelson arpt 42°34'N, °15'W.

DOUGLAS

42nd Edition, October 15, 1964

Delete Punta Penasco RBn freq 1688. Delete El Datil pt 30°00'N, 112°10'W.

•DUBUQUE

49th Edition, April 1, 1965

No hazardous changes.

•DULUTH

38th Edition, July 23, 1964

Delete Moberg SPB 47 29'N, 91 52'W. Add obstn 1735' MSL 47 53'25"N, 91 52'04"W. Revise Chisholm-Hibbing ctl zone with extsn 8 mi SW. Revise Chisholm-Hibbing transition area with 3 extsns. 13 mi. wide, 18 mi. NE, 12 mi. SW & 18 mi NW of Chisholm-Hibbing arpt. Relocate Duluth RBn 46 50'45"N, 92 21'17"W. Delete Pine Haven seaplane base 46 43'N, 93 19'W. Add obstn 1835' MSL 46 17'08"N, 96°02'06"W. Add transition area 4 nmi each side of a direct radial between Grand Rapids VOR & Hibbing VOR. Delete Duluth International ctl twr freq 278. Realign airway Blue 9 to new Duluth RBn location 46 50'45"N, 92 21'17"W. Add control zone extension W of Duluth International arpt 46 50'N, 92 11'W. Add obstn 1545' MSL 46°31'27" N, 91 16'18" W. Add obstn 1600' MSL 46 19'20"N, 94 09'44"W. Revise V462 airway Bemidji direct to DULUTH. Revise V161 Brainerd to Hibbing via Brainerd 016 M & Hibbing 253 M. Add airway V55 direct from Brainerd to Grand Forks (301 M Brainerd).

•ELKO

43rd Edition, December 10, 1964

Add airway V293 direct from ELKO to ELY (137 M ELKO). Add airway V269 from Ely to int Ely 350 M & Bonneville 255 M.

EL PASO

53rd Edition, March 4, 1965

No hazardous changes.

•FARGO

42nd Edition, March 4, 1965

Add Fargo RBn freq 365 ident FAR class HSAB 47 00'33"N, 96°48'53"W. Add airway V55 direct from Grand Forks to Brainerd (116°M Grand Forks).

GLACIER PARK

37th Edition, October 15, 1964

Delete Waterton Lake SPB 49°03'N, 113°54'W. Add obstn 3355' MSL 49°42'30"N, 112°43'00"W.

•GRAND CANYON

39th Edition, December 10, 1964

Add obstn 9393' MSL 37°18'20"N-108°01'50"W.

GRAND JUNCTION

41st Edition, November 12, 1964

No hazardous changes. Change Hanksville VORTAC freq 115.5 Ch 102 to 115.9 Ch 106. Delete airway beacon site #50, code —— 39°06'N — 112°42'W. Delete Delta arpt beacon 39°23'N, 112°30'W. Add obstn 4788' MSL 38°55'15"N, 110°18'15"W.

•GREEN BAY

50th Edition, December 10, 1964

Add obstn 1448' MSL 44°33'13"N, 89°35'27"W. Delete Lakeland (Private) RBn 45°55'N, 89°43'W. Add obstn 1905' MSL 45°52'52"N, 89°17'25"W. Add airway V193W from White Cloud to Traverse City via the int of White

Cloud 329°T & Traverse City 235°T. Add obstn 1286' MSL 44°46'22''N, 85°40'48''W. Add obstn 1460' MSL 44°26'52''N, 89°24'23''W. Twr comsnd at Phelps-Collins arpt freq 120.9 & 383.1. Delete UNICOM Stevens Point arpt 44°33'N, 89°32'W. Delete UNICOM Alexander South Wood Co arpt 44°22'N, 89°50'W.

HAWAIIAN ISLANDS

17th Edition, December 10, 1964

Delete Maui LFR 20°38'N, 156°27'W.

HUNTINGTON

53rd Edition, February 4, 1965

In southern border change Beckley VOR freq 109.8 to 117.7. Change Martinsburg VORTAC freq 113.8 Ch 85 to 112.1 Ch 58. Add Cumberland RBn freq 317 ident CBE class MHW 39°39'00''N, 78°44'48''W.

•JACKSONVILLE

51st Edition, November 12, 1964

Add obstn 395' MSL 31°49'59''N, 81°45'02''W. Add obstn 546' MSL 32°03'30''N, 81°02'40''W. Add obstn 595' MSL 31°35'24''N, 82°51'26''W. Add obstn 782' MSL 31°31'18''N, 82°48'46''W. Add Waycross VORTAC freq 110.2 Ch 39 ident AYS Class BVORTAC MVO° 31°16'09'' N–82°33'12''W. Change NAS Jacksonville ctl twr freq 340.2 to 355.8. Add obstn 545' MSL 30°04'19''N, 83°31'-28''W. Add obstn 432' MSL 30°21'20''N, 81°45'36''W.

•KANSAS CITY

55th Edition, February 4, 1965

Delete PITTS arpt 39°42'N, 94°55'W. Delete UNICOM ST CHARLES arpt 38°51'N, 90°30'W. Delete UNICOM MEXICO MEMORIAL arpt 39°09'N, 91°49'W.

•KLAMATH FALLS

52nd Edition, April 1, 1965

No hazardous changes.

•KOOTENAI

41st Edition, February 4, 1965

Add Kelowna RBn freq 257 ident LW class HW. 50°03'45''N, 119°24'50''W. Add Rutland RBn freq 374 ident EX class MHW 49°56'20''N, 119°22'30''W.

LA GRANDE

42nd Edition, February 4, 1965

No hazardous changes.

LAKE HURON

39th Edition, May 28, 1964

Extsv airway changes have been made in the SE corner of chart. Add obstn 1083' MSL 44°50'N, 79°20'W. Add obstn 1100' MSL 44°17'N, 78°42'W. Add obstn 1807' MSL 35°40'N, 79°13'W. Add obstn 1831' MSL 45°23'N, 78°59'W. Add obstn 1856' MSL 45°07'N, 78°30'W. Add obstn 1207' MSL 45°03'N, 83°43'W. Change obstn 1600' MSL to 1800' MSL 44°20'N, 78°18'W. Change Wurtsmith AF VOR freq 110.0 to 116.1. Add Kleinburg VOR freq 114.5 ident KG, class VORW, M.V 7°W 43°56'N, 79°40'W. Delete Toronto LFR legs, iden YZ. Alpena, Mich. ctl area is revoked. Alpena, Mich transition area designated 21 mi. radius of Phelps-Collin arpt. with 8 mi. extsn N. Realign V300 airway direct from KLEINBURG to WIARTON & KLEINBURG t OTTAWA. Twr comsnd at Phelps-Collins arpt freqs 120. & 383.1. Add V5 airway direct from Wiarton to Sudbur (013°M Wiarton).

LAKE SUPERIOR

41st Edition, March 4, 1965

No hazardous changes.

LAKE OF THE WOODS

37th Edition, August 20, 1964

Add V129 airway direct International Falls to Kenor Add obstn 1942' MSL 48°49'00''N, 93°53'00''W. Add V12 airway direct Kenora VOR to Kenora LFR.

LEWISTON

42nd Edition, November 12, 1964

Extend V447 airway from Montpelier, Vt. to She brook, P.Q. Canada via the int of Montpelier 020°T SHERBROOK 217°T. Extend W–102 aprxly 5 mi. NW Add V 314 airway direct from MILLINOCKET t QUEBEC (318° M MILLINOCKET).

•LINCOLN

52nd Edition, April 1, 1965

No hazardous changes.

•LITTLE ROCK

47th Edition, January 7, 1965

Change CABOT VOR freq & ident 109.2 LRF to 10 CBT. Add obstn 1080' MSL 35°35'48''N, 95°03'20''W Delete Watts arpt 34°06'N, 90°51'W. Add Fort Smit transition area btn 34°30'N & 36°00'N — 93°30'W 96°00'W. Add obstn 849' MSL 35°26'17'', 94°17'09''W Add obstn 523' MSL 34°41'20''N, 92°18'58''W. Ad obstn 443' MSL 34°25'28''N, 90°07'30''W. Add obstn 1040' MSL 35°17'45''N, 95°21'54''W. Delete UNICOM Downtown arpt 35°09'N, 90°03'W.

•LOS ANGELES

59th Edition, March 4, 1965

Realign & enlarge GEORGE AFB Military Climb Corridor R–2526 aprxly 3 mi SE.

•MIAMI

51st Edition, April 1, 1965

No hazardous changes.

MILES CITY

42nd Edition, October 15, 1964

Delete Solseth arpt 46°02'N, 102°52'W. Delete Nelson arpt 47°57'N, 102°49'W.

•MILWAUKEE

57th Edition, December 10, 1964

In eastern border change Salem VOR freq 117.8 ch 125 114.3 ch 90. Change Chicago Ohare VOR freq 111.6 Ch 3 to 113.9 ch 89. Add obstn 1119' MSL 42°05'30"N, 7°19'16"W. Add BENTON HARBOR MICH ctl zone mi radius of ROSS FIELD arpt 42°07'45"N, 86°25'45" with 8 mi extsns E & W. Add MADISON WISC ctl ne extsn from 5 mi radius zone of TRAUX FIELD pt to 7 mi N of VOR. Add Coldwater RBn freq 224 ent CWM class MHW 41°56'12"N, 85°02'58"W. Change uskegon VORTAC freq 115.6 Ch 103 to 115.2 Ch 99. ld obstn 1440' UC MSL 41°55'18"N-88°59'55"W.

MINOT

41st Edition, March 4, 1965

No hazardous changes.

•MOBILE

56th Edition, February 4, 1965

Add obstn 600' MSL 31°08'11"N—88°25'15"W. Add stn 458' MSL 30°37'27"N—89°08'41"W. Add obstn 0' MSL 32°01'27"N-88°17'16'W. Delete Dothan Mun pt 31°14'17"N, 85°26'33"W. Delete Henderson RBn °07'02"N, 87°22'28"W. Add DF to Bob Sikes AAS x 30°46'47"N, 86°31'21"W.

MT. SHASTA

52nd Edition, November 12, 1964

Delete LORENZ LUMBER arpt 41°00'N-121°37'W. elete GOOSE VALLEY RANCH arpt 40°56'N-1°41'W.

MT. WHITNEY

54th Edition January 7, 1965

Add VISALIA VOR freq 109.4 ident VIS class TVOR V 16°E 36°22'04"N-119°28'52"W.

•NASHVILLE

54th Edition, January 7, 1965

Add obstn 889' MSL 36°40'06"N-86°40'57"W. Add OSSVILLE MEMORIAL ctl zone 5 mi radius of arpt extsn.

•NEW ORLEANS

57th Edition, April 1, 1965

No hazardous changes.

•NEW YORK

62nd Edition, April 1, 1965

Na hazardous changes.

NORFOLK

56th Edition, March 4, 1965

No hazardous changes.

•OKLAHOMA CITY

56th Edition, November 12, 1964

Add obstn 2740' MSL 35°34'07"N-97°29'20"W. Add ORGER TEX ctl zone 5 mi radius of HUTCHINSON arpt 35°41'55"N, 101°23'40"W. with extsns N & SE. Add obstn 1380' MSL 34°20'57"N, 97°55'37"W. Add obstn 1792' MSL 34 49'33"N, 97°56'54"W. Add obstn 1290' MSL 34 50'49"N, 97 21'30"W. Add obstn 1620' MSL 35 07'55"N, 98 15'45"W. Add obstn 1487' MSL 34 24'24"N, 98 55'31"W. Add obstn 2054' MSL 35 41'07"N, 98 52'45"W. Add obstn 1877' MSL 35 17'00"N 98 42'40"W. Add obstn 2272' MSL 36 05'-19"N, 98 55'18"W. Add obstn 1722' MSL 36 03'33"N, 98 24'42"W.

•ORLANDO

52nd Edition, November 12, 1964

Delete Strickland arpt 28 52'N, 81 57'W. Add obstn 457' MSL 2803'02"N, 81 47'58"W. Delete NAS Sanford ctl twr freq 296. Add obstn 506' MSL 28 22'53"N, 80°-36'30"W. Add obstn 344' MSL 28 20'58"N, 80 47'23"W. Add obstn 522' MSL 28 30'01"N, 80 34'52"W. Add obstn 428' MSL 28 04'26"N, 81 40'52"W. Add obstn 420' MSL 28 33'33"N, 81 32'40"W. Delete St. Petersburg-Clear-WATER INTNL ctl twr freq 317. Delete TAMPA INTNL ctl twr freq 278. Delete SLADE arpt 28 42'N, 81 22'W. Add obstn 849' MSL 29 42'34"N, 82 23'34"W. Add obstn 533' MSL 28 35'09"N, 80 39'06"W. Add obstn 321' MSL 28 20'01"N, 81 24'22"W. Add obstn 949' MSL 28 33'31"N, 81 35'38"W.

•PHOENIX

52nd Edition, January 7, 1965

Delete REX WILLIAMS arpt 33°30'N, 112°15'W. Extend R- 2308 aprxly 5 smls E. Add obstn 1570' MSL 33 23'30"N, 111 59'52"W. Delete AMBROSIA arpt 33 48'N, 113 12'W.

•POCATELLO

49th Edition, April 1, 1965

No hazardous changes.

•PORTLAND

52nd Edition, February 4, 1965

Delete Agua Marina SPB 45 29'N, 122°40'W. Delete Redmond LFR 44°17'35"N, 121°13'30"W & add Redmond RBn freq 368 ident RDM class HSAB.

•PRESCOTT

43rd Edition, April 1, 1965

No hazardous changes.

RAPID CITY

41st Edition, December 10, 1964

No hazardous changes.

•RENO

43rd Edition, January 7, 1965

Add airway V293 direct Ely to Elko (318° M Ely). Add airway V269 350°M bearing from Ely to northern border.

•ROSWELL

52nd Edition, January 7, 1965

Add obstn 4231' MSL 31°54'54"N, 106°23'34"W. Add Walker RBn freq 396 ident LK class MHW 32°21'55"N, 104°26'32"W. Add obstn 3437' MSL 32°19'32"N —103°-

52′31″W. Delete Levell and arpt bcn 33°33′N, 102°22″W. Delete note "RBn to be comm" for Roswell RBn 33°18′N–104°27′W. Change Holloman AFB ctl twr freq 257.0 to 255.9.

SACRAMENTO

53rd Edition, January 7, 1965

Delete BEST arpt 38°46′N, 121°46′W. Delete note "To be comm" for SANTA ROSA VOR 38°31′N, 122°49′W. Delete VARNEY arpt 39°38′N, 122°13′W.

●SALINA

52nd Edition, April 1, 1965

No hazardous change.

SALT LAKE CITY

50th Edition, December 10, 1964

Delete HOWELL arpt 41°46′N, 112°27′W.

●SAN ANTONIO

55th Edition, January 7, 1965

Delete Yoakum arpt 29°19′N −97°14′W. Add obstn 440′ MSL 30°01′55″N, 94°59′37″W. Delete Matagorda Club arpt 28°27′N, 96°18′W. Add obstn 570′ MSL 28°40′30″N, 97°24′40″W.

SAN DIEGO

57th Edition, March 4, 1965

No hazardous changes.

●SAN FRANCISCO

56th Edition, January 7, 1965

Delete airway beacon site #21 code ● — — 36°04′N, 120°59′W. Delete Evergreen RBn 37°18′N −121°49′W. Add restricted area R2531 aprxly 3 mi by 2 mi centered at 37°40′N, 121°32′W. Relocate CZ eff 0600–2400 note from Monterey Peninsula ctl zone to Fort Ord ctl zone. Delete UNICOM Stocton ctl twr 37°54′N, 121°15′W.

●SAVANNAH

57th Edition, March 4, 1965

OWENS FIELD ctl twr decmnsd. Add obstn 510′ MSL 33°26′00″N–81°54′45″W. Add obstn 630′ MSL 33°56′58″ N–80°23′29′W.

SEATTLE

56th Edition, December 10, 1964

Add obstn 526′ MSL 47°05′53″N, 122°35′41″W. Add obstn 421′ MSL 47°12′19″N, 122°16′11″W. Delete Evergreen arpt 47°18′N, 122°19′W. Delete airway beacon site #61B, code ● — — 46°11′N 122°54′W.

●SHREVEPORT

48th Edition, January 7, 1965

Delete MARSHALL VOR 32°27′N, 94°15′W. Delete HARRISON CO arpt beacon 32°31′18″N, 94°18′30″W. Add obstn 932′ MSL 33°08′03″N, 96°07′35″W. Add PARIS TEX ctl zone 5 mi radius of COX FIELD arpt 33°38′17″N, 95°26′54″W with S extsn. Delete Perthshire arpt 33°58′N, 90°55′W. Delete Greenville arpt 33°23′N, 91°00′W. Add obstn 332′ MSL 32°27′58″N, 91°35′48″W. Add obstn 449′ MSL 31°55′16″N, 92°38′24″W. Add obstn 710′ MSL 33°38′08″N–95°33′13″W. Delete Futrell arpt 33°58′N, 93°51′W.

SIOUX CITY

40th Edition, November 12, 1964

Delete Madison arpt 44°01′N, 97°03′W. Add obstn 1902′ MSL 42°05′24″N, 97°01′00″W. Add obstn 2368 MSL 42°02′39″N, 98°02′01″W. Delete SIOUX CITY RBn 42°22′N, 96°21′W. Add obstn 1763′ MSL 43°22′41″ N, 97°08′46″W. Add Norfolk Neb ctl zone 5 mi radius of Karl Stefan arpt 41°59′10″N, 97°26′00″W with extsn NE SE SW & NW. Add Norfolk Neb transition area within a 15 mi radius of Norfolk VOR. Add V219 airway direct Sioux City to Mankato (Sioux City 034°M)

●SPOKANE

50th Edition, December 10, 1964

Delete airway beacon site #11 code ● — — 47°00′20″ N, 119°55′00″W. Delete airway beacon site #16 code — ● — 47°21′50″N, 118°58′45″W.

TRINIDAD

41st Edition, March 4, 1965

No hazardous changes.

●TULSA

54th Edition, October 15, 1964

Delete Sky Haven arpt 36°46′N, 91°53′W. Delete Waynesville Mem arpt 37°49′N, 92°11′W. Add obstn 663′ MSL 36°03′40″N, 90°57′15″W. Add obstn 1350 MSL 37°50′59″N, 94°22′22″W. Delete Golf Ranch arpt 36°38″N 93°11′W. Add obstn 790′ MSL 36°19′49″N, 90° 17′04″W. Add obstn 25°49′ MSL 35°58′08″N, 95°36′55″ W. Add obstn 1465′ MSL 38°02′26″N, 91°30′53″W. Add INDEPENDENCE (Pvt) RBn freq 400 ident IDP class MHW 37°09′36″N, 95°46′30″W. Add PARSONS TEX transition area 6 smi radius of TRI-CITY arpt 37°30′00″ N, 95°30′30″W with 13 mi wide extsn to 12 mis N of arpt. Add Tulsa Okla. ctl zone 3 mi radius of Riverside arpt 36°02′N, 95°59′W obst 1253′ MSL 37°05′34″N 90°50′38″W. Delete Bartlesville RBn 36°46′N, 96°01′W

●TWIN CITIES

49th Edition, November 12, 1964

Add obstn 1531′ MSL 45°01′32″N, 93°02′38″W. Add obstn 1363′ MSL 45°02′46″N, 93°11′47″W. Add obstn 1525′ MSL 44°18′15″N, 91°54′14″W. Add obstn 1385 MSL 43°57′50″N, 90°51′28″W. Add V219 airway direct Sioux City to Mankato (Mankato 217°M). Delete Pierce arpt 45°11′N, 93°22′W.

●WASHINGTON

61st Edition, April 1, 1965

No hazardous changes.

●WICHITA

53rd Edition, January 7, 1965

Delete #4 arpt symbol 37°03′N, 101°05′W. Add LIBERAL KAN ctl zone 5 mi radius of LIBERAL MUN

pt 37°02'30"N, 100°57'30"W with extsns NW N SE SW. Add LIBERAL KAN transition area 15 sml dius of LIBERAL MU'N arpt 37°02'30"N, 100 57'30" '. Add obstn 2801' MSL 36°31'50"N, 100°17'20"W. Add nlsa Okla ctl zone 3 mi radius of Riverside arpt 36 02'- -05°59'W. Add obstn 2272' MSL 36 05'19"N, 98 55'18" '. Add obstn 2446' MSL 36 34'39"N, 99 35'40"W. Add stn 1722' MSL 36°03'33"N, 98 24'42"W. Add obstn 20' MSL 36°33'50"N, 98 43'54"W. Add obstn 2460' SL 36°24'54"N, 99 32'49"W. Add obstn 1500' MSL 50'03"N, 98°29'00"W. Add obstn 14 57' MSL 07'02"N, 97°58'13"W. Add obstn 3596' MSL 36 15'- "N, 101°22'41"W. Add obstn 1654' MSL 36 26'42"N, 53'43"W.

WILLISTON

38th Edition, July 23, 1964

Delete Petes Port arpt 48°01'N, 101°30'W. Add obstn 2125' MSL 49°43'15"N, 104°01'00"W. Add obstn 2630' MSL 49 42'10"N, 106 03'05"W. Add obstn 2735' MSL 49 38'40"N, 105 59'30"W. Add obstn 2930' MSL 49°- 26'45"N, 107 00'45"W. Add obstn 3150' MSL 50°- 00'30"N, 107 45'00"W. Add Moose Jaw term ctl area within a 50 SM radius of Moose Jaw arpt 50°20'N, 105 33'W.

•WINSTON-SALEM

55th Edition, April 1, 1965

No hazardous changes.

YELLOWSTONE PARK

41st Edition, March 4, 1965

No hazardous changes.

RESTRICTIONS TO ENROUTE NAVIGATION AIDS

Radio Facility Restrictions are cited until cancelled by the Associated Station.

ALABAMA

MOBILE, BROOKLEY AFB RDO: VOR unusable below 2000′ MSL beyond 30 nmi due reduced coverage.

ARIZONA

BUCKEYE RDO: VOR unusable below 7000′ MSL beyond 40 nmi 320–345° acct reduced coverage.

COCHISE RDO: VORTAC unusable beyond 40 nmi below 12,500′ MSL 175–240°, 090–145° below 10,500′ MSL 040–090°. Below 14,000′ MSL 360–040°.

PEACH SPRINGS RDO: VORTAC unusable below 10,000′ MSL beyond 40 nmi from 195–230° account reduced coverage.

PHOENIX RDO: VORTAC unusable beyond 10 nmi below 10,000′ MSL 152–165° and 200–210° and beyond 6 nmi below 7000′ MSL 078–125° acct crs roughness.

PRESCOTT RDO: VORTAC unusable beyond 40 nmi below 11,000′ MSL 145–155° and 175–200°; below 17,000′ MSL 200–225°; below 12,000′ MSL 225–235° account crs roughness. VOR excessive crs vagaries within 30 nmi from FL 240 thru 410 rely on To-From indicator for stn passage. Disregard VOR momentary excursion of crs 055° thru 070° 14 to 18 nmi all alts due terrain reflections.

SAN SIMON RDO: VORTAC unusable beyond 40 nmi below 15,000′ MSL 145-190°; below 14,000′ 190–255°; below 10,500′ MSL 350–145° account reduced coverage.

TUCSON RDO: TACAN unusable beyond 6 nmi below 14,500 MSL 240-295° account crs roughness. VORTAC unusable beyond 40 nmi below 15′000 MSL from 320-045°; below 16,500′ MSL 045–065°; below 15,000′ MSL 065–080°.

YUMA RDO: VORTAC unusable beyond 40 nmi below 6000′ MSL 280–300°.

ARKANSAS

FT. SMITH RDO: TACAN portion of VORTAC rad 137–245° unusable below 10,000′ MSL due to roughness and unlocks.

HOT SPRINGS RDO: VOR rads unusable below 3500′, beyond 20 mi due roughness and scalloping.

CALIFORNIA

AVENAL RDO: TACAN unusable beyond 40 nmi below 3000′ MSL 320-065° below 4000′ MSL, 065°–095° below 4500′ MSL, 095-125° below 8500′ MSL, 125–170° below 7500′ MSL, 170–198° below 7000′ MSL, 195–230° below 8000′ MSL, 230–305° below 8000′ MSL.

BLYTHE RDO: VORTAC unusable beyond 40 nmi below 8000′ MSL 324–018° below 9000′ MSL 189–217°, below 10,000′ MSL 175–189°, below 15,000′ MSL 277–324°.

FILLMORE RDO: VORTAC unusable beyond 40 nmi 13,000′ and below 280–290° and 14,000′ and below 290–350°

FORT JONES RDO: LFR E crs unreliable accou multiples.

FRESNO RDO: TACAN portion of VORTAC unusab below 4000′ MSL 200–250°.

GOFFS RDO: VOR unusable beyond 40 nmi belo 11,000′ MSL 265–290° and 15,000′ MSL 290–310° ac reduced coverage.

GORMAN RDO: VORTAC unusable beyond 40 nmi b low 15,000 MSL 265–310° below 10,500′ MSL 35 040°; below 5500′ MSL 125–155°; below 10,500′ MS 155–170° below 14,000 MSL 170–219°; below 31,00 MSL 219–250°; below 25,000′ MSL 250–265° acct re duced coverage.

LONG BEACH RDO: TACAN portion VORTAC unus able for apchs to Los Alamitos NAS acct crs roughes

LOS ANGELES ARTCC: En route radar service ava 100 nmi radius Las Vegas VORTAC except unavailab V8N from 25 miles S Mormon Mesa VORTAC to Mor mon Mesa VORTAC V21 from 20 miles S Mormo Mesa VORTAC to Los Angeles/Salt Lake City bou dary. V8 from 15 miles S Mormon Mesa VORTAC Los Angeles/Salt Lake City boundary. V21E fro Mormon Mesa VORTAC to Los Angeles/Salt Lak City boundary. V503 from Craters Intersection t Los Angeles/Salt Lake City boundary. V105/V1 from 25 miles W Las Vegas VORTAC to Los Angeles Salt Lake City boundary. J9/J107, FL 180-230 in clusive from 30 miles north Boulder VOR to Lo Ange'es/Salt Lake City boundary. J60, FL 180–23 incl, from 55 miles N Boulder VOR to Los Angeles Salt Lake City boundary. J11 FL 180–230 incl. fro 50 miles S Bryce Canyon VORTAC to Los Angeles Salt Lake City boundary. J92 FL 180– 230 incl. fro 35 miles W Boulder VOR to Los Angeles/ Salt Lak City boundary.

LOS ANGELES RDO: VORTAC unusable beyond 4 nmi below 6000′ MSL from 135–180°, below 7000′ MSL from 268–290°. V–201 011° rad beyond 20 nmi belo 9000′ MSL. DME portion unusable beyond 40 nm below 3500′ MSL from 180–210° acct reduced cover age.

NAPA RDO: TACAN unusable beyond 40 nmi belo 7500′ from 280–045°.

NEEDLES RDO: VORTAC unusable below 11,500′ MS beyond 40 nmi from 170 to 220° account reduced cov erage.

OAKLAND RDO: H facil unusable beyond 25 nmi 09 124°. TACAN unusable beyond 20 nmi below 37 MSL 045–330°; below 4500′ MSL 330–045°; beyon 40 nmi below 5000′ MSL 060–320°, below 6000′ 32

340°, below 7000' MSL 340–355°, below 8000' MSL 355-005°, below 9000' MSL 005-050°.

ONTARIO RDO: VOR unusable below 14,500' MSL beyond 40 nmi from 200 to 140° account reduced coverage.

PALMDALE RDO: VOR unusable beyond 40 nmi below 14,000' MSL 110–180°. TACAN unusable below 14,000' MSL beyond 40 nmi from 110–170° below 13,000' MSL beyond 40 nmi from 170–220° below 11,000' MSL beyond 40 nmi from 220–235°.

PALM SPRINGS RDO: VOR unusable beyond 40 nmi below 17,000' MSL 177–200° and 277-054°, below 16,000' MSL 054–062° below 15,000' MSL 158-177°, below 11,500' MSL 140-158°, below 11,000' MSL 259-277°, below 8000' MSL 062-140°, beyond 20 nmi below 13,000' MSL 200–259° acct reduced coverage.

PARKER RDO: VORTAC unusable beyond 40 nmi below 24,000' MSL 100–135°; below 14,500' MSL 135-150° acct reduced coverage.

POINT REYES RDO: VOR unusable beyond 40 nmi below 5000' and 50 nmi below 6000' btn 140 220°.

POMONA RDO: VOR unusable beyond 37 nmi on the 073° rad and beyond 40 nmi below 14,500' MSL 270–330° below 18,000' MSL 330-360° below 22,000' MSL 000-035° below 14,500' MSL 035–045° below 8000' MSL 070–140° below 7000' MSL 140–270° acct reduced coverage.

PORTERVILLE RDO: VOR unusable beyond 40 nmi below 4000' MSL from 065 to 180° account reduced coverage.

POTATO BLUFF RDO: VOR unusable below 3500' MSL 350–360° acct crs scalloping.

RIVERSIDE RDO: VOR unusable beyond 15 nmi below 4,500' MSL 060–100°; beyond 30 nmi below 9000' MSL 100–235°, below 6500' MSL 235-290°, below 3,500' MSL 290-330°, below 10,500' MSL 330-035° below 13,500' MSL 035-060°. VOR will be shutdown for mod.

RIVERSIDE, MARCH AFB RDO: USAF VOR unusable beyond 40 nmi below 14,000' from 015-035° and below 16,000' from 060–080°. Vail Lake VOR ident VLK limited to 30 nmi radius above 8500' from 200-320° above 12,000' from 070 to 320° above 13,000' from 320–070°

SALINAS RDO: VORTAC unusable beyond 20 nmi 010 thru 080° at MOD'A and beyond 30 nmi 150 thru 210° at MOD'A.

SAN DIEGO RDO: VOR unusable from 306-330° clockwise below 3800' MSL beyond 15 nmi acct crs roughness. TACAN unusable from 300-335° clockwise below 3800' MSL beyond 15 nmi acct roughness, unusable beyond 40 nmi below 5500' MSL 300-320° acct roughness.

SAN FRANCISCO RDO: H facility unusable beyond 15 mi from 130°–160° clockwise.

SAN FRANCISCO GAP RDO: FM unusable below 2000' MSL.

SAN JOSE RDO: VOR unusable beyond 20 nmi below 4000' MSL 360-040°; below 9000' MSL 040–070°; below 8000' MSL 070–110°; below 4000' MSL 110–130°; below 6000' MSL 130–280°; below 5000' MSL 280–360°.

SANTA ANA, EL TORO MCAS RDO: VOR (freq 111.0 mc) coverage restricted at and below 10,000' beyond 25 nmi from 360° clockwise to 070°.

SANTA MONICA RDO: VOR unusable beyond 40 nmi below 11,000' MSL 050-265°. Not certified within Warning Area 289.

SAUSALITO RDO: VORTAC unusable 300 313° beyond 10 mi below 12,000'.

THERMAL RDO: VORTAC azimuths unusable beyond 40 nmi 015 040°, 13,000' MSL; 030 040°, 12,000' MSL 030-085°, 8000' MSL; 150 200°, 15,000' MSL; 200–250°, 23,000' MSL; 350 015, 12,000' MSL.

TWENTY NINE PALMS RDO: VORTAC azimuth unusable 010 035°; 13,000'; 100 120°, 11,500'; 120 240° 10,500' beyond 40 nmi.

VAIL LAKE RDO: VOR unusable beyond 30 nmi below 8500' from 200-320° below 12,000' from 320-070° below 13,000' from 200-070°.

WOODSIDE RDO: VORTAC unusable below 5000' MSL beyond 30 nmi 190°–260° and beyond 20 nmi 260–305°, unusable beyond 10 nmi below 4000' 300–050°.

COLORADO

ALAMOSA RDO: VORTAC unusable beyond 40 nmi below 18,000' MSL from 025–045° and below 13,500' MSL 150-165° acct reduced coverage.

COLORADO SPRINGS RDO: VOR unusable below 11,000' MSL, 320 020°; 10,000' MSL, 020 072°; 9000' MSL, 072 140°; 12,000' MSL, 190 220°; 16,500' MSL, 220-280°; 12,500' MSL, 280-320°, beyond 30 nmi acct reception VORTAC (COS) unusable beyond 40 nmi below 15,200' MSL, 300 340°; below 14,300' MSL, 340-005°; below 13,200' MSL, 005–020°; below 12,100' MSL, 020 030 acct reception.

HANOVER RDO: H facil bearings unreliable beyond 25 nmi in shadow area of Pikes Peak

CONNECTICUT

BRIDGEPORT RDO: VOR unusable beyond 10 nmi from 265° clockwise to 280°; beyond 6 nmi 280-305° beyond 20 nmi 315-340° at MOD'A. VOR unusable beyond 18 nmi below 7000' MSL 200–215°.

GROTON RDO: H facil unusable beyond 15 nmi.

NEW HAVEN RDO: VOR unusable beyond 20 nmi at MOD'A.

WINDSOR LOCKS RDO: TACAN unusable below 3500' MSL beyond 35 nmi 090° to 290° due both azimuth and distance unlocks.

DISTRICT OF COLUMBIA

WASHINGTON RDO: DOD'A VOR unusable beyond 30 nmi 010-045°; beyond 10 nmi 045-055°; beyond 15 nmi 055-070°; beyond 20 nmi 070–180°; beyond 32 nmi 180–210°; beyond 30 nmi 210–260°; beyond 20 nmi 260–300° beyond 35 nmi 300–340° account roughness and scalloping. Change over point established 16 nmi from Baltimore VOR on V–157.

FLORIDA

KEY WEST RDO: VOR unusable below 14,500 from 005–340° beyond 15 nmi.

GEORGIA

AUGUSTA RDO: VOR unusable 357–002° acct roughness. V185 tmprly authorized 180° rad Greenwood to Augusta VOR. MEA 2300' MSL due restriction.

COLUMBUS RDO: Lawson RBN ident: AWS unreliable beyond 25 nmi.

COLUMBUS, LAWSON AAF RDO: VOR unusable beyond 17 nmi.

FULTON RDO: VOR unusable all radials except 220–280° acct roughness.
MACON RDO: FSS freqs 122.2, 126.7, 255.4 unusable below 2500′ in SE quad beyond 35 mi.
ROME RDO: VOR rads 124–134° unusable account roughness.
WAYCROSS RDO: VORTAC unusable below 3000′ MSL beyond 30 nmi.

IDAHO

BOISE RDO: VORTAC unusable beyond 40 nmi below 14,000′ MSL 360–050° account reduced coverage.
BURLEY RDO: VORTAC unusable beyond 40 nmi below 14,000′ MSL from 130–140° and below 12,000′ MSL from 140–150° acct reduced coverage.
LEWISTON RDO: VOR coverage 080° clockwise to 170° limited 30 mi at MEA.
MULLAN PASS RDO: H facil momentary ADF disturbance may be experienced within 15 nmi stn 230–280°. VORTAC 40 nmi coverage at MOCA except unusable beyond 40 nmi below 11,000′ MSL from 310–010° and from 200–230° and below 12,000′ MSL from 290–310°.
POCATELLO RDO: VOR unusable beyond 40 nmi below 11,000′ MSL from 060–085° and below 13,000′ MSL from 085–120° acct reduced coverage.
TWIN FALLS RDO: VOR unusable beyond 40 nmi below 12,000′ MSL 115–150° acct reduced coverage.

ILLINOIS

CHAMPAIGN RDO: TACAN radials 231–239° unusable below 14,000′.
CHICAGO O'HARE RDO: VOR unusable 060–072°, 160–190°, 290–305°, 340–360°. DME unusable 004–014°, 135–156°, 285–315°, 340–350°.
CHICAGO HEIGHTS RDO: VOR portion unusable beyond 20 nmi below 8000′ MSL 330–350°.
JOLIET RDO: VOR unusable 040-070° below 3000′ MSL beyond 35 nmi.
PEOTONE RDO: VOR 341–010° rads unusable beyond 33 mi below 3000′ MSL

INDIANA

BLOOMINGTON RDO: VOR unusable 025–045° beyond 30 nmi below 4000′ MSL; 045–065° beyond 35 nmi all altitudes up to aid including 14,500′ MSL acct interference.
KNOX RDO: VOR coverage restricted to 37 nmi at MEA. Possible interference btn Mansfield, Ohio and Knox VOR above 10,000′ MSL beyond 45 nmi E of Knox VOR.

IOWA

NEOLA RDO: Voice comms with Omaha, Nebr FSS unusable below 4500′ on V–172 and V–172N btn 20 and 46 nmi E VORTAC, excp rcvr 122.1 and tsmts 117.1 mc.
SIOUX CITY RDO: TACAN radials 270–300° unusable below 8000′ MSL between 17–40 mi and 060–080° below 9000′ MSL between 20–46 mi acct crs roughness.
WATERLOO RDO: TACAN portion of VORTAC unusable beyond 15 nmi at all alts 355–005° account unreliable crs and distance indications. Not to be used for apchs to rnwy 18 acct roughness.

LOUISIANA

LEESVILLE, POLK AAF: RBn unusable beyond 15 nmi during hrs of darkness.
SHREVEPORT-DOWNTOWN RDO: VOR unusable 070 100° and 180–280° acct roughness and scalloping.

MAINE

MILLINOCKET RDO: VORTAC unusable beyond 35 nm 330–340° at MOCA.

MARYLAND

FREDERICK RDO: VOR unusable below 2000′ beyond 25 nmi from 055–190°.
PATUXENT RDO: VOR unusable below 1500′ MSL beyond 35 nmi from 245–300° acct reduced coverage.
SNOW HILL RDO: VOR unusable below 1500′ beyond 12 nmi 315–005°/ below 1500′ beyond 25 nmi 005–050 and below 1300′ beyond 20 nmi 210–225° acct roughness. Changeover point on V–139 btn Snow Hill and Cape Charles 20 mi SW Snow Hill.

MASSACHUSETTS

BEDFORD RDO: VOR unusable beyond 10 nmi from 270–225° excluding published approach and transition and beyond 7 nmi from 225–270°.
BOSTON RDO: VOR unusable beyond 26 nmi all azimuths at MOCA.
SHUTESBURY RDO: VOR ident SHT freq 109.2 for use only with published procedures. Not for use as enroute navaid.
WESTFIELD RDO: VOR unusable beyond 35 nmi from 270° clockwise to 320° at MOCA.

MICHIGAN

BATTLE CREEK RDO: TACAN rads 275 thru 290 unusable 13,500′ MSL and below beyond 15 nmi due crs roughness.
CARLETON RDO: TACAN portion of VORTAC unusable beyond 12 nmi below 4500′ MSL 335–345° acct roughness.
FLINT RDO: VORTAC unusable 300–320° beyond nmi below 10,000′ account roughness and unkn
GAYLORD RDO: State owned and operd VOR oper 24 hrs daily, VFR use only. Class: L–BVOR Freq 109.2 mc. Ident: GLR. Lctd lat 45°00′48″, long 84°41′30″, Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1).
MARQUETTE RDO: VOR unusable 200–335° below 2900′ beyond 25 mi; 335–350° below 2900′ beyond 30 mi; 200–350° below 4400′ beyond 40 nmi.
MT. PLEASANT RDO: Non-Federal VOR operg 24 hr daily VFR use only. Class: L–BVOR Freq: 109.8 mc Ident: MOP. Lctd lat 43°37′, long 84°44′. Monitoring category (1) Rcvg 122.1 and 126.7 mc.
WHITE CLOUD RDO: VOR unusable below 2000′ from 360–090° clockwise beyond 35 mi.

MINNESOTA

INTERNATIONAL FALLS RDO: H facility shutdown UFN.
WINONA RDO: VOR unusable as enroute IFR aid

MISSOURI

KANSAS CITY RDO: Riverside VOR unusable beyond 15 mi below 2400′ MSL; beyond 30 mi below 4000′ 125–170°, 252–260° and 300–310° unusable all distances and alts.
MARYLAND HEIGHTS RDO: VOR coverage restricted to 35 nmi from 150° clockwise to 219° at MEA.

MONTANA

ZEMAN RDO: VOR unusable beyond 15 nmi below 1,000' MSL from 010–090° due reduced coverage.

TTE RDO: VOR unusable beyond 15 nmi below 0,000' MSL from 005–120°, beyond 15 nmi below 1,000' MSL from 120–325°.

LLON RDO: VORTAC unusable beyond 40 nmi below 1,000' MSL from 340-350° below 9000' MSL 010-20°; below 12,000' MSL 020-040°; below 14,000' MSL 40-080°; below 12,000' MSL 080-090°; below 14,000' SL 090-130° below 18,000' MSL 130-145° account educed coverage.

MMOND RDO: VOR unusable beyond 40 nmi below 1,000' MSL from 055-070°, below 14,000' MSL from 0–125°, below 17,000' MSL from 125-150°, below 3,000' MSL from 150-210°, below 14,000' MSL from 0-270°, below 12,000' MSL from 270-055° acct educed coverage. Possible momentary flag activity n V-2 nine miles E of Drummond VOR. Verify station passage by to/from indication.

ASGOW AFB RDO: USAF VOR unusable for civil se below 6800' MSL beyond 10 nmi 235-245° account rs roughness.

LENA RDO: VOR unusable beyond 40 nmi below ,000' MSL 360–065°; 11,000' 065-090°; 16,000' 110-0°; 18,000' 120-180°; 17,000' 180–205°; 14,000' 205-0°; 12,000 220-240; 11,000' 240-305°; 10,000' 305-0° account reduced coverage.

SSOULA RDO: VORTAC unusable beyond 15 nmi 5–090°; below 12,000' beyond 31 nmi 090–095°; below 10,000' beyond 20 nmi 095–165°; below 12,000' eyond 20 nmi 165–270°; below 12,000' beyond 20 nmi 5–315°; not usable 315–345° beyond 34 miles, TACAN elow 14,000', VOR below 11,000' acct reduced coverge. Possible momentary VOR flag activity on V2 9 i E of MSO VORTAC. Verify station passage by from indication.

ITEHALL RDO: VORTAC unusable below 14,700' SL beyond 30 nmi from 360–040°; below 12,000' MSL eyond 30 nmi from 041–055°; below 14,500' MSL beond 30 nmi 120–160°; below 14,500' MSL beyond 0 nmi from 215–230°; below 14,500' MSL beyond 35 mi from 231–285°, below 13,500' MSL beyond 30 nmi om 286–359° acct crs roughness. TACAN unusable r apchs due roughness.

NEBRASKA

AND ISLAND RDO: TACAN unusable beyond 20 mi below 7000' 360-025°; from 0 to 10 nmi below 2,000' 055–085°; from 0 to 20 nmi below 12,000' 255-5°.

AHA RDO: Voice comms with Omaha, Nebr. FSS nusable below 3600' on V-6-8S btn 36 and 55 nmi E f VORTAC, excep tsmtg 116.3 mc.

NEVADA

TTLE MOUNTAIN RDO: VOR unusable at MOCA eyond 35 nmi 055–060°; 15 nmi 115–165°; 15 nmi 255–5° acct reduced coverage.

ATTY RDO: VOR restricted below 8000' beyond 27 mi, 060–360°; below 10,000' beyond 10 nmi, 360-060°.

LDER RDO: VOR restrictions 300 to 310° below 00' MSL beyond 15 nmi due to scalloping.

ALDALE RDO: VOR portion of VORTAC unusable eyond 25 nmi below 11,000' MSL 060–075°; beyond 15 mi below 10,000' MSL 155–180°; beyond 25 nmi below 11,200' MSL 300–015° acct reduced coverage. DME unusable beyond 15 nmi below 14,000' MSL 065-075°; below 17,000' MSL 150-235°; below 16,000' MSL 320-330° account reduced coverage.

CURRANT RDO: VOR unusable beyond 15 nmi at MOCA 005-025°; 25 nmi 060-155°; 35 nmi 245-260°; 30 nmi 260-290°; nmi 290-310° acct reduced coverage.

ELY RDO: VOR operg with following restrictions except on established airways and routes: unusable beyond 20 nmi below 11,500' MSL from 120-170° and 240-320°; below 14,000' MSL 170-220° and 320-340°; below 15,000' MSL from 220-240°; below 12,000' MSL from 340-010°; beyond 10 nmi below 13,000' MSL from 010-120°.

HAZEN RDO: VOR unusable 300-320° beyond 30 nmi below 9500'.

LAS VEGAS RDO: VORTAC unusable beyond 40 nmi below 9500' MSL from 190° to 220° below 12,500' MSL from 200° to 255°, below 14,500' MSL from 255° to 270°, below 16,000' MSL from 270-290° acct of reduced coverage.

MINA RDO: VOR unusable below 11,000' due roughness.

MORMON MESA RDO: VORTAC unusable beyond 40 nmi below alts 12,000' MSL from 055 to 100°; 14,000' MSL from 100 to 110°; 17,000' MSL from 110 to 135°; 16,000' MSL from 285 to 340° account reduced coverage.

RENO RDO: H facility unusable 170°–270° beyond 20 nmi, 270–300° beyond 30 nmi and 300–010° beyond 23 nmi. VOR unusable 200-230° beyond 30 nmi below 13,000'. TACAN unusable below 14,500' beyond 30 nmi btn 210-230°.

SOD HOUSE RDO: VOR unusable below 13,500 ft MSL beyond 40 nmi from 020–075° and 220-235°.

SPARKS RDO: H facility unusable btn 175-185° beyond 18 nmi.

TONOPAH RDO: VOR unusable below 13,000' MSL beyond 40 nmi 005–030° acct reduced coverage.

WELLS RDO: VOR unusable beyond 40 nmi 18,000' MSL 005-030°; below 22,500, 185–210°; below 15,000, 335–350°; and below 12,000', 350–005° account reduced coverage.

NEW HAMPSHIRE

KEENE RDO: VOR unusable 070–085° beyond 20 nmi at MOCA.

LEBANON RDO: VOR unusable below 6000' MSL beyond 35 nmi, 110–115°.

NEW JERSEY

ATLANTIC CITY RDO: VOR unusable beyond 35 mi from stn to MOCA. TACAN has momentary cross pointer excursions within 10 nmi at MOCA, which may be encountered at higher alts and greater ranges. TACAN apch rnwys 13 and 31 for mil jet acft approved; otherwise unsuitable for instrument apch procedure.

ROBBINSVILLE RDO: VOR unusable beyond 30 nmi from 020° clockwise to 065° at MOCA due interference undisclosed source.

NEW MEXICO

CIMARRON RDO: VOR coverage restricted to awys 40 nmi at MEA excp V-19, N of CIM 35 nmi.

COLUMBUS RDO: VOR 078° rad restricted to 20,000' MSL for 40 nmi.

GRANTS RDO: TACAN unusable beyond 20 nmi 175–210°, 315–360° and 011–035° at MOCA acct loss of signal, the portion 001–010° unusable acct loss of signal. VOR portion unusable beyond 30 nmi 310–360°, 20 nmi 360–025°, 30 nmi 150–175°, 20 nmi 175–210°, 35 nmi 240–265° at MOCA.

ROSWELL RDO: TACAN unusable beyond 20 nmi below 7000′ MSL 060–140°; below 8000′ MSL 141–215° acct crs roughness.

SANTA FE RDO: VORTAC restricted to 30 nmi at MOCA from 015–030°. TACAN rads 215° and 245° unusable acct roughness.

NEW YORK

BINGHAMTON RDO: Erratic AIDF action 4–13 nmi SSE of facil at min inst alt.

DEER PARK RDO: VOR unusable below 1500′ MSL beyond 35 nmi from 070–180° below 1500′ MSL beyond 30 nmi from 180–240° below 2000′ MSL beyond 20 nmi from 240–350° below 2000′ MSL beyond 30 nmi from 350–040° due reduced coverage. TACAN unusable below 1500′ beyond 15 nmi from 088–098° due roughness.

DUNKIRK RDO: VOR unusable below 4000′ MSL beyond 22 nmi from 120–180° acct reduced coverage.

GENESEO RDO: VORTAC unusable below 3500′ MSL beyond 35 nmi 115–140°; below 3500′ beyond 30 nmi 140–160°; below 3500′ beyond 35 nmi 160–180°; 3500′ beyond 30 nmi 190–210°; 3500′ beyond 35 nmi 210–215° due reduced coverage.

GLENS FALLS RDO: DME unusable beyond 35 nmi 305–315°, beyond 30 nmi 315–320°, beyond 25 nmi 320–325°, beyond 30 nmi 325–350° at MOCA.

HAMPTON RDO: DME unusable below 1500′ MSL beyond 35 nmi 280–325°; below 2000′ MSL beyond 30 nmi 325–355° account reduced coverage.

HUGUENOT RDO: VOR unusable below 6500′ beyond 20 nmi 210–230° due reduced coverage.

ITHACA RDO: VOR unusable beyond 25 nmi 360– 150°.

KINGSTON RDO: VOR unusable beyond 35 nmi 045–050° and 30 nmi 070–140° at MOCA.

NEW YORK, KENNEDY RDO: VOR unusable below 1500′ beyond 30 nmi 015–303°; below 1500′ beyond 26 nmi 030–045°; below 2000′ beyond 24 nmi 045–060°; below 1500′ beyond 24 nmi 060–075°; below 1500′ beyond 30 nmi 075–100°; below 1500′ beyond 28 nmi 100–150°; below 1500′ beyond 26 nmi 150–165°; below 1500′ beyond 30 nmi 165–215°; below 1500′ beyond 26 nmi 215–270°; below 2000′ beyond 26 nmi 270–340°; below 2000′ beyond 30 nmi 340–350°; below 1500′ beyond 35 nmi 350–015°. MRA Northport Int 2500′ MSL acct crs roughness.

NEW YORK RDO: La Guardia VOR (freq 113.1 mc) unusable clockwise beyond 20 mi 015–025°; 35 nmi 025–045°; 30 nmi 065–075°; 25 nmi 075–135°; 35 nmi 135–145°; 15 nmi 165–205°; 35 nmi 205–215°; 30 nmi 215–220°; 25 nmi 220–230°; 30 nmi 230–240°; 20 nmi 240–250°; 10 nmi 250–260°; 20 nmi 260–270°; 25 nmi 270–285°; 30 nmi 285–295°; 35 nmi 295–305°; 35 nmi 315–325°; 25 nmi 325–005° at MOCA.

PLATTSBURGH RDO: VORTAC unusable below 6000′ MSL beyond 35 nmi 260–270°.

ROCHESTER RDO: VOR unusable beyond 12 nmi btn 045 to 065° at MOCA.

NORTH CAROLINA

CHARLOTTE RDO: VOR unusable 360–055° acct rough ness.

ELIZABETH CITY RDO: VOR unusable 026–042° an 085–100°, unusable 276–312° below 5000′. V–4 tmpry authorized 130° rad FKN ECG VOR ME 2500′ MSL due restrictions.

GOLDSBORO, SEYMOUR JOHNSON AFB RDO: VO rads 290° thru 320° and 100 thru 190° unusable du roughness, scalloping and bends.

NORTH DAKOTA

DICKINSON RDO: VOR unusable btn FL 170 and 3 beyond 40 nmi 090–120° acct crs roughness. GI Center radar service avbl.

OHIO

AKRON RDO: VOR portion VORTAC unusable 0 080° acct crs roughness. From V–72 utilize publish YNG VOR rad from Akron to YNG. SW–bnd det mine stn passage at Akron by To-From indicat MEA 2500′ MSL.

BRIGGS RDO: VOR unusable 330–010° and 120–14 unusable above 10,000′ MSL 305–325° acct roughne For V–8, V–75, V–92, utilize published Wheeling VO 310° radial BSV to Wheeling VOR 3100′ MEA.

MANSFIELD RDO: VOR unusable above 8000′ MS beyond 20 nmi from stn 140–220° and above 14,0 MSL 220–140° due co-channel interference 108.6 f from Rainelle, W.Va. VOR.

MONTGOMERY CO RDO: VOR unusable beyond nmi 070° clockwise to 085°, 135–155°; 225–250° 29 295° at MOCA. All other azimuths unusable.

STRONGVILLE RDO: VOR unusable beyond 35 n from 090–200° at MOCA.

OREGON

NEWPORT RDO: VORTAC coverage 40 nmi at MO excp unusable beyond 40 nmi below 8000′ MSL 35 150°; 6000′ MSL 150–170°; 6000′ MSL 320–350° ac reduced coverage.

NORTH BEND RDO: VOR unusable beyond 40 nmi b low 6000′ MSL from 340–065° and below 6500′ MS 065–190°.

PORTLAND RDO: VORTAC 332° rad and the DME the same 332° rad not usable beyond 40 nmi at 6,00

REDMOND RDO: VORTAC unusable below 11,0 MSL 190–210′; below 13,000′ MSL 210–240°.

ROSEBURG RDO: VOR coverage 40 nmi at MO excp 11,500′ MSL 070–085°; above 12,500′ MSL 1 125° beyond 35 nmi; 320° rad unusable beyond 35 n 12,500′ MSL 085–125°; 10,500′ MSL 125–130°; 0 MSL 215–285°. Unusable below 7000′ MSL.

PENNSYLVANIA

ALLENTOWN RDO: VOR unusable below 3500′ MS beyond 26 nmi from 020 to 060° account crs roughne

ALTOONA RDO: VOR unusable below 3500′ MSL b yond 18 nmi 070–100° below 3500′ MSL beyond 3 nmi 100–160° below 4500′ MSL beyond 30 nmi 3 310° all altitudes beyond 15 nmi 310–350° below 40 MSL beyond 30 nmi 350–010° due reduced coverag

BRADFORD RDO: H fac unusable beyond 15 nmi to 180° acct excessive needle oscillation.

CARROLLTOWN RDO: VOR unusable beyond 10 nm 070–085° at MOCA.

ARION RDO: VOR unusable 215–223° due roughness.
ARRISBURG RDO: VOR unusable beyond 26 nmi from 105–140°; beyond 30 nmi 140–165° beyond 35 nmi 195–230° at MOCA. TACAN azimuth unusable beyond 35 nmi 195–230° 15 nmi 230–265° and 330–345° at MOCA. TACAN distance unusable beyond 30 nmi 325–360° beyond 35 nmi 360° beyond 35 nmi 360–025° at MOCA.
AZLETON RDO: Non-Federal H facil hrs of opern limited to 0700–1930 LFN.
GHESVILLE RDO: H facil has erratic ADF action 3–4 nmi from stn in E quad at min instr alt.
PERIAL RDO: VOR unusable from 150 to 170° below 3000' and from 345 to 360° below 11,500' MSL account crs roughness. For V40 41 btn IRL and AIR' FORTAC' below 8000' MSL utilize AGC' 330° rad.
NCASTER RDO: VOR unusable below 5000' MSL beyond 15 nmi, below 6000' MSL beyond 25 nmi from 320 340° acct crs scalloping.
TROBE RDO: VOR unusable all alts all azimuths beyond 20 nmi due crs vagaries.
ITSBURGH, ALLEGHENY RDO: H facil brgs unreliable SW quad beyond 20 mi all alts due to excessive needle oscillations.
LINSGROVE RDO: VOR unusable 26 nmi from 105° clockwise to 115°; 35 nmi 210–230°, 26 nmi 250–285° at MOCA. TACAN unusable beyond 30 nmi 100–135° beyond 35 nmi 115–170° beyond 35 nmi 115–170° beyond 5 nmi 190–300° at MOCA. Unusable intermediate wy 110° rad to int ABE rad 198°.
ORNHURST RDO: VORTAC' unusable beyond 15 mi below 6000' MSL 300–330°.
RDLEY RDO: VOR unusable below 1700' MSL beyond 17 nmi 250–265°; beyond 10 nmi 265–280°; beyond 17 nmi 280–290° account crs roughness. TACAN unusable below 2400' MSL beyond 15 nmi, below 5000' MSL beyond 30 nmi 225–275° acct roughness and DME block.

RHODE ISLAND

OVIDENCE RDO: VOR unusable beyond 30 nmi below 3000' acct reduced coverage from 220–310°.

SOUTH CAROLINA

LENDALE RDO: VOR unusable below 4500' MSL beyond 20 nmi on 171° rad acct crs scalloping.
RENCE RDO: VOR rad 005° unusable beyond 20 mi acct bends. TACAN unusable 340–030° beyond 0 nmi acct roughness.
RTLE BEACH RDO: VOR rads 220–245° unusable below 2500' MSL beyond 15 nmi.

SOUTH DAKOTA

CHELL RDO: VOR restricted to VFR use only FN.
BRIDGE RDO: State owned and operd VOR operg 700–1900. VFR use only. Class: L-VOR. Freq: 08.6, receivers 122.1. Ident MBG. Lctd lat 45°33'-7", long. 100°21'56".
PID CITY RDO: VOR unusable 305–315°.
TERTOWN RDO: TACAN unusable below 4000' 000' MSL 218–238°, 065–105° between 19–25 mi acct rs roughness.

TENNESSEE

AHAM RDO: VOR 235° rad (V16S) unusable 0 to 3 nmi roughness and bends.
HOLSTTON MOUNTAIN RDO: VOR 315-015° rads unusable beyond 18 nmi below 14,500' MSL.

TEXAS

AMARILLO RDO: TACAN unusable beyond 15 nmi below 7,000' MSL 110 235° acct roughness.
AUSTIN RDO: VOR unusable beyond 35 nmi below 3500' MSL 290 320°.
EL PASO RDO: TACAN unusable beyond 30 nmi at MOCA from 265 clockwise thru 300°.
FORT WORTH, GREATER SOUTHWEST RDO: TACAN unusable beyond 30 nmi below 3000' MSL due loss of signal.
HOUSTON RDO: TACAN unusable beyond 35 nmi below 2500' MSL 085-210°.
GALVESTON RDO: TACAN unusable beyond 20 nmi below 3000' MSL 040 075 °acct crs roughness.
LUBBOCK RDO: VOR unusable on 004° rad from 23 to 25 nmi acct freq interference.
to 25 nmi acct freq interference. TACAN unusable 140 190° below 8000' MSL beyond 15 nmi.
PALACIOS RDO: TACAN unusable 265-330° acct roughness.
PLAINVIEW RDO: VOR unusable below 5500' MSL 22 to 25 nmi 183 185° due to interference.
WINK RDO: TACAN unusable beyond 17 nmi below 7000' MSL 030-080°.

UTAH

CEDAR CITY RDO: VOR unusable below 18,000' MSL beyond 30 nmi 090-125° and beyond 35 nmi 125–150° acct reduced coverage.
DELTA RDO: VOR unusable beyond 40 nmi below 16,000' MSL 040 080° acct reduced coverage.
HANKSVILLE RDO: VORTAC' coverage restricted from 160 thru S to 190° 26nmi at 14,000' MSL.
LUCIN RDO: VOR unusable beyond 40 nmi below 15,000' MSL 180 220°; below 12,000' MSL 280-310°; below 11,000' MSL 310-330° account reduced coverage.
MILFORD: Jet Route 107 from Milford, Utah VOR to Rock Springs, Wyo. VOR continuous navigation signal coverage does not exist over the entire route segment below 28,000'. VOR moderate to hvy roughness over mountain ridges on 072 rad 10 mi out. TACAN momentary crs excursion and roughness in excess of 3° exists on TACAN rads.
OGDEN RDO: VORTAC' unusable beyond 40 nmi below 21,000' MSL 300-055°; below 16,500' MSL 055 thru 075°; below 22,000' MSL 075 thru 130° account reduced coverage.
PROVO RDO: VORTAC' unusable beyond 40 nmi below 15,000' MSL 010 035°; below 16,000' MSL 035–050°; below 15,000 MSL 275–285°; below 14,000' MSL 285–295° acct reduced coverage. VOR roughness exists over mountain ridges N thru E btn 15 and 20 nmi.
SALT LAKE CITY RDO: VORTAC' unusable beyond 40 nmi below 19,000' MSL 010-020°; below 20,000' MSL 020-030°; below 23,000' MSL 030–060°; below 24,000' MSL 060–080°; below 19,000' MSL 080-095°; below 17,000' MSL 095–125°; below 16,000' MSL 125–140°; below 16,000' MSL 195-210°; below 10,000' MSL 280-290°; below 16,000' MSL 350-010° acct reduced coverage.

VERMONT

BURLINGTON RDO: VOR unusable beyond 35 nmi from 080° clockwise to 105°; 25 nmi 115–135°; 30 nmi 135–155° at MOCA.

MONTPELIER RDO: VOR unusable beyond 30 nmi 205–220°; beyond 25 nmi 220–235°; beyond 30 nmi 234–280° at MOCA.

VIRGINIA

BROOKE RDO: TACAN distance unusable beyond 30 nmi 230° clockwise to 270° MOCA.

HERNDON RDO: VOR portion of VORTAC unusable below 2500′ MSL. Beyond 30 nmi from 050–075°; beyond 20 nmi from 075–095°; beyond 35 nmi from 105°–120°; beyond 20 nmi from 165°–215° acct of crs roughness. V39 E 209° usable 5000′ and above beyond 20 nmi.

LAWRENCEVILLE RDO: VOR unusable below 1800′ MSL beyond 8 nmi 215–250°; 14,500′ MSL to 18,000′ MSL 215–270° account roughness. MEA V–155 3000′ MSL btn LVL VOR and Franklinton, N.C. Int. MEA V–454, 5000′ MSL btn LVL VOR and LIB VOR. Changeover point 82 nmi from LIB VOR.

LINDEN RDO: DME unusable below 3500′ beyond 25 nmi 140–180°; below 5000′ 180–225° acct reduced coverage.

MONTEBELLO RDO: VOR unusable 110–220° beyond 35 nmi at MOCA. 058 rad unusable above 14,500′.

PULASKI RDO: VORTAC unusable beyond 35 nmi from 045° clockwise to 060° at MOCA.

QUANTICO MCAS RDO: Use LFR as H facil only.

ROANOKE RDO: Woodrum VOR unusable beyond 30 nmi from 360 to 285°, 20 nmi 286-360° at MOCA. H facil unusable beyond 40 nmi from 240 to 010° below 6000′ due excessive needle oscillation.

WASHINGTON

BELLINGHAM RDO: Intermittent roughness may be observed on V–23 below 6000′ MSL from 49 nmi thru 40 nmi S of VOR.

NEAH BAY RDO: H facil unusable 100–130° below 6500′ MSL acct terrain.

OLYMPIA RDO: VORTAC unusable below 7500′ MSL at 40 nmi 210–260°. TACAN unusable below 15,000′ MSL 260–270° at 40 nmi; below 9500′ MSL at 35 nmi 270–28[illegible]° account reduced coverage. VOR 348° rad unusable below 4500′ MSL beyond 24 nmi.

PASCO RDO: VOR unusable below 6500′ MSL beyond 40 nmi 150–210°; below 5500′ MSL 210–270° acct reduced coverage. Coverage within R–6715 from 270–320° not flt checked.

PORT ANGELES RDO: VOR coverage 40 nmi: 25 110° at 7000′; 110-140° at 14,500′; 140–150° at 20,500 150-170 °at 29,000′; 170–190° at 20,500; 190-220° 16,000′.

SEATTLE RDO: LFR NW crs has splits and multip beyond 20 nmi. VOR unusable beyond 10 nmi clockwise 165°. 309° rad unusable below 14,0 within 40 nmi.

WALLA WALLA RDO: VOR coverage at 40 nmi r stricted below 6000′, 355–020° and 148–176°; belo 7500′ from 130–150°; below 10,500′ from 020–060° a 110-130°; below 12,700′ from 065–110°.

WENATCHEE RDO: VOR unusable beyond 20 m below 20,000′ MSL 000–020° beyond 30 nmi belo 20,000′ MSL 020-075° beyond 40 nmi below 14,0 MSL 075 090° below 18,000′ MSL 090–190° belo 19,000′ MSL 190–240°.

WEST VIRGINIA

BECKLEY RDO: VOR unusable beyond 20 nmi 3 350° below 5600′ acct crs roughness, excluding 3 rad at Montgomery Int. Voice reception Charles FSS unreliable below 7500′ MSL 40 nmi radius Be ley VOR 030–180°. Reception satisfactory with a over VOR or MEA.

WISCONSIN

LA CROSSE RDO: VOR unusable 100–150° and 2 060° below 3300′ MSL beyond 20 mi.

MILWAUKEE RDO: Timmerman VOR unusable beyo 35 mi 300–310° below 3400′ MSL acct reduced co age. Alarm status MKE VOR indicated by tra mission of unkeyed 1020 cycle ident signifying u bility for nav and indicating imminent equipm transfer shutdown.

WYOMING

BOYSEN-RESERVOIR RDO: VORTAC has memor crs excursions and roughness all radials.

DUNOIR RDO: VOR restricted to awy rad use only.

SHERIDAN RDO: VORTAC unusable below 40 nmi belo 17,000′ MSL 160–175°; below 15,000′ MSL 175–3 and below 16,500′ MSL 300–230° acct reduced cover

VOR RECEIVER CHECK POINTS

The list of VOR airborne check points and ground check points is given on the following pages. Use of these eck Points is explained in Section I–4.

NOTE: The information is provided in the following order: Facility name (plus airport name, if needed); bearing in degrees magnetic from the VOR; location of the check point (distances in nautical miles); and altitude (in feet MSL, if any).

AIRBORNE

lene, Tex. (Municipal): 047°; 10.1 nmi silos in center f Ft. Phantom alternate for lgt acft 080' 9 nmi ctl wr and bcn.

candria, La. England AFB): 329°; over water tank.

candria, La. (Esler): 152°; over hangar 3.6 nmi from OR.

candria, Minn.: 223.5°; over apch end of rnwy 22.

ndale, S.C.: 342°; over N/S rnwy on Barnwell Co. rpt.

iston, Ala.: 082°; in center of segmented circle, distance 9.5 nmi; 2000'.

leton, Ohio: 238°; over ctl twr Columbus, Ohio-Port olumbus Airport; 2500'.

eville, N.C. (Mun): 278°; over ctl twr 13.6 nmi from OR; 3000'.

ens, Ga.: 308°; 3 nmi over center of three rdo twrs.

nta, Ga.: Lctn #1—012°; over end rnwy 09L. Lctn 2—020°; over end rnwy 27R.

usta, Ga. (Bush Field): 141°; directly over No. 17 of nwy #17; 300'.

usta, Me. (State): 257°; over LFR, 1.8 nmi from UG VOR; 1500'.

in, Tex. (Mueller Mun): 178°; Freeway Int aprxly 9 nmi N of Mueller Mun Arpt.

ersfield, Calif. (Meadows Fld): 127°; over apch end nwy 30; 1200'.

gor, Me.: 072°; over FSS Bldg., Old Town Arpt; 1000'.

lesville, Okla. (Phillips): 161°; over Phillips oil tank—hite ½ mi E of arpt trml.

n Rouge, La. (Ryan): 064°; over tank S side of rpt.

rice, Nebr.: 360°; over RR at Princeton, Nebr.; 2500'.

mont, Tex. (Jefferson County): 056°; water twr prxly 0.4 mi NE of NE end of rnwy 2.

ngham, Wash.: 145°; N end of rnwy 16–34; 660'.

Spring, Tex.: 199°; over the rdo bcn; 1000' AGL.

ngs, Mont. (Municipal): 073°; Intersection of rnwys –22 and 9–27; 4600'.

kstone, Va.: 123°; beacon lgt Lawrenceville, Va. Arpt; 500'.

mington, Ill. (Mun): 030°; lctd 11 nmi NE of BMI OR at railroad crossing river; 2000'.

Boise, Idaho (Air Trml): 086°; over dam outlet S end Lucky Peak Reservoir, 8.5 nmi from VOR; 5000'.

Bozeman, Mont.: 145°; over BZN rdo bcn; 5000'.

Brownsville, Tex. (Rio Grande Valley Intl): 244°; water twr in bldg area of arpt.

Brownwood, Tex: 167°; over arpt bcn.

Brunswick, Ga. (McKinnon): 023°; at arpt rotating beacon.

Burlington, Iowa: 296°; over rdo twr 3 nmi NNW Burlington Arpt.

Burlington, Vt. (Municipal): 030°; over arpt control twr 4.4 nmi from VOR; 2000'.

Butler, Mo.: 073°; over FSS bldg.

Butte, Mont.: 094°; intersection of rnwy 29–33; 6500'.

Carleton, Mich. (Detroit-Wayne-Major): 031°; the E/W and NW/SE rnwys SE of new ctl twr; 2200'.

Casper, Wyo. (Air Trml): 201°; over intersection rnwys 21–25–30; 6300'.

Centralia, Ill. (Mun): 027°; at apch end of rnwy 36.

Chadron, Nebr.: 014°; railroad intersection 1.5 nmi N arpt bndry.

Champaign, Ill.: 175°; over grain elevator 8 nmi S at Pesotum, Ill.; 2000'.

Cleveland, Ohio (Cleveland-Hopkins): 079°; over Cleveland Rbn (H) distance 13.5 nmi; 1500'.

Colorado Springs, Colo. (Peterson Fld): 320°; over microwave twr, 6.8 nmi.

Colts Neck, N.J.: 084°; over awy bcn twr at NE corner of Red Bank, N.J. Arpt.

Concord, N.H. (Mun): 132°; over rdo twr (old LFR) 5.0 nmi.

Corpus Christi, Tex. (Intl): 187°; over grain elevator 1 nmi E of arpt.

Cotulla, Tex.: 255°; rotating bcn on the Cotulla Intl Arpt.

Crescent City, Calif. (McNamara Fld): 104°; over Tank-farm E side of town; 1000'.

Crossville, Tenn (Meml Arpt): 333°; 11 nmi over metal hangar.

Cut Bank, Mont.: 312°; over center rnwy 31; 4800'.

Daggett, Calif.: 224°; over center twr LFR; 2500'.

Danville, Ill. (Vermillion Co.): 194°; int of rnwys 21 and 17; 1700'.

Dayton, Ohio (Mun): 131°; over new trml bldg, 10.76 nmi; 2500'.

Daytona Beach, Fla. (Mun) : 157° ; over remote ctld air/gnd facility antenna.

Decatur, Ala. (Pryor) : 092° ; over intersection of rnwy and taxiway 236° from HSV ; 1000′.

Delta, Utah: 346° ; at apch end of rnwy 34 ; 4900′.

Denver, Colo.: 189° ; over EGW rdo bcn ; 5800′.

Des Moines, Iowa: 356° ; center twr of DSM LFR, 4.2 nmi from VOR.

Douglas, Ariz. (Bisbee-Douglas Intl) : 119° ; over intersection rnwy 12–30 and 17R–35L ; 4700′.

Dublin, Ga. (Municipal) : 067° ; over SW end NE/SW rnwy.

Dubois, Idaho (Municipal) : 335° ; FAA Communications Bldg ; 5200′.

Eagle Lake, Tex.: 181° ; over center of football fld 0.5 nmi SW of Eagle Lake Arpt.

El Dorado, Ark. (Goodwin) : 228° ; trml bldg E side of arpt.

Ellensburg, Wash. (Bowers) : 255° ; center, W end of rnwy 7–25 ; 2300′.

Emporia, Kans.: 046° ; over schoolhouse Neosho Rapids, Kans., 8.5 nmi 2500′.

Ephrata, Wash.: 200° ; centerline, SW end of rnwy 2–20 ; 1500′.

Evergreen, Ala.: 100.7° ; arpt bcn lgt twr lctd on Evergreen (Middleton) Arpt., 15.3 nmi from VOR.

Fargo, N.Dak. (Hector) : 360° ; lctd apch end Hector Fld rnwy 35.

Farmington, Mo.: 195° ; over center of Open Air Theater NE of the town of Fredericktown and 7.0 nmi from VOR ; 2300′.

Fayetteville, Ark.: 183° ; VORTAC ; white circle on arpt ; 2500′.

Fayetteville, N.C.: 239° ; over water twr at Parktown, N.C. 8.0 nmi ; 1200′.

Fillmore, Calif.: 210° ; at CAV rdo bcn 1800′.

Findlay, Ohio: 048° ; over the Ohio Oil Company Admin Bldg at 2000′ ; aprxly 5 nmi from FDY VOR.

Flint, Mich. (Bishop) : Pontiac VOR 332° ; over apch end rnwy 9 ; 2200′.

Flying Cloud, Minn.: 349° ; 4.5 nmi over smokestack at Glen Lake Sanatorium ; 2000′.

Fort Leonard Wood, Mo. (Forney AAF) : 351° ; water twr N side E–W hvy dist 4.9 nmi from transmitter.

Fort Smith, Ark.: 232° ; water tank at N edge of arpt ; 1300′.

Fortuna, Calif.: 358° ; over intersection of rnwys Arcata Arpt ; 500′.

Fortuna, Calif. (Rohnerville) : 128° ; over apch end of rnwy 11 ; 1400′.

Fresno, Calif. (Air Trml) : 133° ; over apch end rnwy 11 ; 500′.

Gage, Okla.: 094° ; over LFR ; 3000′.

Galveston, Tex.: 110° ; arpt terminal bldg.

Garden City, Kans.: 100° ; Cimarron, Kans. at RR tracks and Main St.

Gardner, Mass.: 169° ; hangar mrkd "WORCESTER" on roof, Worcester Arpt ; 1000′.

Gila Bend, Ariz.: 193° ; over apch end of rnwy 35 of Gila Bend Aux. Fld ; 1500′.

Goodland, Kans. (Mun) : 083° ; over water twr NE edge o town of Brewster, Kans., 16 nmi ; 4000′.

Gordonsville, Va.: 305° ; over intersection of rnwy an center txwy Charlottesville-Abermarle Arpt., 16 nm from GVE–VOR ; 2000′.

Grand Forks, N. Dak.: 315° ; over Int N/S and E/W rnwys 1900′.

Grand Island, Nebr.: 141° ; over smoke stack 5.5 nmi fro VOR ; 3100′.

Grand Junction, Colo. Walker Fld) : 059° ; int rnwys : and 22 ; 6500′.

Grants, N. Mex.: 295° ; in flt over FSS adj to rnwy ; 700

Great Falls, Mont.: 026° ; center NE end rnwy 3–21 ; 3

Hallsville, Mo.: 225° ; 14 nmi Int of E/W and N/S rnw over Columbia Mun Arpt., Mo. ; 2000′.

Harlingen, Tex.: 149° ; over rot bcn on Mun Arpt.

Harrisburg, Pa. (York State) : 109° ; over triangle form by rnwys : 2000′.

Hattiesburg, Miss. (Mun) : 149° ; over water twr and r tating lgt bcn on arpt 10 nmi, 800′.

Hayes Center, Neb.: 258° ; 28 nmi over center of town Enders, Neb. ; 4500′.

Hibbing, Minn.: 311° ; over FSS Bldg ; 2400′.

Hickory, N.C.: 225° ; over end rnwy 24.

Hill City, Kans.: 057° ; Hill City Arpt bcn lgt 23 nmi fr the VOR.

Hobart, Okla.: 352° ; centerline of N/S rnwy 100′ above t elevation of the rnwy.

Hobbs, N. Mex. (Lea County) : 030° ; over circle on run pad apch end rnwy 3.

Hoquaim, Wash. (Bowerman) : 037° ; W end and cen rnwy 6 ; 500′.

Houghton, Mich. (County Mem'l) : 241° ; WHDF com bd twr 3.5 nmi from VOR ; 2100′.

Houlton, Me.: 042° ; over Admin Bldg on E side of flt a 5.5 nmi from VOR ; 1500′.

Houma, La.: 117° ; over intersection of rnwys 17–35 a 11–29.

Houston, Tex. (Andrau) : 276° ; arpt bcn on arpt ; 50′.

Houston, Tex.: 099° ; over intersection of E/W txwy a parking ramp of Ellington Field.

Huron, S. Dak. ((Howes) : 153° ; lctd over HON/SB 2000′.

Hutchinson, Kans.: 032° ; apch end rnwy 3 Hutchins Mun Arpt.

Imperial, Calif.: 313° ; apch end of rnwy 32 ; 200′.

International Falls, Minn.: 142° ; RR bridge over stream Ericsburg, Minn 5.4 nmi ; 2200′.

Jackson, Miss. (Hawkins) : 189° ; over arpt intersecti of rnwys 11–29 and 34L–16R.

Jackson, Tenn. (McKellar) : 267° ; over bcn twr ab arpt ; 1000′.

●**Janesville, Wis.** (Rock Co. Arpt) : 034° ; over center apch end of rnwy 04 ; 1600′.

Joliet, Ill.: 102° ; over centerline of NW end of NW/S rnwy ; 1500′.

Keeler, Mich.: 266° ; over intersection of N/S and E rnwys at Ross Fld, Benton Harbor, Mich. ; 1600′.

Kennebunk, Me.: 061° ; over Portland Arpt control twr 18 nmi from Kennebunk VOR ; 1500′.

uville, Mo.: 138°; over water twr at La Plata, Mo. (8.2 nmi from VOR).

ome, Ind.: 097°; over int NW/SE and NE/SW rnwys Marion Mun Arpt., Ind., 17.5 nmi from VOR; 1000'.

Crosse, Wis.: 321°; 5 nmi LFR; alt 1800'.

yette, Ind.: 135°; over Purdue Univ Stadium, 2100'.

e Charles, La. (Mun): 253°; over rotating bcn on ctl wr, 6.2 nmi.

ont, Iowa ((Lamont): 041°; over hwy "Y" 1 nmi W of on, Iowa.

do, Tex.: 315°; over arpt bcn 9.5 DME.

el, Miss. (Municipal): 025°; over water twr and rotating lgt bcn on arpt. 17.5 nmi from HBG VOR, 0'.

istown, Mont.: 072°; above center of rnwy 7; 5200'.

ngton, Ky. (Blue Grass): 305°; arpt ctl twr 7.6 nmi rom LEX VOR; 2500'.

al, Kans.: 056°; elevator 8.5 nmi NE Liberal, Kans. long Railroad.

field, Mich.: 051°; NE/SW rnwy Reynolds Fld, Jackon, Mich.; 2000'.

gston, Mont.: 199°; over ant of Livingston "H" facility; 5700'.

ton, Ky.: 027°; trml bldg 3.7 nmi from LOZ VOR; 00'.

in, Tex.: 328°; rotating bcn on Angelina Co. Arpt.

on, Ga. (Mun): 246°; 4.0 nmi from VQR over water nk; 2000'.

ter, Mo.: 349°; RR crossing 0.5 nmi E of Dexter, Mo.

chester, N.H. (Grenier Fld-Manchester Mun): 341°; er former USAF arpt ctl twr E side 17–35 rnwy. 0 nmi; 1500'.

quette, Mich.: 120°; 5.5 nmi over NW tip of Pelesier ake: 2000'.

shall, Tex.: 320°; water twr N of arpt.

shall, Mo. (Meml): 321° BWR; over MHL VORTAC ldg; 2000'.

sville, Calif. (Yuba County): 067°; intersection of ıwys; 1500'.

tone, N.Y. (Richards): 297°; Admin Bldg; 1500'.

omb, Miss. (Pike County): 248°; revolving arpt bcn.

ford, Oreg.: 212° (VOR); over rdo twr, 4.8 nmi 3000'.

ced, Calif.: 289°; (Castle VOR); over end rnwy 30; 50'.

ond, Tex. (Air Trml): 170°; over apch ends of rnwys 2 and 28; 1000'.

s City, Mont.: 031°; over apch end of rnwy 4, 3000'.

nocket, Me. (Mun): 317°; over FSS Bldg; 1500'.

neapolis, Minn. (Crystal Arpt): 166°; over apch end ıwy 13L. 4.9 nmi VORTAC; 1500' nmi.

t, N. Dak.: 241°; apch end rnwy 26; 1900'.

rtsville, Va. (Preston Glenn near Lynchburg, Va.): 92°; intersection all rnwys; 2500'.

tgomery, Ala. (Dannelly): 319°; over water twr, distance 6.1 nmi from VORTAC.

kegon, Mich. (County): 256°; over Muskegon LFR; 00'.

le Beach, S.C. (AFB): 061°; over apch end rnwy 5 rescent Beach Arpt.; 500'.

Napa, Calif. ((County): 045°; over rotating bcn on arpt; 500'.

Naperville, Ill.: 328°; over RR underpass lctd ½ nmi NE of the DuPage County Arpt; 2000'.

Nashville, Tenn.: 242°; WSM rdo twr near Brentwood, Tenn., 10.2 nmi from VOR.

Neola, Iowa: 047°; over grain elevator Harlan, Iowa; 2500'.

Neosho, Mo.: 343°; center triangle formed by the intersection of 3 rnwys of Joplin, Mo., Mun Arpt.

NewBern, N.C.: 259°; Int of E/W rnwys Oak Grove (navy) arpt.

New Orleans, La. (Lakefront Arpt): 081°; over Lakefront twr.

Newton, Iowa: 142°; lctd apch end NW/SE rnwy.

Norfolk, Nebr.: 095°; over racetrack town of Stanton, Nebr.; 2600'.

North Bend, Oreg.: 254°; intersection rnwy 22–31; 750'.

North Platte, Nebr. (Lee Bird): 82.6°; over water twr Brady, Nebr.; 4000'.

Oklahoma City, Okla. (Will Rogers): 100°; rdo bcn stn; 1800'.

Oklahoma City, Okla. (Wiley Post): 041°; OKC VOR int rnwys 17–35 and 12–30; 1800'.

Omaha, Nebr. (Eppley Fld): 309°; centerline of SE end of NW/SE rnwy.

O'Neill, Nebr.: 115°; at intersection of E/W road and the railroad ½ nmi SE of Inman, Nebr.

Ontario, Calif. (Intl: 347°; over and parallel with txwy btn rnwy 21 and 25; 2300'.

Oshkosh, Wis.: 017°; WOSH Commercial Best twr 3.5 nmi from VOR.

Ottumwa, Iowa (Mun); 303°; int of rnwys 32 and 22.

Peck, Mich.: 163°; over apch end rnwy 3 on St. Clair Co. Arpt; 2200'.

Philip, S.D.: 156°; over 2712' twr 5 nmi from VOR; 3300'.

Phoenix, Ariz.: 256°; centerline rnwy 8R–26L; 2800'.

Picayune, Miss.: 140°; over rotating lgt bcn on arpt.

Pinehurst, N.C.: 086°; over windsock on top of hangar at Southern Pines, Pinehurst-Southern Pines Arpt.

Pittsburgh, Pa.: 333°; ctl twr, Greater Pittsburgh Arpt; 3000'.

Plainview, Tex. (Hale Co.): 024°; intersection rnwys 4–22 and 12–30, 6 nmi from VOR; 4400'.

Plattsburgh, N.Y.: 229°; arpt bcn Plattsburgh Arpt; 1500'.

Pocatello, Idaho: Lctn #1—031°; over apch end of rnwy #3; 5450'. Lctn #2—029°; over intersection or runways 21 and 25; 5450'.

Pontiac, Mich. (Municipal): 113°; over circle of stones on SE corner of arpt; 2000'.

Portland, Oreg.: (Intl): 162°; intersection 2 and discontinued 29; 1000'.

Poughkeepsie, N.Y.: 249°; arpt twr site at Dutchess County Arpt; 1500'.

Prescott, Ariz.: 124°; rnwy 3–21 and 12–30 intersection; 5500'.

Presque Isle, Me. (AFB): 184°; Sprague ville LFR site; 2000'.

Princeton, Maine: 163°; over int of rnwys, 9.63 nmi from VOR; 1000'.

Pueblo Colo. (Pueblo Mem'l) : 294° ; over KOAA TV twr, 5.4 nmi NW of arpt (twr lgt 6322′ MSL).
Pulaski, Va.: 066° ; bldg on S side of E/W rnwy at VPI Arpt., Blackburg, Va. ; 4000′.
Quitman, Tex.: 241° ; water tank, town of Alba, Tex.
Rawlins, Wyo.: 065° ; (Cherokee VOR), 17 nmi ; 7300′.
Raymond, Nebr.: 082° ; over grain elevator at Waverly, Nebr., 9.8 nmi ; 2500′.
Red Bluff, Calif. (Mun) : 329° ; over centerline rnwy 33 ; 500′.
Rhinelander, Wisc. (Drott Arpt): 210° ; over rnwy Int ; 2500′
Riverhead, N.Y. (Brookhaven Arpt) : 170° VORTAC ; 4.5 nmi over apch end of rnwy 15 ; 1500′.
Roswell, N. Mex.: 027° ; over apch end rnwy 3 ; 400′.
Royston, Ga.: 067° ; over intersection rnwys 5–23 and 17–35 at Anderson, S.C. Mun Arpt ; 1250′.
Russell, Kans.: 091° ; over water twr in center of town of Wilson, Kans.
Sacramento, Calif.: 015° ; apch end rnwy 02 ; 100′.
St. Joseph, Mo. (Rosecrans Mem'l) : 167° ; centerline of the extreme N end of the N/S rnwy.
Salina, Kans.: 115.5° ; over town of Kipp, Kans., 12 nmi from VOR and 6 nmi SE of Mun Arpt.
Salt Lake City, Utah: 158° ; centerline rnwy 34L/16R entire length #1 Arpt ; 4400′.
Samsville, Ill.:064° ; over int at rnwys 4–22 and 13–31 at Mt. Carmel Mun Arpt., Ill. ; 1500′.
Sault Ste. Marie, Mich. (Mun) : 336° ; int E–W and NW/SE rnwys ; 2100′.
Sayre, Okla. (Mun) : 175° ; over rot bcn twr ; 3000′.
Sheridan, Wyo. (County) : 122° ; over center of apch end rnwy 13, distance 4.9 nmi ; 4500′ MSL.
Shreveport, La. (Downtown) : 011.2° ; over water tank N of arpt, distance 1.3 nmi.
Shreveport, La. (Greater Shreveport) : 175° ; over the Admin Bldg.
Sinton, Tex.: 318° ; over bcn on fld 9.5 nmi CRP VORTAC.
Smithwick, S. Dak.: 300° ; on Hot Springs, S. Dak. Arpt at intersection E/W taxiway and N/S rnwy.
South Boston, Va.: 254° ; over trml bldg Danville Mun Airport ; 1500′.
Spokane, Wash. (Intl) : 027° ; center NE end rnwy 21 ; 2900′.
Stevens Point, Wisc.: 314° ; over ant twr 5 nmi NW of VOR ; 2500′.
Stockton, Calif.(Mun) : 299° ; over water twr adjt to S side of arpt ; 1000′.
Sulphur Springs, Tex.: 229° ; over awy bcn lgt on SE corner of arpt.
Syracuse, N.Y. (Hancock Arpt) : 135° ; over ctl twr 4.75 nmi from VORTAC ; 2000′.
Talladega, Ala.: 029° ; over Anniston, Ala. Arpt.
Tallahassee, Fla. (Mun) : 241° ; over twr on arpt.
Terre Haute, Ind. (Hulman) : 229° ; int of NE/SW and NW/SE rnwy ; 2000′.
Texarkana, Ark.: 123° ; over rdo bcn ; 1000′.
Thibodaux, La.: 117° ; over intersection of rnwys 17–35 and 11–29 on Houma Mun Arpt.
Thief River Falls Minn.: 124° ; over RR & hiway crossing adj Hazel, Minn. ; 2000′.
Thurman, Colo.: 349° ; in fit over Akron VOR transmitte site ; 5600′.
Topeka, Kans. (Philip Billard) : 073° ; at hiway intersection 1.5 nmi SE McLouth, Kans.
Traverse City, Mich. (Municipal) : 342° ; at intersection of the N/S–E/W rnwys ; 1600′.
Troy, Ill.: 322° ; over int of rnwys 17 and 11 at Civic Mem Arpt., Alton, Ill. ; 1600′.
Tucson, Ariz.: 258° ; main rnwy intersection ; 2800′.
Utica, N.Y. (Oneida Co.) : 319° ; over ctl twr bldg ; 11.5 nmi from BVOR ; 1500′.
Valdosta, Ga.: 006° ; over lgt bcn E side of arpt.
Vandalia, Ill.: 179° ; centerline at N end N/S rnwy.
Vienna, Ga. (VORTAC) : 226° ; over center of NE/SW rnwy, Cordele, Ga., Arpt.
Waco, Tex.: 139° ; over the dam of Lake Waco.
Waterloo, Iowa: 127° : 8 mi over center twr KWWL broadcast stn ; 2000′.
Waterville, Ohio: 181° ; over Admin Bldg University Arpt Bowling Green, Ohio aprxly 4.0 NM from VWV VOR 2000′.
West Point, Ind. (VORTAC) : 036° ; over int of rnwys Purdue Univ Arpt ; 2000′.
Wichita, Kans.: 161° ; centerline of NW end of NW/SE rnwy.
Wichita Falls, Tex. (Sheppard AFB/Wichita Falls Mun Trml) : 011° ; at bridge over Red River 8 nmi N of Sheppard AFB ; 1500′.
Wilkes Barre, Pa.: 243° ; ctl twr, Wilkes Barre-Scranton Arpt ; 3000′.
Williston, N. Dak. (Sloulin Fld) : 121° ; apch end rnwy 11 2600′.
Willmar, Minn.: 289° ; over twr at Pennock, Minn. ; 25
Willows, Calif. (Willows-Glenn) : 346° Maxwell VOR ; over large green hangar NE side of arpt ; 1000′.
Wilmington, N.C. (New Hanover Co.) : 204° ; over w radar ant on arpt 5.5 nmi ; 1000′.
Wink, Tex. (Winkler Co.) : 149° ; over int rnwy 22 and 1 5.9 nmi VOR ; 3818′.
Winner, S.D. (Mun) : 201° ; over center of race track 0 nmi.
Winona, Minn.: 102° ; over orange and white transmissio line twr N bank of Mississippi River 3.8 nmi fr VOR ; 1600′.
Winslow, Ariz.: 106° ; intersection rnwys 4–11 ; 5100′.
Winston-Salem, N.C.: 295° ; over ctl twr.
Worland, Wyo. (Municipal) : 010° Boysen Reservoir VOR TAC ; over taxi strip between Trml Bldg and rnw 16–34 ; 5200′.
Worthington, Minn.: 047° ; over grain elev at Brewste Minn. ; 2800′.
Yakima, Wash.: 246° ; intersection N/S and E/W rnwys 1600′.
Yankton, S.D.: 256° ; 7 nmi over twr ; 2500′.
Yuma, Ariz. (MCAS/Yuma Intl) : 166° ; centerline rnw 17–35 ; 400′.

GROUND

Aberdeen, S. Dak. (Saunders) ; 304° ; midway and cente of N/S taxi strip leading from S edge ramp on E sid arpt.

any, Ga.: 149.5°; center of tie down area on N edge r ramp.

xandria, La. (Esler Fld): 151°; 3.5 nmi in front Admin ldg.

e, Tex. (Jim Wells Co. Mun): 270°; on taxi strip N f hangar.

ntown, Pa. (Allentown-Bethlehem-Easton): 178°; on nwy 17 near the intersection of rnwy 24.

arillo, Tex. (AFB/MUN): 207°; lctd 985' SE of centerne on NE end of the NE/SW rnwy.

arillo, Tex. (Tradewind Arpt): 003°; Send on curve of axiway 50' W apch end rnwy 35 centerline.

erson, S.C. (Mun): 038°; on ramp in front of trml dg.

more, Okla. (Mun): 045°; adjt to S end of NS rnwy.

ntic City, N.J. (Pomona) **NAFEC:** Lctn #1—313°; on nup pad at apch end rnwy 13, 250' from centerline nwy 13–31. Lctn #2—230°; on runup pad at apch d rnwy 4, 500' from centerline rnwy 4-22. Lctn 3—208°; on runup pad at apch end rnwy 35, 250' om centerline of rnwy 17-35. Lctn #4—121°; on nup pad at apch end rnwy 31, 250' from centerline rnwy 13–31.

more, Md. (Friendship Int'l): Lctn #1-293°; centerne of rnwy 10–28 on old runup pad. Lctn #2—290°; 0' N of centerline of rnwy 10–28 on runup pad.

esville, Okla. (Phillips): Lctn #1—167°; S end parel taxi strip. Lctn #2—166°; N end parallel taxi rip. Lctn #3—166°; opposite trml parallel taxi rip.

mont, Tex. (Jefferson County): 051°; W edge of N d of parking ramp.

dji, Minn: 130°; SE corner of Trml ramp.

Spring, Tex. (Howard County): 140°; ctr of runup ea to rnwy 16.

hamton, N.Y. (Broome County): 077°; 400' S of etl r on S ramp south.

ark, N. Dak.: 275°; intersection of N/S taxi strip and e apch end of rnwy 13.

e, Calif. (Riverside Co.): 048°; on ramp 500' in ont of FSS Bldg.

, Idaho (Air Trml): 084°; center N/S taxiway beeen rnwys 28L–10R and 28R–10L on fld.

ling Green, Ky. (Bowling Green-Warren County): 21°; taxiway in front of Admin Bldg.

el, Tenn. (Tri-City): 282°; SW end of ramp in front trml bldg.

nsville, Tex. (Rio Grande Valley Intl): 248°; apch d rnwy 13L.

sbad, N. Mex.: 334°; immediately W of FSS and twr dg on ramp.

tanooga, Tenn. (Lovell): 332°; centerline S taxiway point 175' NE of centerline rnwy 32.

enne, Wyo.: 199°; on yellow line on taxi strip imediately SE or apch end rnwy 8.

ago (West Chicago), Ill. (Du Page Co.): 067°; 5.2 ni on SW corner of N parking ramp at int of txwy rnwy 15 and txwy paralleling rnwy 15–33.

dress, Tex.: 353°; intersection of edge of ramp at cenr taxi strip.

Cincinnati, Ohio: (See Covington, Ky.).

College Station, Tex.: 065°; on W edge of parking ramp on Easterwood Arpt.

Columbia, S.C. (Owens Fld): 022°; compass rose on parking ramp.

Columbia, S.C. (Mun): 331°; circle 450' S of etl twr alt 235'.

Columbus, Ga. (Muscogee Co.): 145°; pointed circle W end of main ramp area.

Columbus, Miss. (Lowndes County): 095°; at center taxiway between parking ramp and rnwy.

Covington, Ky. (Greater Cincinnati): 043°; rnwy 27 E of intersection rnwys 27 and 22.

Cross City, Fla. (Site 58, MEM-TPA): 298°; taxiway near wind indicator and rotating bcn lgt.

Dalhart, Tex.: 170°; SE corner of main ramp.

Dallas, Tex. (Addison): 159°; intersection of center and parallel taxiways.

Danville, Va. (Mun): 338°; S of trml bldg center of intersection of txwy to rnwy 6 and txwy to rnwy 2.

Dickinson, N. Dak.: 182°; intersection of E/W txwy and N/S txwy.

Dodge City, Kans.: 150° center of NW end of NW/SE rnwy.

Dothan, Ala. 186°; intersection of ramp and taxi strip NW of trml bldg.

Dubuque, Iowa: 335°; on ramp in front of terminal bldg.

Duluth, Minn.: 012°; center of intersection formed by taxi strips leading to rnwys 31 and 2 just off SE corner of ramp.

Duncan, Okla. (Halliburton Fld): 328°; trml ramp.

Dyersburg, Tenn.: 250°; intersection of ramp and center taxi strip.

East Hartford, Conn. (Rentschler): 347°; lctd at taxi strip near N side of etl twr.

Eau Claire, Wis.: 180°; center of concrete ramp 150' W of Arpt Opern Office.

Elizabeth City, N.C. (CGAS): Lctn #1—028°; lctd on taxiway leading from CG ramp.

Elko, Nev.: 329°; on apron just off NE end of rnwy 5–23.

Elmira, N.Y. (Chemung County): 066°; midpoint of short taxistrip between rnwy 10 and 6 at W side of arpt, aprxly 198' S of C/L rnwy 10 and 374' N of C/L rnwy 6.

Erie, Pa. (Erie-Port Erie): 059°; txwy apchg rnwy 6.

Eugene, Oreg. (Mahlon-Sweet): 068°; apch to apron immediately W of the Amin Bldg.

Florence, S.C.: 235°; on taxiway W of the end of rnwy 18.

Fort Benning, Ga. (Lawson AAF): Lctn #1—021°; run up area on txwy at apch end of rnwy 20. Lctn #2—019°; run up area on txwy W etl twr at intersection or rnwy 02–20 and 14–32. Lctn #3—055°; run up area on txwy S of etl twr at junction with rnwy 14. Lctd #4—130°; run up area on txwy at apch end of rnwy 32.

Fort Dodge, Iowa: 118°; 6.1 nmi from VOR on W edge of trml bldg.

Ft. Lauderdale, Fla (Hollywood Intl Arpt) : 120° ; on ramp in front of Trml Bldg.

Fort Myers, Fla. (Page) : 172° ; N side of Trml ramp.

Fort Riley, Kans. (Marshall AAF) : 030° ; on SE corner of tie down area and taxiway apchg rnwy 4.

Fort Rucker, Ala. (Cairns AAF) : Lctn #1—019° ; run up area on txwy apch end rnwy 13. Lctn #2—035° ; NW of Int rnwy 13 and 18. Lctn #3—040° ; run up area on txwy Int rnwy 13 and 18. Lctn #4—059° ; run up area on txwy N of apch end rnwy 24. Lctn #5—063° ; run up area on txwy S apch end rnwy 24. Lctd #6—058° ; run up area on txwy at Int rnwy 24 and 36. Lctn #7—078° ; run up area on txwy W of apch end rnwy 36. Lctn #8—062° ; on run up area txwy N of apch end rnwy 6.

Fort Stockton, Tex.: 116° ; on ramp N of terminal.

Goldsboro, N.C. (Seymour Johnson AFB) : 028° ; run up pad at apch end rnwy 8.

Green Bay, Wis. (Austin-Straubel) : 141° ; intersection of circular taxi strip, W of Admin Bldg., and taxi strip leading to intersection of S and SE rnwys.

Greensboro, N.C.: 213° ; Ramp in front of twr.

Greenwood, Miss.: 060° ; central taxiway adj to ramp.

Greenwood, S.C. (County) : 251° on taxiway apch end of rnwy 9.

Gulfport, Miss.: 098° ; on arpt.

Harrison, Ark.: 131° ; Int taxiway and ramp.

Helena, Mont. (City-Co.) ; taxiway adj to apch end rnwy 26.

Hobbs, N. Mex. (Lea County) : 030° ; on runup pad apch end rnwy 3.

Hot Springs, Ark.: 245° ; taxiway adj to rnwy 5.

Houston, Tex.: 292° ; NE end rnwy 12.

Hyannis, Mass. (Barnstable Mun) : 243° ; lctd on rnwy apron for rnwy 24.

Idaho Falls, Idaho (Fanning Fld) : 007° ; junction of N/S txwy and rnwy 16–34, at NE corner of arpt.

Ithaca, N.Y. (Tompkins Co.) : 202° ; at bend in txwy, 375′ from centerline of NW/SE rnwy.

Jamestown, N. Dak.: 258° ; junction of taxi strip leading from hangar with SW taxi strip.

Johnstown, Pa. (Cambria County) : 155° ; taxiway to rnwy 33.

Junction, Tex. (Kimble County) : 143° ; N edge of parking ramp.

Key West, Fla. (Boca Chica) : 091° ; W just N of apch end of rnwy 7.

Key West, Fla. (Int'l) : 131° ; NW portion of ramp.

Kinston, N.C. (Stallings) : 230° ; 500′ in front of Admin Bldg.

Klamath Falls, Oreg.: 294° ; 154′ N of txway in front of Admin Bldg., and 36′ from E edge of ramp.

Lafayette, La.: Lctn #1—350° ; on taxiway at N end N/S rnwy. Lctn #2—343° ; on taxiway at S end N/S rnwy.

La Grange, Ga.: 106° ; on compass rose at taxi strip intersection aprxly 500′ due S of Admin Bldg.

Lancaster, Pa.: Intersection or ramp and txwy leading to intersection of rnwys.

Lansing, Mich. (Capital City) : 053° ; center of apch end rnwy 5.

Laramie, Wyo. (Brees) : 100° ; on loading ramp.

Laredo, Tex. (AFB) : Lctn #1—137° ; off end of ran on taxiway 2, 4.8 nmi. Lctn #2—131° ; off S end ramp on taxiway 6, 4.0 nmi.

Laredo, Tex.: 315° ; on ramp adj to apch bcn.

Las Vegas, Nev. (McCarran Fld) : 351° ; on run-up ar W side rnwy 19.

Las Vegas, N. Mex.: 231°, concrete ramp N of FSS Bl

Lawton, Okla.: 349° ; on trml apron at the point in secting the S taxi strip.

Little Rock, Ark. (Adams) : 314° ; on taxi strip adj junction rnwy 14.

Longview, Tex. (Gregg County) : 125° ; txwy adj to rn 13 to end of rnwy 13.

Louisville, Ky. (Bowman) : 329° ; taxiway W of rnwy

Louisville, Ky. (Standiford) : 301° ; taxiway between r and rnwy 19.

•Lubbock, Tex.: 103° ; center of warm up pad for rnwy 1

Lufkin, Tex.: (Angelina Co. Arpt) : 328° ; Intersection ramp and taxiway in front of Trml Bldg.

Mansfield, Ohio (Mun) : 133° ; at intersection of NW a SW taxiways.

Marfa, Tex. (Alpine) : 108° ; S edge of ramp in fron FSS.

Marianna, Fla.: 310° ; ESE end taxiway 6.

Marshall, Tex. (Harrison Co Arpt) : 318° ; Int of E a N/S taxiway in front of N ramp.

Martinsburg, W. Va.: 281° ; near apch end of rnwy 3

Mason City, Iowa: 356° ; on centerline S end of N/S rn

McAlester, Okla. (Mun) : 350° ; taxistrip at terminal ra

McAllen, Tex. (Miller Int'l) : Lctn #1—040° ; at in section E/W txwy and N/S txwy. Lctn #2— 01 in front airline trml on gate two loading spot.

Melbourne, Fla. (Eau Gallie) : 146° ; 220′ E of FSS.

Meridian, Miss. (Ky) : 121° ; from run up ramp for rn 23.

Midland, Tex. (Air Trml) : Lctn #1—188° ; center warm up pad for rnwy 10. Lctn #2—178° ; int tx C and ramp in front of Trml Bldg.

Mineral Wells, Tex.: 307° ; intersection of txwy and N rnwy.

Missoula, Mont. (County) : 340° ; 5′ from edge of ramp front of Admin Bldg.

Mobile, Ala. (Bates) : 107° ; Int of N/S and E/W tx E of rnwy 18–36. 109.5° ; Int of W ramp and W tx

Monroe, La. (Selman) : 033° ; arpt ramp in front of structure adj to the txwy leading to intersection rnwys 17–35 & 4–22.

Muscle Shoals, Ala.: 289° ; eastern end of E/W rnwy 11- equi-distance from end and both sides of rnwy.

Nantucket, Mass. (Memorial) : 241° ; taxiway apchg rn 24.

Needles, Calif. (Site 25B, LAX–AMA) : 253° ; on ramp front of Admin Bldg.

New Bern, N.C.: 088° ; on compass rose at ramp.

New Orleans Intl, La. (Moisant Fld) : 235° ; center of p meter txwy 100′ S of rnwy 10.

Norfolk, Va. (Mun) : 031° ; center of txwy "E", 250′ N of centerline of rnwy 22.

Oakland, Calif. (Metro-Oakland Int'l): 081°; middle of pad between rnwys 27L and 27R.

Olympia, Wash.: 347°; on ramp in front of Admin Bldg.

Orlando, Fla. (Herndon): 300°; midpoint of N/S taxiway on W bndry of arpt.

Paducah, Ky. (Barkley): 040°; on txwy apchg end of rnwy 22.

Palacious, Tex.: 110°; intersection NW end NW/SE rnwy and S txwy strip.

Panama City, Fla. (Bay Co. Arpt): 195°; N/S txwy 1050' N or Term bldg.

Paris, Tex. (Cox Fld): 348°; intersection of N/S and E/W txwys.

Parkersburg, W. Va. (Wood County): Lctn #1—209°; run-up area N side of rnwy 28. Lctn #2—207°; on txwy near intersection rnwys 16 and 21.

Pasco, Wash.: 020°; S of int ofN/S txwy and rnwy 20L.

Paso Robles, Calif.: 248°; 150' S of Admin Bldg on parking ramp, indicated by circle and sign.

Pecos, Tex. (Mun): 133°; on ramp adj to center taxiway.

Pellston, Mich. (Emmet Co.): 230°; intersection of centerlines of N/S rnwy and E/W txwy of arpt.

Pendleton, Oreg.: 076°; 200' W of Admin Bldg.

Peoria, Ill. (Greater Peoria): 098°; at SW corner of service ramp E side of fld.

Philadelphia, Pa. (North Philadelphia): 215°; on taxi strip between ramp and rnwy 10.

Philipsburg, Pa. (Black Moshannon-State): 252°; rnwy intersection.

Pierre, S. Dak.: 250°; in front of municipal hangar.

Pine Bluff, Ark. (Grider): 179°; center txwy at junction N/S rnwy.

Ponca City, Okla.: 101°; taxi strip at junction to trml ramp.

Pontiac, Mich.: 114°; center of warmup pad S of apch end rnwy 27.

Pueblo, Colo.: 244°; painted circle with arrow on ramp W of Admin Bldg.

Quincy, Ill. (Quincy-Baldwin Fld): 030° at intersection of NE/SW and NW/SE taxi strips N of trml bldg.

Raleigh, N.C.: 244°; end rnwy 5.

Rapid City, S. Dak.: 320°; in front of Admin Bldg adj to center taxi strip.

Raymond, Nebr. (Lincoln AFB/Mun): 174° run up pad of rnwy 35R along centerline of N/S txwy.

Redding, Calif. (Mun): 310°; intersection txwy and rnwy 12.

Redmond, Oreg.: 066°; on ramp in front of Admin Bldg 60' W of centerline of txwy to rnwy 10–28.

Reno, Nev.: 240°; lctd on concrete runup mat for rnwy 16.

Riverton, Wyo. (Mun): 178°; txwy between Admin Bldg and rnwy.

Roanoke, Va. (Woodrum): 099°; filled area rnwy 27.

Rochester, Minn.: 030°; of taxiway that enters apch end of rnwy 31.

Rochester, N.Y. (Monroe Co.): 149°; on ramp in front of ctl twr 415' from centerline rnwy 1–19 and 305' from centerline of rnwy 7–25.

Rock Springs, Wyo.: Lctn #1—266°; in center of turn-around E end rnwy 25. Lctn #2—261°; in center of turn-around W end rnwy 7.

Rockford, Ill.: 112°; apex of txwys at center of arpt.

Rocky Mount, N.C.: 263°; right 3 rnwy 33, marker.

Rome, Ga. (Russell Fld): 348°; Intersection of taxiways 200' S of the terminal bldg.

Saginaw, Mich. (Tri-City): 280°; lctd on NE parking ramp 12' from field edge near center txwy.

St. Paul, Minn., (Downtown Arpt): 291°; over drain in center of int parking ramp and taxiway in front of trml bldg.

St. Petersburg, Fla. (Pinellas County Int'l): 255°; parking ramp 300' SE of ctl twr.

St. Thomas, V.I. (Charlotte Amalie, Truman): 118°; on center point of arpt txwy on line 3 mi WNW.

Salinas, Calif. (Mun): 257°; rgt shoulder rnwy 21, directly in front of trml bldg.

Salisbury, Md. (Salisbury-Wicomico County): 243°; ramp front of ctl twr.

San Angelo, Tex. (Mathis): 236°; E edge of ramp in front of twr.

San Antonio, Tex. (Stinson Mun): Lctn #1: 329R, run up area at apch end rnwy 9. Lctn #2: 335R, on W end ramp opposite hangars 1 and 2.

San Juan, Puerto Rico (Intl): 081°; lctd on taxiway NE trml bldg.

Santa Barbara, Calif.: 198°; gate 2 in front of trml bldg over Figure 2 painted on apron.

Santa Catalina, Calif.: 346°; SW corner apch end rnwy 4 Santa Catalina Arpt.

Santa Fe, N. Mex. (New Municipal): 334°; at junction main intersection txwy and ramp.

Sarasota, Fla. (Bradenton): 172°; on ramp 800' N trml bldg.

Scottsbluff, Nebr. (Mun: 240°; NE edge ramp opposite trml bldg and W of txwy leading to rnwy 30 aprxly 3000' from apch end.

Seattle, Wash. (Seattle-Tacoma Int'l): 028°; 30' near edge of ramp S and W of Admin Bldg.

Sioux City, Iowa: 314°; painted circle directly in front of new twr.

Sioux Falls, S. Dak.: 148°; in line with E edge of txwy W of ctl twr, 75' S from N edge of parking ramp.

● **Sonoma Co. Arpt.**: 083.5°; SW corner of main ramp.

South Bend, Ind. (St. Joseph Co.): 178°; center of western N/S txwy 200' N of N edge of trml ramp.

Spartanburg, S.C. (Municipal): Lctn #1—192°; at compass rose on ramp.

Springfield, Ill. (Capital): 214°; in front of twr at intersection NW/SE and NE/SW taxi strips.

Springfield, Mo.: 191°; at bend in N/S txwy 400' S of N end of taxi strip.

Stinson, Tex. (Mun Arpt): Lctn #1, 329°; runup area at apch end runway 09. Lctn #2, 335°; on W end of ramp opposite hangars 1 and 2.

Thermal, Calif.: 328°; ramp 250' in front of hangar.

Topeka, Kans. (Philip Billard Arpt): 212°; N/S taxiway W of tetrahedron.

Truth or Consequences, N. Mex.: 155°; on SE/NW txwy adj to wind cone.

Tucumcari, N. Mex.: Lctn #1—255°; over square metal plate lctd on hangar ramp paved area. Lctn #2—266°; over painted orange circle, lctd on taxi strip 100′ off end of rnwy 8.

Tulsa, Okla. (Int'l): Lctn #1—260°; W end rnwy 8. Lctn #2—266°; on txwy SW corner AAL ramp. Lctn #3—265°; in runup position for rnwy 17R.

Tuscaloosa, Ala. (Van De Graaff): 241°; point lctd on centerline of txwy midway between ramp and rnwy.

Twin Falls, Idaho (Joslin): 030°; on parking strip apron 300′ SW of Admin Bldg.

Vero Beach, Fla.: 112°; on taxiway adj to wind sock adj to rnwy 11–29.

Vichy, Mo.: 241°; on center line of NE/SW rnwy 125′ from NE end Rolla National Arpt.

Victoria, Tex. (Victoria Co.-Foster): 126°; apch end rnwy 13L.

Waco, Tex., (Muni): 132°; ramp N of terminal.

Walla Walla, Wash. (City-County): 025°; ctr of txwy apch rnwy 20, mrkd.

Walnut Ridge, Ark.: 050°; taxi strip at parking apron adj to tetrahedron.

Watertown, N.Y. (Mun): 048°; ramp in front of Admin. Bldg.

Watertown, S. Dak.: 184°; lctd SE corner of ramp near taxiway leading to rnwy 12–30.

Wausau, Wis. (Alexander): 338°; 100′ N of wind tee. 30′ from S edge of concrete trml ramp where concrete ramp terminates and blacktop ramp begins.

Wenatchee, Wash. (Pangborn Fld): 45°; front of Administration Bldg.

Westfield, Mass.: 304°; from center of compass rose lctd end of rnwy 15.

Wheeling, W. Va. (Wheeling-Ohio County): 219°; txwy on E side of ramp.

Williamsport, Pa., (Williamsport-Lycoming Co.): 237°; Int of txwy to rnwy 9 and center txwy.

Woodring, Okla.: 348°; ramp W of Term. Bldg.

Youngtown, Ohio: 182° compass rose end of rnwy 18.

Zanesville, Ohio: 010°; on arpt 270′ NE of intersection of NE/SW and NW/SE taxistrips on centerline of NE/SW taxistrip.

VFR AIRPORT TRAFFIC PATTERNS

(In accordance with FAR PART 91.89(c)(3))

Airports	*Runways*	*Departure Procedures*	*Traffic Patterns Alts.*
tlanta, Ga.	9R, 9L	No turns until 3 miles, 2500' for *large acft.	
	27R, 27L	No turns until 3 miles, 2500' for *large acft.	
	15	No turns by *large acft. over more populated areas until 3 mi., 2500'.	
	21	Turn south when speed & altitude permit, or as directed by ATC.	
etts AAF, Tobyhanna Supply Depot, Pa.	14	Right hand tfc pattern.	
urlington Mun., Vt.		Single engine.	1140' MSL
		Multi engine.	1340' MSL
aldwell-Wright, Fairfield, N.J.	27	Acft shall not start crosswind leg until well past the school ltd ¼ mi to the right of the extended rnwy centerline and ¼ mi from the arpt.	1000' AGL (all rnwys)
hicago-Midway, Ill.		Turbine powered acft climb as rapidly as possible.	2000' AGL
hicago-OHare I'ntl Arpt., Ill.		Large acft climb as rapidly as possible.	2000' AGL
over ABF, Del.	01	Right hand tfc pattern.	
	31	Right hand tfc pattern.	
resno Air Terminal, Calif.	29R	*Large reciprocating and turboprop aircraft*–climb on rnwy heading to 1000' AGL, before starting left turn prior to leaving or continuing to oper in the left tfc pattern.	Turbojets–2000' AGL Turboprops and large reciprocating engine aircraft–1500' AGL
	25	*Large reciprocating and turboprop aircraft*–climb on rnwy heading to 1000' AGL before starting left turn prior to leaving or continuing to oper in the left tfc pattern.	
	29R	*Turbojets*–climb on rnwy heading until past Fresno State College before making right turn out of tfc or continuing to oper in the right tfc pattern.	
ardner, Kans.	East	Recommend alt not above 400' AGL until cross-wind leg northbound. Exit pattern NW to remain clear of tfc patterns of Olathe NAS, 3.5 mi NE.	
ennings Arpt, La.	13, 17, 22	Right hand tfc pattern.	
ansas City Fairfax Mun., Kans.		Acft under 12,500 lbs.	600' AGL

Large acft—acft weighing over 12,500 lbs maximum certificated take-off weight.

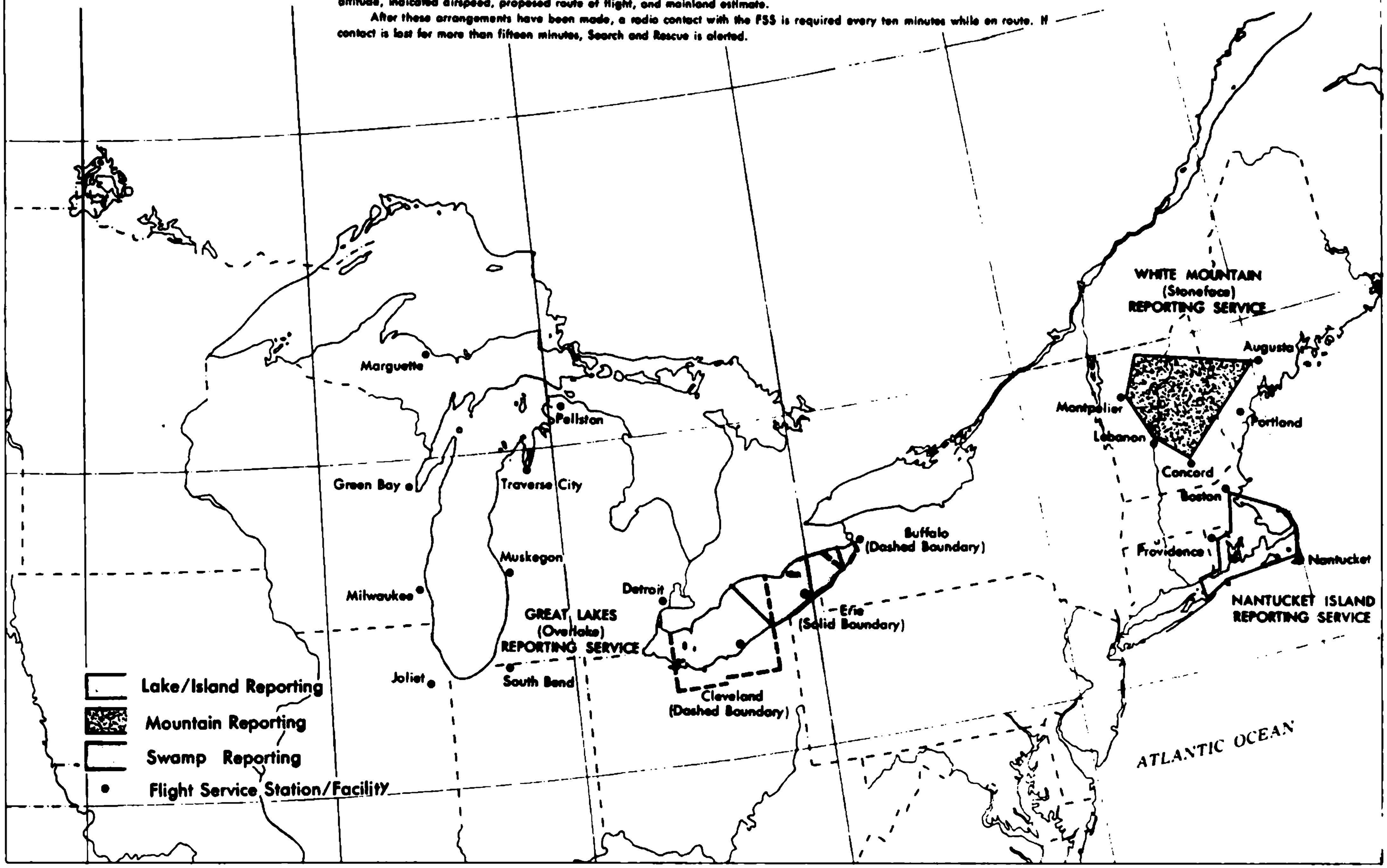
Airports	*Runways*	*Departure Procedures*	*Traffic Pattern Alts.*
Lake Charles, La.	15, 22	Right hand tfc pattern. 1000' slow acft pattern: 1500' turbine powered fixed-wing acft.	
●Midland Airpark, Tex.	25, 29, 34	Right hand tfc pattern.	
New York, LaGuardia	13	Rgt turn and proceed over Flushing Meadow Park before turning on course.	1500'
Oklahoma City, Wiley Post Post Arpt., Okla.	12	Acft shall proceed on rnwy heading until reaching 500' or until passing the arpt bndry before beginning a turn to the right.	lgt acft 800' AGL hvy acft 1200' AGL.
	17	Acft shall proceed on rnwy heading until reaching 500' or until pasing the arpt bndry before beginning a turn to the right.	
	21	Acft shall proceed on rnwy heading until reaching 500' or until passing the arpt bndry before beginning a turn to the right.	
San Antonio, Tex., Stinson Arpt	9, 14, 22	Right hand tfc pattern. 800' AGL light or slow acft. 1500' AGL, heavy or fast acft.	
Sherman Mun., Texas	16	Left turn after takeoff.	800' AGL
	34	Right turn after takeoff.	
Torrance Mun., Calif.	11L	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 45 degrees from the runway departure heading and continue climb.	
	11L	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Crenshaw Boulevard, turn left 90 degrees to the departure runway heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the right of the cross wing leg course.	
	11R	All aircraft—Climb on departure rnwy heading to 1500'.	
	29R	Large aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 45 degrees from the runway departure heading and continue climb.	
	29R	Light aircraft—Upon reaching an altitude of 500 feet MSL but not prior to reaching Hawthorne Boulevard, turn right 90 degrees to runway departure heading (cross wind leg), thence depart the traffic pattern climbing 45 degrees to the left of the cross wind leg course.	
	29L	All aircraft—Upon reaching an altitude of of 500 feet MSL, make left turn from the departure runway heading to intercept an area approximately over the Pacific Coast Highway, then proceed in a westerly direction until reaching 1,500 feet MSL or the shoreline.	
Wilkes-Barre Scranton, Avoca, Pa.	16, 22	Right hand tfc pattern.	
Winona, Minn., Max Conrad Fld		Right tfc NW.	

LAKE, ISLAND AND MOUNTAIN REPORTING SERVICE
Flight Service Station (FSS)

This service provides flight monitoring where regularly traveled VFR routes cross large bodies of water, swamps, and mountains, for the purpose of expeditiously alerting Search and Rescue facilities when required.

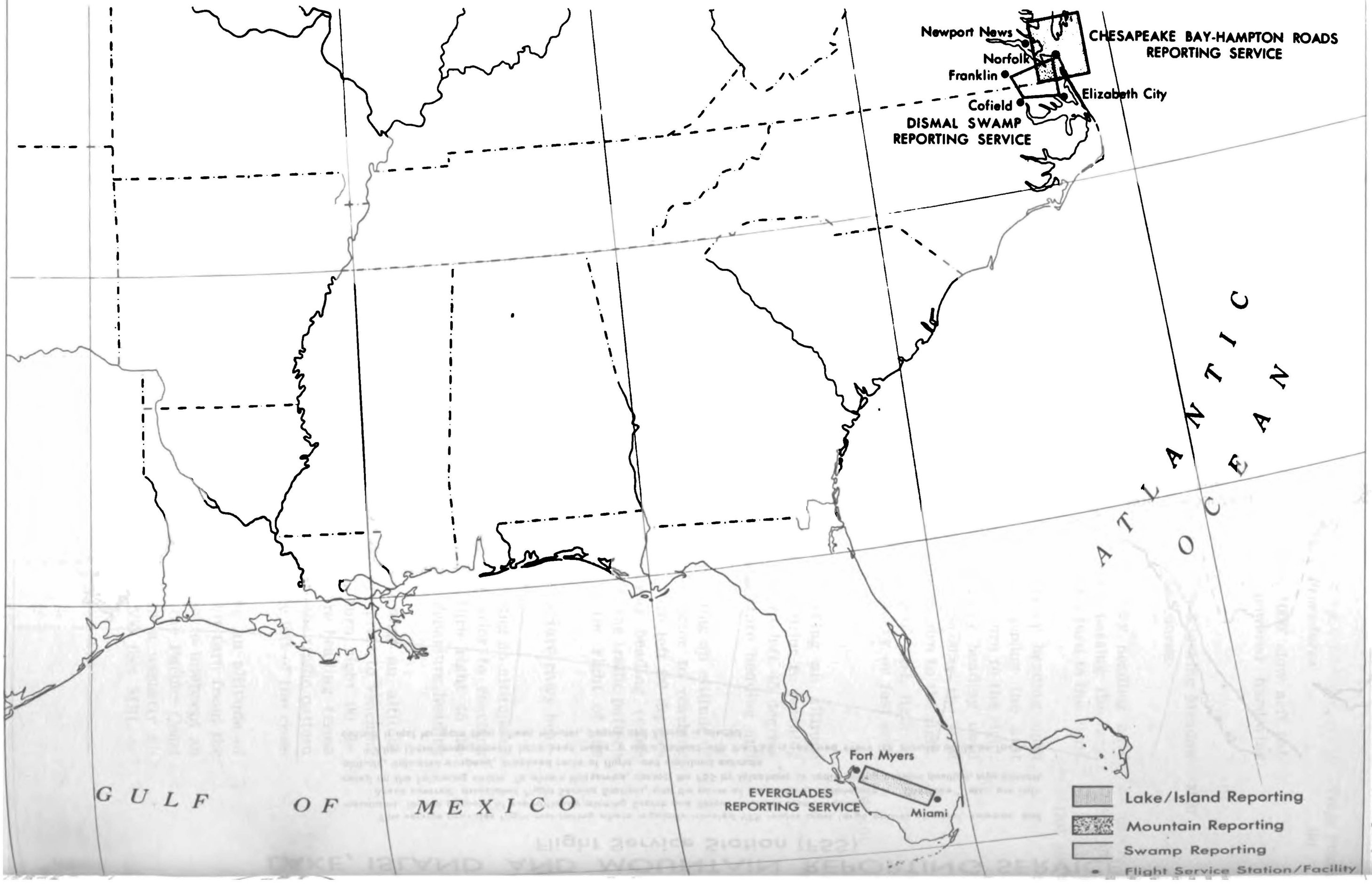
Areas covered, associated Flight Service Stations, and the name of the service, "Stoneface", "Overlake", etc., are indicated on the following charts. To obtain this service, contact the FSS by telephone or radio giving present position, type aircraft, altitude, indicated airspeed, proposed route of flight, and mainland estimate.

After these arrangements have been made, a radio contact with the FSS is required every ten minutes while en route. If contact is lost for more than fifteen minutes, Search and Rescue is alerted.



LAKE, ISLAND AND MOUNTAIN REPORTING SERVICE

Flight Service Station (FSS)



ROCKY MOUNTAIN REPORTING SERVICE

This service is available to aircraft operating VFR (with or without flight plan) between Denver and Grand Junction via Corona Pass or Monarch Pass. This service can not be offered on an area or random route basis due to the unreliability of communications caused by terrain extremes. The routes via Corona Pass and Monarch Pass have been flight checked and communications found reliable at the altitudes published on the chart.

"Rocky Mountain Reporting Service" shall be available to all VFR aircraft upon request, whether or not operating on a regular flight plan.

REQUIREMENTS

1. Aircraft must be equipped with functioning 2-way radio capable of receiving VOR and transmitting 122.1mc.
2. Pilot must fly prescribed route at an altitude no less than established MRA (Minimum Reception Altitude).
3. Pilot must arrange for accurate time of departure to be received by the FAA facility through which the service was requested.
4. Pilot must radio a position report every ten minutes as follows, whether eastbound or westbound:

   CORONA ROUTE

   To Denver Radio while operating between Denver and Corona Pass (vicinity of Moffat Tunnel, west of Tolland, Colorado).

   To Eagle Radio (through Kremmling VOR) between Corona Pass and vicinity of Glenwood Springs.

   To Grand Junction Radio between vicinity of Glenwood Springs and Grand Junction.

   MONARCH ROUTE

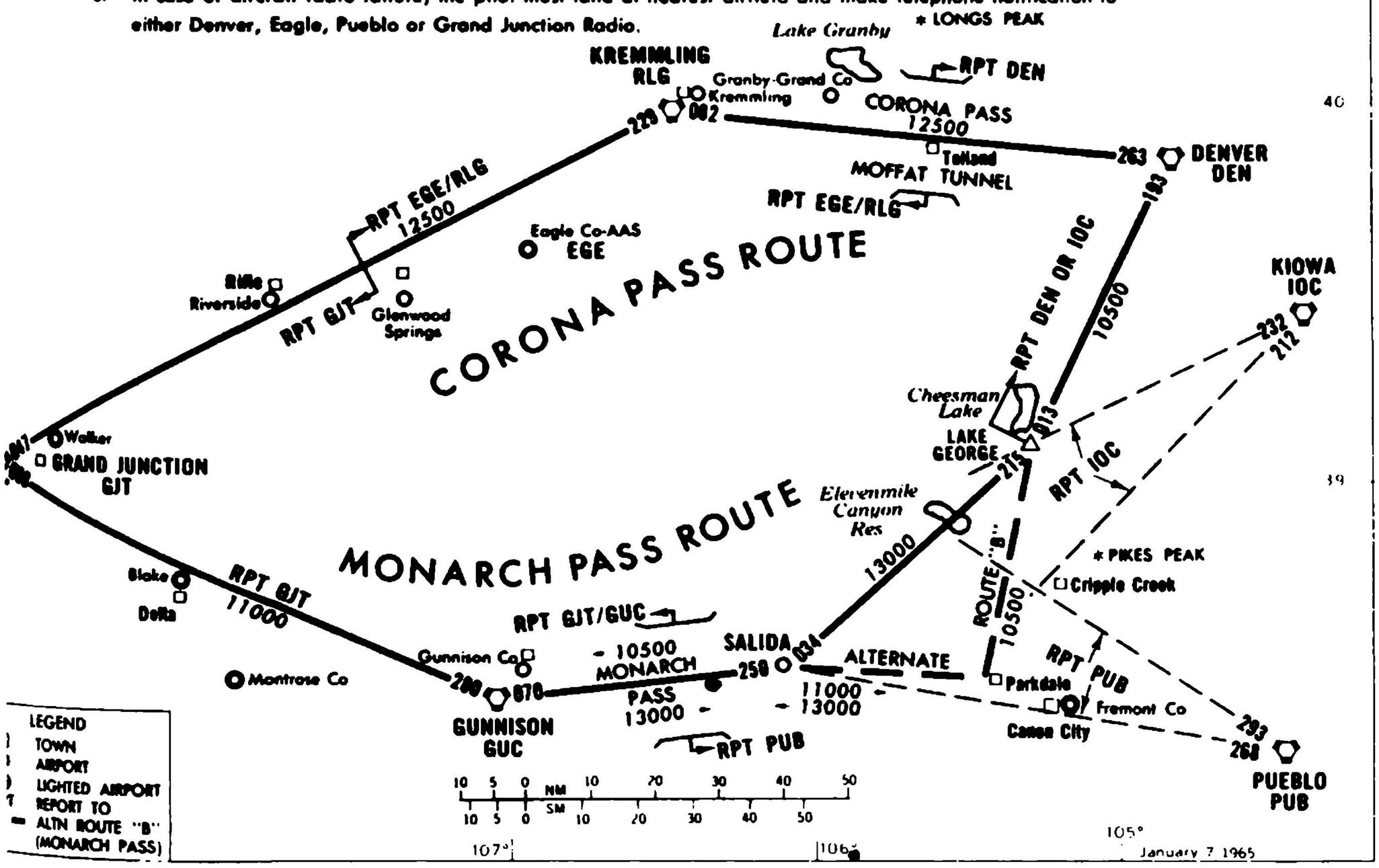
   To Denver Radio (through Denver or Kiowa VOR) between Denver and Lake George Intersection (Cheesman Reservoir). To Denver Radio (through Kiowa VOR only) between the intersection and Elevenmile Reservoir, or west of Cripple Creek, Colorado.

   To Pueblo Radio between Elevenmile Reservoir or west of Cripple Creek and Salida, Colorado.

   To Grand Junction Radio (through Gunnison VOR) between Salida and Grand Junction.

   Pilots may file for all or any portion of either route, i.e. on a flight from Denver to Grand Junction, a pilot may request the service from Denver to Kremmling only.

   (If contact with the aircraft is lost for more than 15 minutes, Search and Rescue will be alerted.)
5. The service may be terminated at any time upon request of the pilot.
6. In case of aircraft radio failure, the pilot must land at nearest airfield and make telephone notification to either Denver, Eagle, Pueblo or Grand Junction Radio.



SPECIAL NOTICES

Special Notices of a general nature or universal application, and other than for a specific geographical location, are grouped together under General Notices. Special Notices pertinent to a specific geographic area are grouped together under Area Notices by state, then city, airport, or location within the state. The month and year the notice is initially inserted into the manual is provided at the conclusion of each Special Notice. A solid dot ● prefixes new or revised Special Notices.

GENERAL NOTICES

MILITARY CLIMB CORRIDORS

ALL FLIGHTS desiring to traverse these areas must obtain prior approval from the Appropriate Authority and maintain continuous listening watch on the appropriate frequency while traversing the corridor. The list of corridor appropriate authority and frequencies follows:

Corridors	Appropriate Authority	Frequencies
Bangor (Dow AFB) Maine	Dow AFB Apch Ctl	126.2; 363.8; 122.5G
Charleston AFB/Mun., S.C.	Charleston Apch Ctl	119.3; 319.8; 122.5G
Columbus (Lockbourne AFB), Ohio	Columbus Apch Ctl	123.7; 122.5G; 360.6
Falmouth (Otis AFB), Mass.	Otis RAPCON	124.7; 118.2; 122.5G
Glasgow (Glasgow AFB), Mont.	Glasgow AFB Apch Ctl	126.2; 236.6; 122.5G; 363.8
Goldsboro (Seymour Johnson AFB), N.C.	Seymour Johnson Apch Ctl	119.7; 122.5G
Grand Forks (Grand Forks AFB), N.D.	Grand Forks AFB Apch Ctl	118.1; 363.8; 122.5G
Grandview (Richards-Gebaur AFB), Mo.	Olathe RAPCON	363.8; 124.7; 122.5G
Hampton Roads (Langley AFB), Va.	Norfolk Apch Ctl	350.3; 125.7; 122.5G
Houston (Ellington AFB), Texas	Houston Apch Ctl	118.1; 284.6; 122.5G
Limestone (Loring AFB), Me.	Loring AFB Apch Ctl	122.5G; 363.8
Madison (Truax Fld), Wisc.	Truax Tower	120.1; 350.3; 122.5G
Marquette Co. (K.I. Sawyer AFB), Mich.	Sawyer Apch Ctl	122.5G; 119.1; 259.3; 363.8
Merced (Castle AFB), Calif.	Castle AFB Apch Ctl	118.9; 122.5G; 379.4
Minot AFB, North Dakota	Minot AFB Apch Ctl	363.8; 118.5; 122.5G
Mt. Clemens (Selfridge AFB), Mich.	Selfridge AFB Apch Ctl	126.2; 363.8; 122.5G
New Orleans (NAS New Orleans), La.	New Orleans Center—5000′ & above, IFR	126.0; 323.2
	New Orleans Apch Ctl—VFR	118.1; 122.7G; 248.7
Oscoda (Wurtsmith AFB), Mich.	Wurtsmith AFB Apch tl	126.2; 122.5G
Oxnard AFB, Calif.	Ventura Apch Ctl	124.7; 319.2; 122.5G
Rome (Griffiss AFB), New York	Griffiss Apch Ctl	118.5; 363.8; 122.5G
San Antonio (Kelly AFB), Tex.	San Antonio Apch Ctl	122.5G; 123.9; 126.5; 134.1; 353.5
San Rafael (Hamilton AFB), Calif.	Hamilton AFB Apch Ctl	122.5G; 126.2
Sault Ste. Marie (Kincheloe AFB), Mich.	Kincheloe Apch Ctl	118.3; 122.5G; 363.8
Victorville (George AFB), Calif.	Edwards Apch Ctl	124.4; 127.1; 137.65; 335.6; 122.5G
Westhampton Beach (Suffolk AFB), N.Y.	Suffolk Apch Ctl	126.2; 122.5G; 236.6
Wrightstown (McGuire AFB), N.J.	McGuire Apch Ctl	122.5G; 110.6T; 134.1; 126.2

T—Transmits
G—Guards

●

CIVIL USE OF MILITARY FIELDS:

U.S. Air Force, Navy and Coast Guard Fields are open o civil fliers only in emergency or with prior permission; rmy Air Fields are open to civil aircraft on authorizaion of the Air Field Commander.

For Air Force installations, prior permission should e requested at least 30 days prior to first intended land-g from Headquarters USAF (AFOAPDA) via the Commanding Officer of the field concerned (who has auority to approve landing rights for certain categories f civil aircraft). For use of more than one Air Force stallation, requests should be forwarded direct to Hq SAF (AFOAPDA), Washington, D.C. 20330.

For Naval Installations, prior permission should be requested from the Chief of Naval Operations (OP 532) ia the Commanding Officer of the field concerned (who as the authority to approve landing rights for certain ategories of civil aircraft).

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the ommanding Officer of the field.

However, with minor exceptions, authority to use Air orce and Navy fields is granted only to aircraft on overnment business, or when no suitable civil airport is ailable in the vicinity. Use of Coast Guard fields is mited to persons on government business only when ere is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil rcraft at military airports, they shall be conducted in cordance with the procedures and minimums approved the military agency having jurisdiction over the airort.

December 1964

SELECTIVE CALLING SYSTEM (SELCAL) FACILITIES AVAILABLE

Location	*Operating Agency*	*HF*	*VHF*
nchorage	FAA	×	
alboa	FAA	×	
old Bay	FAA	×	
allas	BNF	×	
uam	FAA	×	
onolulu	ARINC	×	×
iami	ARINC	×	×
ew York	ARINC	×	×
ew Orleans	ARINC	×	×
kinawa	ARINC	×	×
ago Pago	FAA	×	
oint Barrow	WEN	×	
an Francisco	ARINC	×	×
hemya	FAA	×	
an Juan	ARINC	×	×
eattle	ARINC	×	×
ake Island	FAA	×	

December 1964

HEAVY TRAFFIC AROUND MILITARY FIELDS

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating within a 25 nautical mile radius and from the surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE!

December 1964

FLIGHTS ACROSS U.S. BORDERS:

All pilots contemplating flights across U.S. borders should refer to complete regulations in INTERNATIONAL FLIGHT INFORMATION MANUAL, Volume 12, April 1964. Pilots must report for inspection at time of each entry to avoid inconveniences, additional expenses and penalties.

December 1964

HELP PREVENT SMUGGLING BY AIR

All American pilots are asked to help Federal law enforcement agencies in combating the smuggling of illegal aliens and contraband into the U.S. by private aircraft. If you have information of any kind that might relate to smuggling by air, please contact the nearest U.S. Immigration and Naturalization Service or U.S. Bureau of Customs office at once. The local FAA office will pass the information along for you, if you so desire. Awards for original information are paid by Customs under certain circumstances.

December 1964

•AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

Automatic Terminal Information Service (ATIS) is the continuous broadcast of recorded noncontrol information in selected high activity terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information.

ATIS is now available at high activity terminal airports listed at the end of this Notice. Information such as ceiling, visibility, wind, altimeter, instrument approach, and runways in use is continuously broadcast on the voice feature of a TVOR/VOR/VORTAC located on or near the airport, or on a discrete VHF tower frequency. Pilots of aircraft arriving or departing the terminal area can receive the continuous ATIS broadcasts at times when cockpit duties are least pressing and listen to as many repeats as desired.

Sample Broadcast:

"THIS IS WASHINGTON NATIONAL AIRPORT INFORMATION BRAVO. CEILING MEASURED TWO THOUSAND, OVERCAST, VISIBILITY SIX, SMOKE. WIND ONE SIX ZERO DEGREES AT FIVE. ALTIMETER TWO NINER NINER TWO. VOR RUNWAY ONE FIVE APPROACH IN USE.

LANDING RUNWAY ONE EIGHT. DEPARTURES ON RUNWAY ONE FIVE. NOTAM, GEORGETOWN RADIO BEACON OUT OF SERVICE. INFORM WASHINGTON APPROACH OR GROUND CONTROL ON INITIAL CONTACT THAT YOU HAVE RECEIVED INFORMATION BRAVO."

Pilots hearing the ATIS broadcast should, on initial contact with the tower or approach control, repeat the specific phonetic alphabet code word (Alpha, Bravo, Charlie, etc.) appended to each ATIS message. This will indicate that the pilot has received the latest information and obviate the need for the controller to repeat the information.

Example: ". . . I HAVE RECEIVED INFORMATION BRAVO."

ATIS broadcasts will be updated when there is a significant change in information contained therein. Terminal controllers will issue pertinent information to pilots who do not acknowledge receipt of the ATIS message, or who acknowledge receipt by an alphabet code word which is not current.

Pilots are urged to cooperate in the ATIS program since it relieves frequency congestion on approach control, ground control and local control freqeuncies.

ATIS Locations

Airport Location	*Voice Facility*	*ATIS Frequency*	*Information Broadcast*	*Hours L.S.T.*
Atlanta	REX VOR	111.8 mc	Arrival/ Departure	0800–2000
Chicago O'Hare	Discrete VHF	124.2 mc	Arrival/ Departure	0000–2400
	ORD VORTAC	113.9 mc		
●Dallas-Ft. Worth	Discrete VHF	120.7 mc	Arrival/ Departure	0000–2400
●Houston	Discrete VHF	127.6 mc	Arrival/ Departure	0000–2400
●Miami	MIA VORTAC	115.9 mc	Arrival/ Departure	0000–2400
New York Kennedy	JFK VORTAC	115.9 mc	Departure	0000–2400
	DPK VORTAC	111.2 mc	Arrival	0000–2400
	COL VORTAC	108.2 mc	Arrival	0000–2400
San Francisco	SFO LVOR	111.2 mc	Arrival/ Departure	0000–2400
Van Nuys	VOT	109.0 mc	Arrival/	0000–2400
			Departure	0000–2400

April 1965

SPECIAL CIVIL AIR REGULATION NO. 456

Effective immediately the provisions applicable under Special Civil Air Regulation No. 456 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that flight be conducted on one of the following routes and a landing be made at Kennedy International Airport. In the event alternates are necessary due to weather, such alternates will be Logan International Airport and Dulles International Airport in that order.

Flights from Montreal to Kennedy below FL 180 will be routed via V–282, V–203, V–91, V–475, DPK. Those at FL 180 and above will be routed via St. Eustache V–91, PLB, J–75, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Montreal below FL 180 will be routed via Sound Intersection, POU, V–487. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–75, PLB, V–91, St. Eustache.

Flights from Ottawa to Kennedy below FL 180 will be routed via MSS, V–203, ALB, V–91, V–475, DPK. Those at FL 180 and above will be routed via G–1 Maxville, V–104, MSS, J–37, ALB, POU, V–91, V–475, DPK. Flights from Kennedy to Ottawa below FL 180 will be routed via Sound Intersection, POU, V–91, ALB, V–203, MSS. Those at FL 180 and above will be routed via Sound Intersection, POU, ALB, J–37, MSS, V–104, Maxville, G–1.

Flights from Toronto to Kennedy below FL 180 will be routed via V–36S, V–252, BGM, V–270, V–34, V–475, DPK. Those at FL 180 and above will be routed via V–36S, BUF, J–95, HUO, CMK, V–34, V–475, DPK. Flights from Kennedy to Toronto below FL 180 will be routed via HUO, V–126, AVP, V–36. Those at FL 180 and above will be routed via Northport Intersection, HUO, J–95, BUF, V–36.

All flights in both directions, between Kennedy and Cuba will be routed via the Tuna Intersection and the overwater Papa Route. These are the only routes which will be authorized. Reroutings which will traverse other U.S. airspace will not be authorized.

The procedures set forth herein will not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service. However, if circumstances subsequently warrant, a notam prescribing routes for such aircraft will be issued.

December 1964

Exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations

The Department of the Air Force has been issued an exemption from the provisions of Section 91.109 of Part 91 of the Federal Aviation Regulations to conduct certain Radar Bomb Scoring (RBS) training missions at or above Flight Level 300 within 75 nautical miles of the sites listed below. A navigation aid will be listed to define the center of the complex if such an aid is so located. If a NAVAID is not located at the center, the center will be defined by bearing/distance from a High Altitude Navigation Aid.

The NIKE/RBS Complexes used are:

Providence 280°/35NM
Windsor VORTAC
Presque Isle 087°/20NM
Kennedy VORTAC
Boston VORTAC
Rapid City 110°/33NM
Dupree VORTAC 010°/114NM
Syracuse VOR 018°/48NM

PILOT-TO-FORECASTER WEATHER SERVICE

Pilot-to-Forecaster Service (PTFS) in the general area the Washington ARTCC is provided for the purpose the direct pilot/forecaster exchange of meteorological formation when weather conditions are critical, changing pidly or when the direct advice of a professional aviation eteorologist is considered necessary. Routine requests for eather information or pilot reports should be directed the nearest FAA Flight Service Station (FSS).

PTFS is available on the radio frequency of 122.6 egacycles (mc) within communications range of the llowing FAA FSS locations:

Washington, D.C.
Elkins, West Virginia
Richmond, Virginia
Roanoke, Virginia
Front Royal, Virginia
Rocky Mount, North Carolina

Air/ground calls should be made to "Washington Forester" for direct communications with a U.S. Weather ureau Meteorologist who is currently familiar with ather in the area. This service is available from 1200Z 0200Z (7:00 a.m. to 9:00 p.m., EST). Emergency ather service during other periods may be made ailable by contacting the flight service specialist hen VFR) or the Washington ARTCC (when IFR) d requesting that "Washington Forecaster" communite on 122.6 mcs.

December 1964

•MEA, MCA, MOCA, MRA, MAA

Efctv immediately the MOCA for V–205, V–159W, tL to Center Hill Int, Fla. is 1900 ft. vice 1700 ft, and e MOCA for V–152 N, PIE ORL is 1900 ft vice 1700 ft.

March 1965

VFR PRACTICE INSTRUMENT APPROACH PROCEDURES

VFR practice instrument approach procedures at the lowing locations are published for and used by USAF r Training Command pilots:

Cotulla, Tex.	Radio Beacon	JAL–907–ADF
Draughon-Miller Arpt. Temple, Tex	VOR	JAL–809–VOR
Cotulla, Tex.	VOR	JAL–907–VOR
Howard County Arpt. Big Spring, Tex.	VOR	JAL–5019–VOR
Killeen, Tex. Hood AAF	VOR	JAL–5031–VOR
Rock Springs, Tex.	VOR	JAL–111–VOR–3
Sequin AF Aux., Tex.	Beacon	AL–5223–ADF
Vance AFB, Woodring, Okla.	VOR	JAL–135–VOR–3

These approach charts are published by the USAF Aeronautical Chart and Information Center in a loose-leaf format. Civil aviation requests for these charts should be submitted to the Director, Coast and Geodetic Survey, 14th and Constitution Avenue, N.W., Attention: Distribution Division Washington, D.C. 20230.

December 1964

SPECIAL CIVIL AIR REGULATION NO. SR 454A

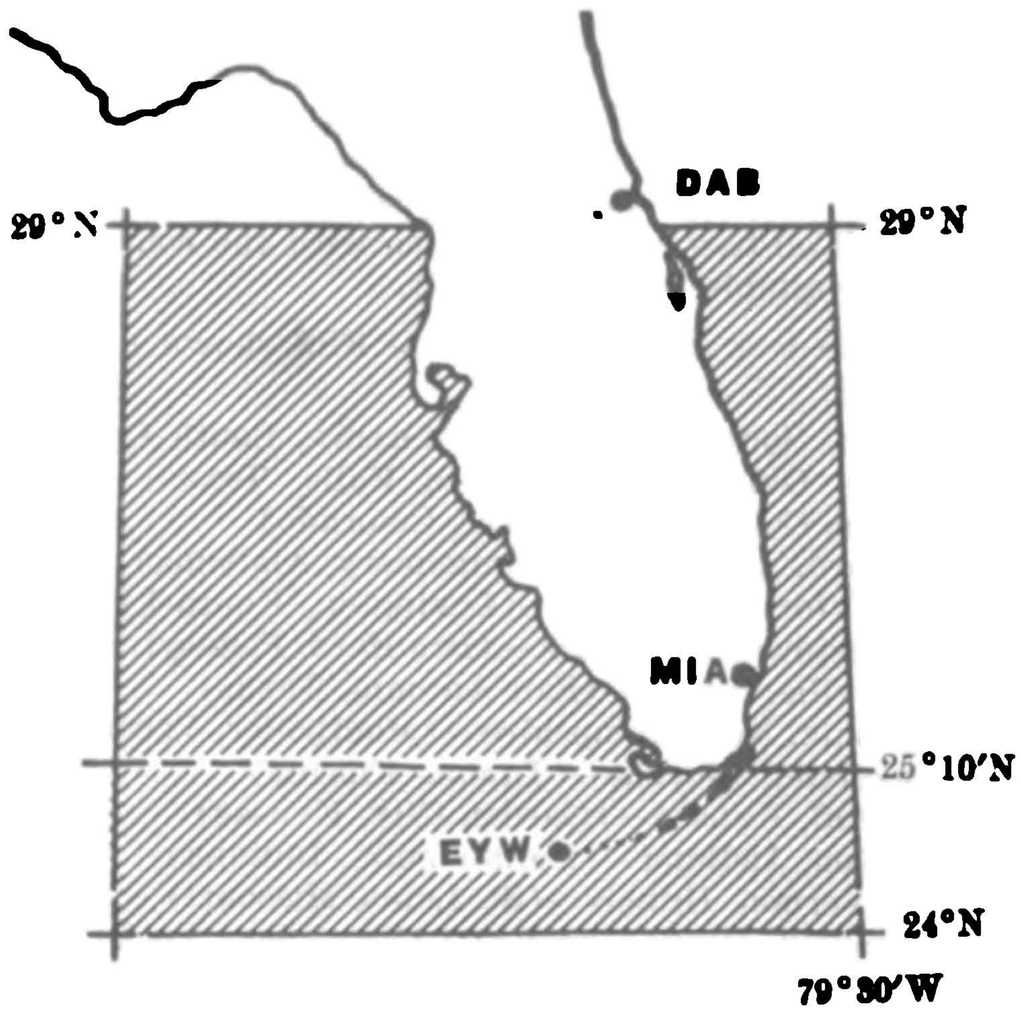
The following special rules of SR 454A are in effect. No person may operate any civil aircraft:

(1) Over water and outside the land mass of the State of Florida beginning at 29°N lat., 85°W long., thence clockwise to 29°N lat., 79°30′W long. to 24°N lat., 79°30′ W long., to 24°N lat., 85°W long., to the point of beginning or over land South of 25°10′N lat., unless:

• (a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) the aircraft possesses functioning navigation and communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

SR 454A is applicable to the land mass between 25°10′N and 29°00′N whenever activated by NOTAM.



•LOCATION IDENTIFIERS

The following changes affect the use of the location identifiers ATP–7350.1 G:

ACY --- Atlantic City, N.J. NAFEC/Atlantic City Airport (Pomona) (correction)

AIY --- Atlantic City, N.J. Municipal Airport (Bader Field) (correction)

April 1965

New Flight Assistance Service Facility Tests

The FAA is testing a modernized FSS configuration by field test of two new types of low cost facilities for flight assistance service at local airports. The tests will extend through June 30, 1965.

Flight Service Facility (FSF): An FSF is operated by FAA flight service specialists during the busy hours of each day. It is equipped with transmit/receive on 121.7 mcs. for airport advisory service and 121.5 mcs. for emergency communications; weather observing instruments; weather teletypewriters; and communications into the ATC system. FSFs provide airport advisory service (on request); aviation weather observations; pilot briefing; and flight plan handling. Toll-free Communications with the control FSS will be available 24-hours daily. During the hours the FSF is operating, pilots landing or departing the FSF airport may contact the FSF for airport advisory service when within 15 nautical miles. Call and listen on 121.7 mcs. Use the name of the FSF airport followed by the word "radio": "Kimble Radio this is N1234V over."

The location of test FSF with control FSS in parenthesis and local hours of FSF operation are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600–1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600–1800.
Manhattan Municipal Airport, Manhattan, Kansas (Salina FSS) 0600–1800.
Crescent Beach Airport, Myrtle Beach, S. C. (Florence FSS) 0600–1800.

Airport Information Desk (AID): An AID is an unmanned facility designed for pilot self-service briefing, flight planning and filing of flight plans. A desk and flight planning material will be available at all AID locations, usually during daylight hours. In addition, some AIDs will have weather instruments and weather teletypewriters. Toll-free communications with the control FSS will be available 24 hours daily.

The AID test sites with control FSS shown in parenthesis are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky CS/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Montpelier, Vermont)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

Pilots are invited to use and evaluate these services. Comments and suggestions should be sent to:

Director, Air Traffic Service
Federal Aviation Agency
800 Independence Avenue, S.W.
Washington, D.C. 20553

February 1965

● PART–TIME CONTROLLED AIRSPACE DESIGNATION SUBJECT TO IRREGULAR EFFECTIVE HOURS/DATES

Control Zones

CALIFORNIA

Riverside Mun Arpt: 0500–2130. Contact March Apch Ctl prior conducting IFR flight operns in the Riverside control zone.

Visalia Mun Arpt: 0700–2100. Contact Fresno Apch Ctl prior to conducting IFR flight operns in the control zone.

ILLINOIS

●**Bloomington:** Efctv Apr 29, 1965. 0600–2000.

IOWA

●**Fort Dodge:** 0700–2200 local time daily.

KANSAS

Liberal Mun Arpt: 0700–2000 daily.

MICHIGAN

Alpena: 0800–2000 daily.
Benton Harbor: 0730–2230.
Menominee: 0700–2030 daily.

MINNESOTA

Bemidji: 0730–2000.
Brainard: 0800–1900.
St. Paul Downtown Holman Fld): 0600–2200.
Worthington: 0700–1830.

NEBRASKA

Alliance: 0700–2100 Sun-Fri; 0700–1800 Sat.
Hastings: 0600–2100 daily.
Kearney: 0700–2200 daily.
Norfolk: 0730–2000 daily.

OKLAHOMA

●**Enid:** 0700–1800 Mon thru Thurs; 0700–2200 Fri; 0600–1600 Sat; 1200–1800 Sun. Not designated on holidays

TEXAS

Borger: 1230–2230 daily; Sats 0630–1630.
Del Rio: Efctv 0001E Apr 29, 1965. 0600–1800 Mon thru Thurs; 0600–2300 Fri; 0800–1600 Sat; 1200–1800 Sun
Killeen: 0700–2230, Mon thru Fri and 0700–1600 Sat, Sun and federal legal holidays.
Lubbock (Reese AFB): Efctv May 27, 1965. 0630–1900 Mon thru Thurs; 0630–2300 Fri; 0800–1600 Sat; 1200–1800 Sun

WISCONSIN

Camp Douglas: 0745–1630 daily.
Janesville: Sun thru Fri 0700–2330 and Sat from 0700–2000.

Transition Areas

MICHIGAN

Alpena: 0800–2000 daily.

Control Areas Extensions

WISCONSIN

Camp Douglas: 0745–1630 daily.

April 1965

•FOUR DIGIT BEACON CODE DESIGNATION

Effective April 1, 1965, ATC facilities will use FOUR-GIT beacon code designation in operation and ad-nistrative ATC application; e.g., code 10 becomes 10, code 21 becomes 2100, code 23 becomes 2300, etc. In today's air traffic control, aircraft are equipped with e of two basic types of airborne transponders having ferent select code capability on Mode A 3. One type s a 64 select code capability, using a combination of o digits; the other has a 4096 select code capability, ng a combination of four digits. The operational ference between a 4096 select code transponder and 64 select code transponder is that the 64 select code nsponder transmits only two front digits of the 4096 le scale; e.g., 00 of 0000, 11 of 1100, 21 of 2132, 31 of 30, etc.

To provide a standard means for ATC to utilize one a combination of the 4096 discrete codes, including 64 basic select codes, FOUR DIGIT CODE DESIG-TION will be used, e.g., code 2100 would be expressed TWO ONE ZERO ZERO.

NOTE: Pilots of a 64 select code transponder equipped aircraft should disregard the last two numerals of the numbered code issued by ATC, e.g., if assigned code 2100, set in numerals 21.

Additionally, to facilitate handling of flight data, the er suffix indicating aircraft transponder and/or DME ipment will be associated with the type of aircraft ead of aircraft identification.

t is most important that pilots, when filing a IFR ht plan for flight in an aircraft equipped with a radar con transponder (no code, 64 code, or 4096 code), E equipment, or a combination of both, identify ipment capability by adding a suffix to the AIR-AFT TYPE preceded by a slant, as follows:

/X (Transponder, no code)
/T (Transponder, with 64 code capability)
/U (Transponder, with 4096 code capability)
/D (DME)
/L (DME and transponder, no code)
/B (DME and transponder, with 64 code capability)
/A (DME and transponder, with 4096 code capability)

NOTE: The suffix is not to be added to the aircraft identification or be transmitted by radio as part of the aircraft identification.

March 1965

•CLEAR AIR TURBULENCE (CAT)

Clear air turbulence (CAT) has become a very serious operational factor to flight operations at all levels and especially to jet traffic flying in excess of 18,000 feet. The best available information on this phenomena must come from pilots via the PIREPS procedures. All pilots encountering CAT conditions are urgently requested to report *time*, *location* and *nature* (moderate, severe or extreme) of the element to the FAA facility with whom they are maintaining radio contact. If time and conditions permit, elements should be reported according to the standards for other PIREPS and position reports. For consistent identification of the degree of turbulence, U.S. Standard Turbulence Criteria Table states:

Light—Loose objects in aircraft remain at rest.

Moderate—Seat-belts required. Unsecured objects move about.

Severe—Occupants thrown violently against seat-belts. Momentary loss of aircraft control. Unsecured objects tossed about.

Extreme—Aircraft is violently tossed about, impossible to control. May cause structural damage.

April 1965

Washington DISTRICT OF COLUMBIA

TEST EVALUATION OF VFR ARRIVAL AND DEPARTURE RADAR TRAFFIC INFORMATION SERVICE

VFR Radar Traffic Information Area

GENERAL PROCEDURES: The Washington VFR Radar Traffic Information Area is that airspace which extends upwards to an altitude of four thousand feet, MSL inclusive, and is encompassed by a line connecting the following points: Rockville, Laurel, Shadyside, Hughesvill, Indian Head, Centreville, and Herndon. (See chart on facing page.)

Pilots of aircraft without radio, as well as those unable to contact VFR Arrival or Departure Information Service on assigned frequencies, are urged to conform to routing via designated VFR arrival and departure routes.

Pilots operating VFR flights destined for Washington National Airport should follow the designated arrival and departure routes listed herein in order to maintain a safe, orderly flow of air traffic in the Washington area.

All aircraft arriving or departing Washington National Airport should proceed with caution when in the vicinity of Andrews AFB.

If destination is other than Washington National Airport, so advise.

THE RADAR SERVICE DESCRIBED HEREIN IS NOT INTENDED TO RELIEVE THE PILOT OF HIS RESPONSIBILITY FOR CONTINUAL VIGILANCE TO SEE AND AVOID OTHER AIRCRAFT. IT IS PROVIDED TO AID HIM IN HIS VISUAL SURVEILLANCE BY CALLING TO HIS ATTENTION PERTINENT TRAFFIC. PILOTS ARE REMINDED THAT THE SURVEILLANCE RADAR UTILIZED BY THE CONTROLLER DOES NOT PROVIDE ALTITUDE INFORMATION.

The following procedures should be adhered to by pilots of VFR flights desiring this service and having proper radio equipment when arriving at and departing from Washington National Airport.

ARRIVAL PROCEDURES: Arriving VFR flights desiring traffic information should contact Washington Traffic Information Service on 119.3 mcs/338.2 mcs UHF when approaching from Laurel, Shadyside RBN, and Hughesville; or on 120.1 mcs/306.3 mcs UHF when approaching from Indian Head, Centreville, Herndon, and Rockville. When practicable, pilots should follow the appropriate VFR arrival route as indicated (See Chart) and maintain listening watch on traffic information frequency until further advised. Landing information will be furnished to aircraft destined for Washington, and radar traffic information will be provided until the pilot is advisesd to contact the tower.

DEPARTURE PROCEDURES: VFR flights departing from Washington Airport desiring traffic information should request the service on initial contact to Ground Control. The pilot should also advise his proposed direction of flight; e.g., "VFR Information Service, Laurel." Following take-off, the tower will advise the pilot when to contact Washington Information Service and the frequency to be used. Flights proceeding to Laurel, Shadyside, and Hughesville will use 119.3 mcs/338.2 mcs UHF. Flights proceeding to Indian Head, Centreville, Herndon, and Rockville will use 120.1 mcs/306.3 mcs UHF. Pilots should depart the Washington Terminal area via the designated VFR departure route most nearly aligned with their destination. They should also maintain listening watch on the appropriate information service frequency until cleared to leave the frequency or beyond the perimeter fix.

Washington National Airport

Arrival Routes

Northeast—Report Laurel. Proceed well right of Washington-Baltimore Parkway to Beltsville, then north of Washington to Chain Bridge.

East—Report Shadyside RBN. Proceed via Brandywine to Fort Washington. Caution—Military conventional and jet traffic vicinity of Andrews AFB Control Zone.

Southeast—Report Hughesville. Proceed via Waldor to Fort Washington. Caution—Andrews jet penetration inbound on Andrews VOR 187 degree radial descending to cross Andrews LFR at 1500 feet MSL.

Southwest—Report Indian Head. Proceed on right side of Potomac River until past Mount Vernon.

West—Report Centreville. Proceed well right of U.S. Route 29 highway to Falls Church.

Northwest—Report Herndon. Proceed well right of Potomac River to Falls Church.

North—Report Rockville. Proceed well left of Potomac River to Chain Bridge.

Departure Routes

Northeast—Proceed via west bank of Anacostia River to Riverdale and well right of Washington-Baltimore Parkway until past Beltsville Airport.

East—Proceed via Fort Washington and Brandywine to Shadyside.

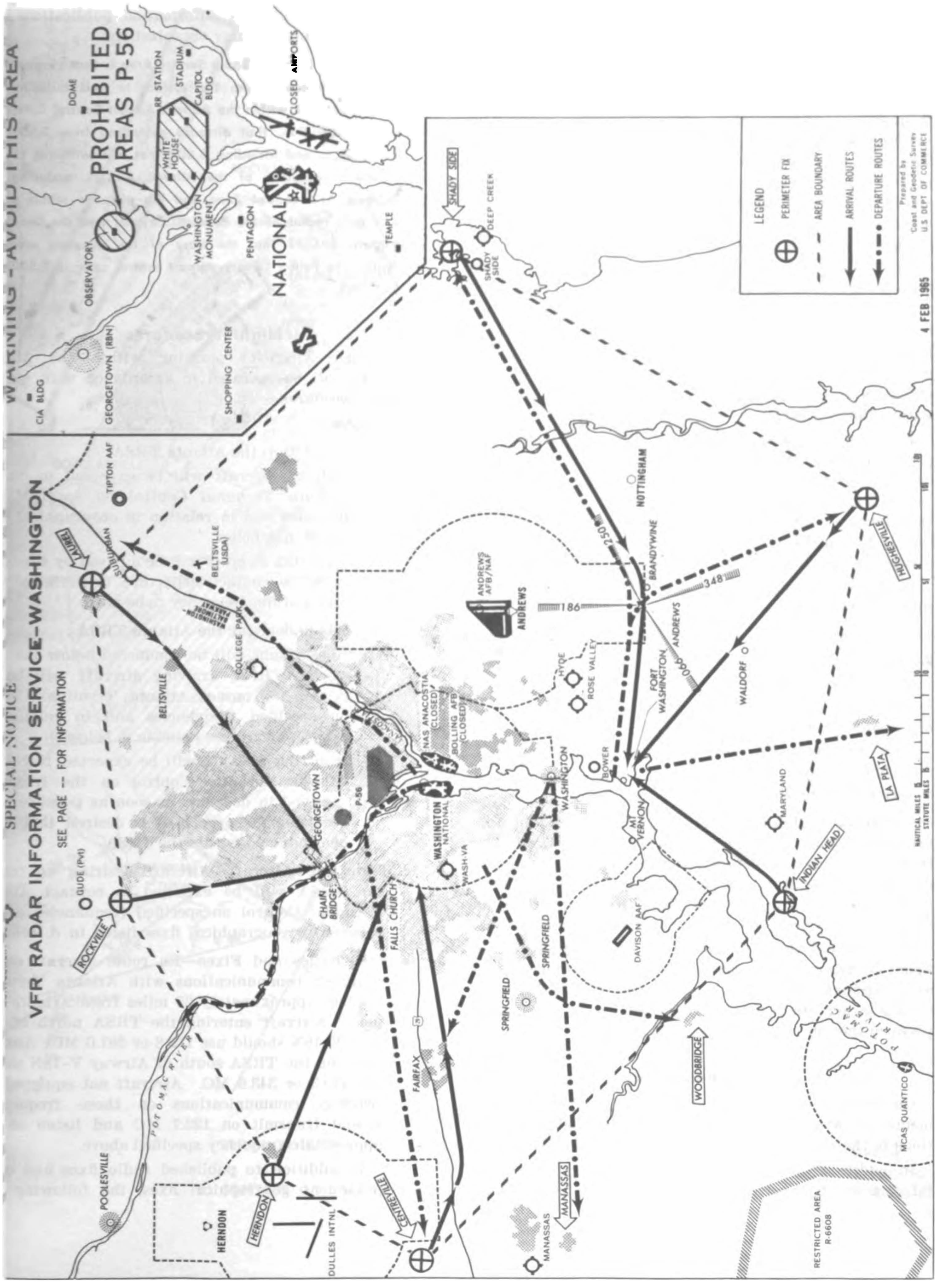
Southeast—Proceed via Fort Washington and LaPlata.

Southwest—Proceed well right of Potomac River until past Woodbridge.

West—North departures proceed well right of U.S. Route 29 highway until past Centreville. South departures proceed via Washington LFR to Manassas.

Northwest—North departures proceed via Potomac River until leaving the area. South departures proceed via Washington LFR to Fairfax.

•DISTRICT OF COLUMBIA



Atlanta GEORGIA

TERMINAL RADAR SERVICE AREA

(An Evaluation of Terminal Area Positive Separation)

The Air Traffic Service, FAA, has developed a program to evaluate a concept of providing a positive separation service to aircraft operating within a terminal area. The airspace area where this evaluation will be conducted will be known as a Terminal Radar Service Area (TRSA). During the evaluation period, a true positive separation environment will not be guaranteed.

This program is in consonance with the report of the Task Force on air traffic control (Project Beacon) and the subsequent Air Traffic Service analysis of the report.

A program for positive separation of aircraft operating in terminal airspace, regardless of weather conditions, must be able to satisfy the many varied requirements of both the VFR and IFR users without imposing excessive restrictions to their operations, yet it must be within the capabilities of the air traffic control system.

In consideration of these two major stipulations, the program will initially be implemented on a voluntary basis, whereby pilot participation will be encouraged rather than required. In this respect, it is obvious that considerable cooperation and effort must be expended jointly by the Federal Aviation Agency (FAA) and the airspace users, if a realistic evaluation is to be made.

Generally, the objective of this evaluation is to determine the following:

1. Airborne equipment and pilotage requirements.
2. Operating personnel, equipment, procedural and airspace requirements.
3. Impact on the over-all terminal operation.
4. Capability of the air traffic control system to provide positive separation to all aircraft operating within a terminal area.
5. Need for regulatory action.

Following a thorough and complete analysis of this evaluation, FAA in cooperation with the users, will determine the necessary requirements for implementation of a positive separation system in high activity terminal areas, wherein all aircraft would be provided separation by the ATC system, irrespective of weather conditions.

The size and shape of the TRSA will vary depending upon operational requirements. This area may be shown as a circular radius or other configuration and should be no larger than absolutely necessary to adequately perform the control functions.

Implementation

On November 15, 1962, a TRSA program was implemented at Atlanta, Georgia, as the first of selected locations to thoroughly evaluate the program.

In addition to the following details and procedures, information has been provided on appropriate charts, other aeronautical flight information publications a through representative user organizations.

The Atlanta Terminal Radar Service Area is that airspace extending upward from the surface to and including 6,000 feet MSL within the Atlanta Airport Control Zone; and, in addition, that airspace extending from 2,000 feet MSL to and including 6,000 feet MSL within a 15 statute mile radius of the Atlanta Airport, excluding Dobbins AFB Control Zone and the airspace within a 1½ mile radius of the Edwards Skyport and the Gunn Airport; EXCEPT that the base of the airspace area within the Fulton County Airport control zone is 2,500 feet MSL.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Atlan TRSA shall be operated in accordance with curre IFR procedures.
2. **VFR Flights**

   a. Airports within the Atlanta TRSA:

      (1) Arriving aircraft will be expected to cont Atlanta Terminal Control on specified f quencies and in relation to geographical fi listed in d. below.

      (2) Departing aircraft will be advised by the to when to contact departure or terminal c trol and the frequency to be used.

   b. Airports underlying the Atlanta TRSA:

      (1) Unless flight will be conducted below the fl of the TRSA, arriving aircraft will be e pected to contact Atlanta Terminal Cont on specified frequencies and in relation geographical fixes listed in d. below.

      (2) Departing aircraft will be expected to cont Atlanta Terminal Control on the frequen specified in d. below as soon as possible aft becoming airborne if it is desired that flig be conducted within the TRSA.

   c. Transiting Aircraft—Aircraft desiring to tran the TRSA will be expected to contact Atlan Terminal Control on specified frequencies and relation to geographical fixes listed in d. below.

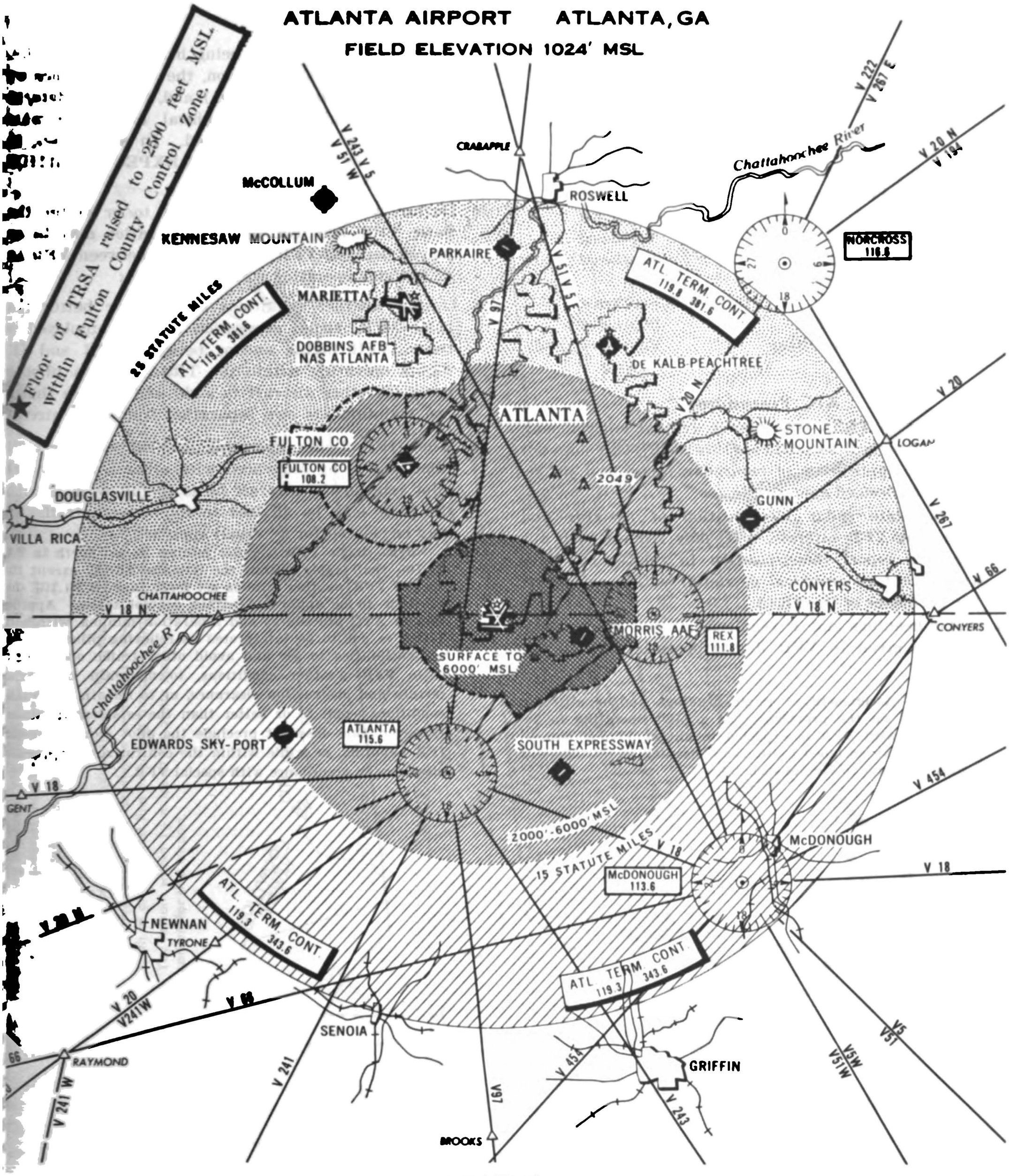
   d. Frequencies and Fixes—En route aircraft shou establish communications with Atlanta Termin Control approximately 25 miles from Atlanta Ai port. Aircraft entering the TRSA north of Ai way V–18N should use 119.8 or 381.6 MC; Aircra entering the TRSA south of Airway V–18N shou use 119.3 or 343.6 MC. Aircraft not equipped fo two-way communications on these frequencie should transmit on 122.7 MC and listen on th appropriate frequency specified above.

      In addition to published radio fixes and oth prominent geographical fixes, the following ar

TERMINAL RADAR SERVICE AREA

ATLANTA AIRPORT ATLANTA, GA

FIELD ELEVATION 1024' MSL



LEGEND

TERMINAL RADAR SERVICE AREA — 2000'-6000' — SURFACE TO 6000'

CONTACT OR CALL-UP AREAS — North of V 18 N — South of V 18 N

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

GEORGIA

graphical fixes and frequencies may be used by pilots:

Fix	Frequency	Location
City of Douglasville	119.8/381.6	West-Northwest
Kennesaw Mountain	"	Northwest
City of Rosewell and Chattahoochee River	"	North
Dekalb-Peachtree Airport	"	Northeast
Stone Mountain	"	Northeast
Gunn Field	"	Northeast
City of Conveyors	"	East
City of Griffin	119.3/343.6	Southeast
City of Newnan	"	Southwest
Chattahoochee River	"	Southwest and West

ATC Procedures

1. The Atlanta TRSA is primarily a radar environment, and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.
2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.
3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

   NOTE.—Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

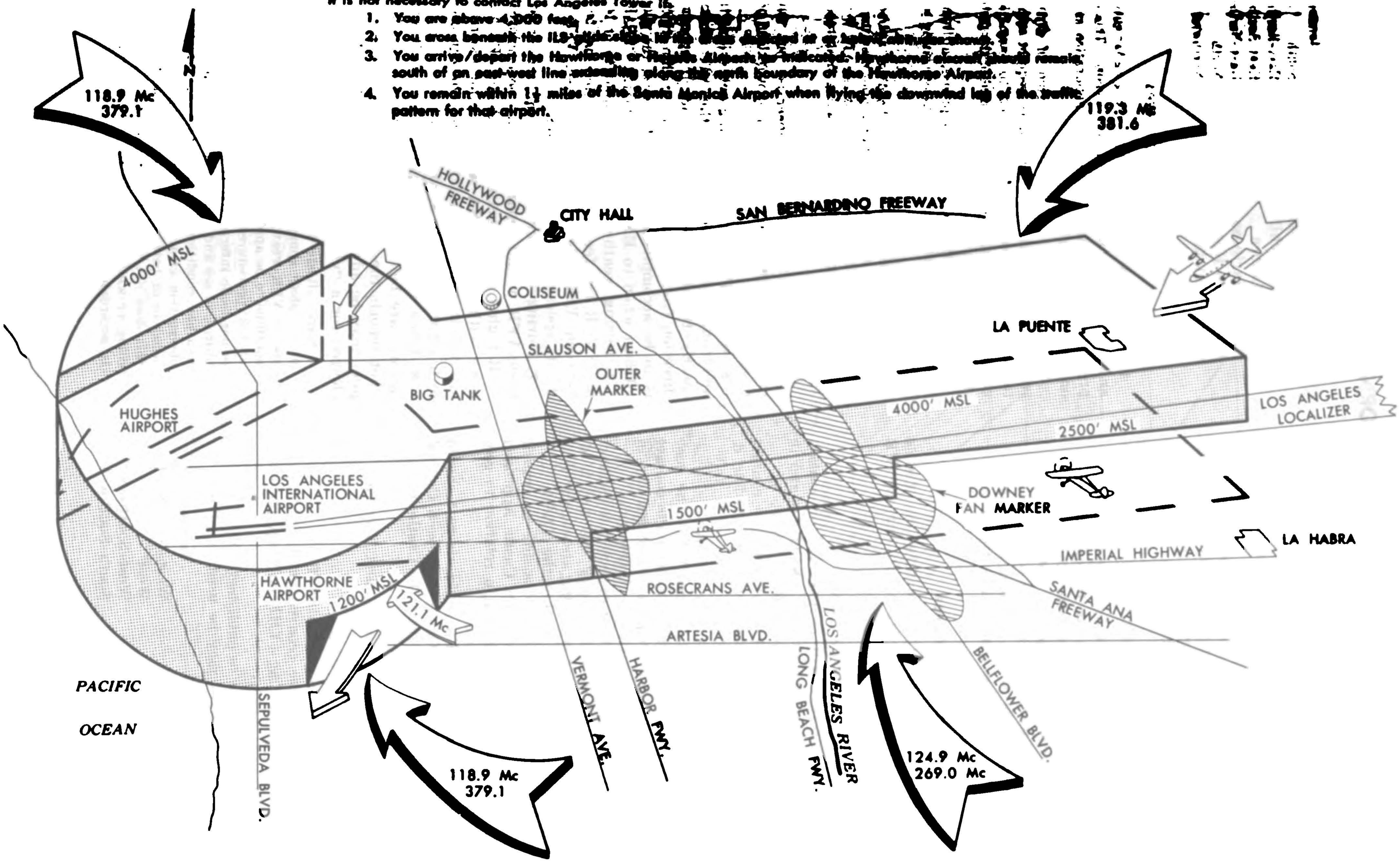
4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.
5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.
6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.
7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

   NOTE.—Basic VFR weather minima as set forth in FAR 91.105 shall apply within the Atlanta TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However, this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.

Prior to penetrating this area, VFR pilots are encouraged to contact Los Angeles Tower for traffic advisory service on the frequencies indicated for the direction of flight.

It is not necessary to contact Los Angeles Tower if:

1. You are above 4,000 feet.
2. You are beneath the ILS glide path of the [illegible] at an altitude [illegible].
3. You arrive/depart the Hawthorne or Hughes Airports as indicated. Hawthorne aircraft should remain south of an east-west line extending along the north boundary of the Hawthorne Airport.
4. You remain within 1½ miles of the Santa Monica Airport when flying the downwind leg of the traffic pattern for that airport.



*THIS DOES NOT CONSTITUTE AUTHORITY FOR A PILOT TO DEVIATE FROM FAR 91.79 OR OTHER APPLICABLE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS.

Merced CALIFORNIA

CASTLE TERMINAL RADAR SERVICE AREA

Implementation

On March 1, 1965, a TRSA program was implemented at Merced, California, in the Castle AFB terminal area. The service is designed using the concepts developed by the Federal Aviation Agency for the Atlanta, Georgia, area and, in addition, includes procedures peculiar to the operation of military aircraft. The service is mandatory for use by the USAF pilot. All civil and other military pilots are encouraged to participate on a voluntary basis.

The Castle Terminal Radar Service Area is that airspace extending upward from the surface to and including 7,000 feet MSL within the Merced Control Zone; and, in addition, that airspace extending from 1,500 feet MSL to and including 7,000 feet MSL within a 15 nautical mile radius of the Castle Airport, excluding the airspace 3,000 feet MSL and above within Victor Airway 23.

Flight Procedures

1. **IFR Flights**—Aircraft operating within the Castle TRSA shall be operated in accordance with current IFR procedures.

2. **VFR Flights:**

a. Airports within the Castle TRSA:

(1) Arriving aircraft will be expected to contact Castle Approach Control on specified frequencies and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below.

b. Airports underlying the Castle TRSA:

(1) Unless flight will be conducted below the floor of the TRSA, arriving aircraft will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

(2) Departing aircraft will be expected to contact Castle Departure Control on a frequency specified in d. below as soon as possible after becoming airborne if it is desired that flight be conducted within the TRSA.

c. Transiting Aircraft: Aircraft desiring to transit the TRSA will be expected to contact Castle Approach Control on a frequency specified and in relation to geographical fixes listed in d. below.

d. Frequencies and Fixes: En route aircraft should establish communications with Castle Approach Control approximately 25 nautical miles from the Castle Airport.

(1) Frequencies:

(a) Civil: 118.9 mc Transmit and Receive
122.5 mc Transmit
114.2 mc Receive

(b) Military: 294.5 mc (jet aircraft)
301.5 mc (conventional aircraft)
137.65 mc (VHF only equipped aircraft)

(2) Fixes: In addition to published radio fixes, the following geographical fixes may be used by pilots:

Fix	Location
City of Modesto	West–Northwest
Crows Landing (NAS)	West
City of Gustine	West–Southwest
City of Los Banos	South–Southwest
City of Dos Palos	South
City of Chowchilla	East–Southeast
City of Madera	East–Southeast
City of Mariposa	East–Northeast
Don Pedro Reservoir	North
City of Oakdale	Northwest

ATC Procedures

1. The Castle TRSA is primarily a radar environment and control will be predicated thereon. This does not preclude application of nonradar separation as required or deemed appropriate.

2. To facilitate radar identification of arriving and transiting VFR aircraft, ATC may request such aircraft to report their position in relation to fixes (prominent geographical or radio) within or outside the perimeter of the TRSA.

3. Radar headings and, if required, altitude assignments may be given to VFR flights operating within the TRSA.

NOTE.—**Assignment of radar headings and/or altitude are based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.**

4. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis.

5. When VFR aircraft are being held within the TRSA and control is based thereon, the ATC clearance will specify the distance (radius) and, if appropriate, the direction from the geographical fix within which holding is to be accomplished. In such cases, the pilot will be advised when to EXPECT FURTHER CLEARANCE.

6. During weather conditions equal to or better than basic VFR, 500 feet vertical separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA.

7. During weather conditions equal to or better than basic VFR, visual separation may be employed between VFR flights and/or between VFR and IFR flights operating within the TRSA when a pilot reports the other aircraft in sight and advises that he can maintain his own separation from such aircraft.

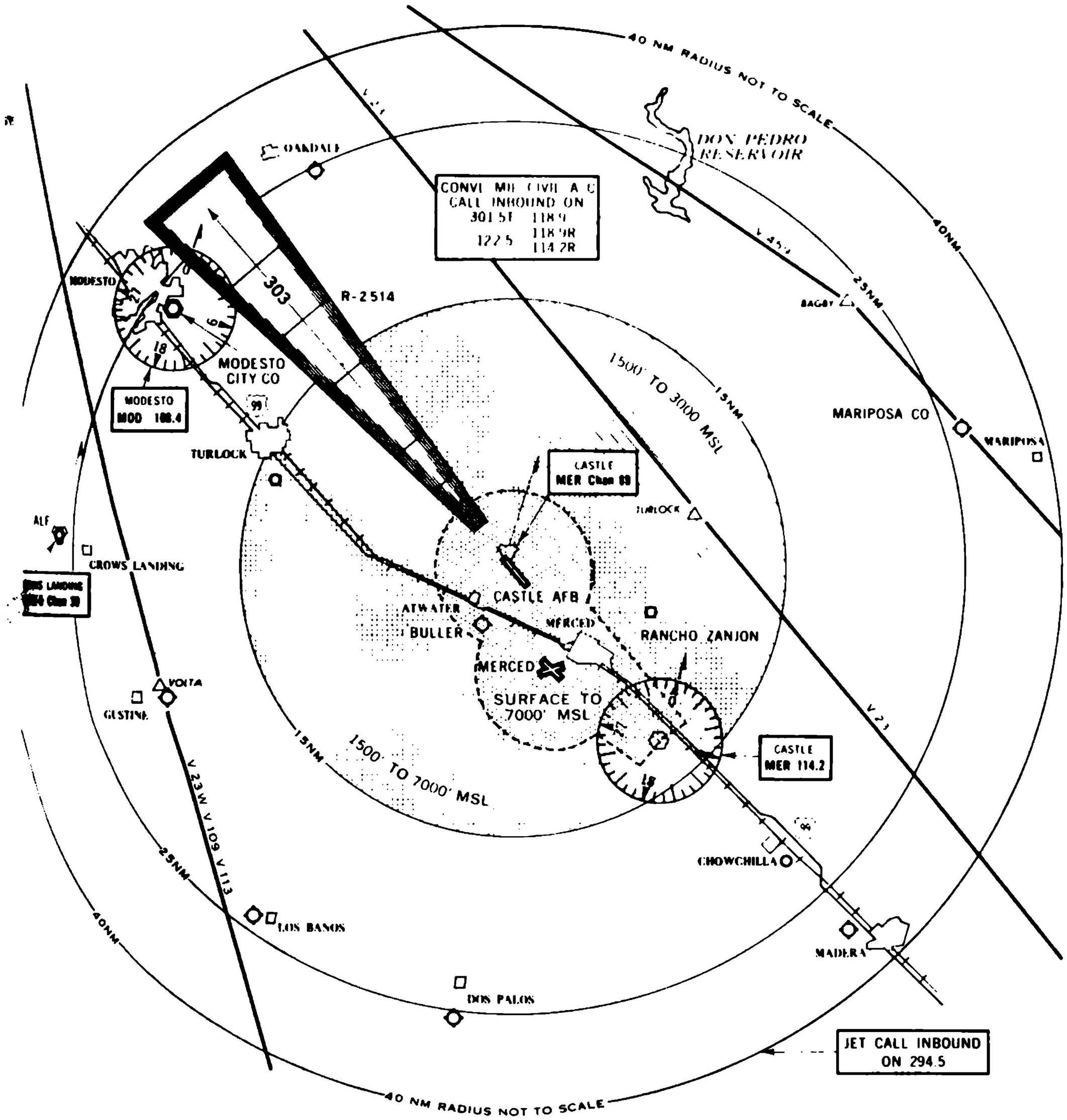
8. When IFR flights, operating in VFR weather conditions, are being sequenced with other traffic and the pilot reports the aircraft he is to follow is in sight, the pilot may be advised to follow such traffic and may be cleared for a "visual approach."

NOTE.—**Basic VFR weather minima as set forth in FAR 91.105 shall comply within the Castle TRSA, except that special VFR weather minima set forth in FAR 91.107 shall continue to be applicable within control zones. Application of ATC procedures and separation minima within the TRSA is not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the established minima. However this does not preclude the pilot from requesting IFR handling, or while within the control zone, requesting clearance in accordance with special VFR.**

TERMINAL RADAR SERVICE AREA

CASTLE AIR FORCE BASE MERCED, CALIFORNIA

FIELD ELEVATION 188' MSL



This chart not to be used for navigational purposes

LEGEND

TERMINAL RADAR SERVICE AREA — SURFACE TO 7000' | 1500' TO 3000 | 1500' TO 7000

CONTACT OR CALL-UP AREAS — CONVENTIONAL AIRCRAFT 25NM
JET AIRCRAFT 40NM

Prepared by
Coast and Geodetic Survey
U.S. DEPT. OF COMMERCE

Chicago ILLINOIS

PARALLEL ILS APPROACHES—CHICAGO O'HARE INTERNATIONAL AIRPORT

Effective April 11, 1964 a revised Parallel ILS 14R&L approach procedure Amendment 1 was effective for Chicago O'Hare International Airport. ILS, radar, communications, ATC procedures and flight procedures are employed as integral parts of a total system. Under the system, Chicago Approach Control may clear aircraft to conduct Parallel ILS Approaches to Runways 14L and 14R when wind conditions permit straight-in landings and when all components of the system—except airborne or ground glide slope equipment—are operating normally. Aircraft are radar vectored to the final approach course (localizer) of either runway and the pilot executes an ILS approach. The separation between localizer courses (6,510 feet) imposes certain requirements and techniques peculiar to parallel approaches.

Requirements: To conduct a Parallel ILS Approach, aircraft must be equipped with a functioning 75 mc marker (or ADF) and localizer receivers, and have the capability to simultaneously monitor both the assigned control frequency and the appropriate localizer voice frequency when advised by ATC.

ATC Concept and Procedures: Arriving IFR aircraft en route to O'Hare Airport will be cleared by Chicago Center to one of four outer fixes (Northbrook, Niles, Lakewood, or Warren) established in the O'Hare Terminal Area and changed over to Chicago Approach Control for further clearance. On initial contact, Chicago Approach Control will advise the pilot that PARALLEL ILS APPROACHES ARE IN PROGRESS. Upon receipt of this information, **pilots who do not have required equipment** or do not wish to conduct a Parallel ILS approach, or require a specific runway, or require a radar fix in lieu of Meadow Intersection for 14L, must advise Chicago Approach Control prior to departing the outer fix. This will enable the controller to plan and provide for individual handling.

Chicago Approach Control will clear aircraft to depart the outer fix on a specified heading and at a specified altitude FOR RADAR VECTOR TO RUNWAY 14 (RIGHT/LEFT) ILS FINAL APPROACH COURSE and will specify the appropriate localizer frequency (109.7 or 110.1). After departing the outer fix, aircraft will be descended to the appropriate ILS Intercept Altitude (2,200 or 3,200 feet m.s.l.) and provided a period of level flight prior to the ILS intercept in which the pilot may dissipate any excess speed accumulated during the descent.

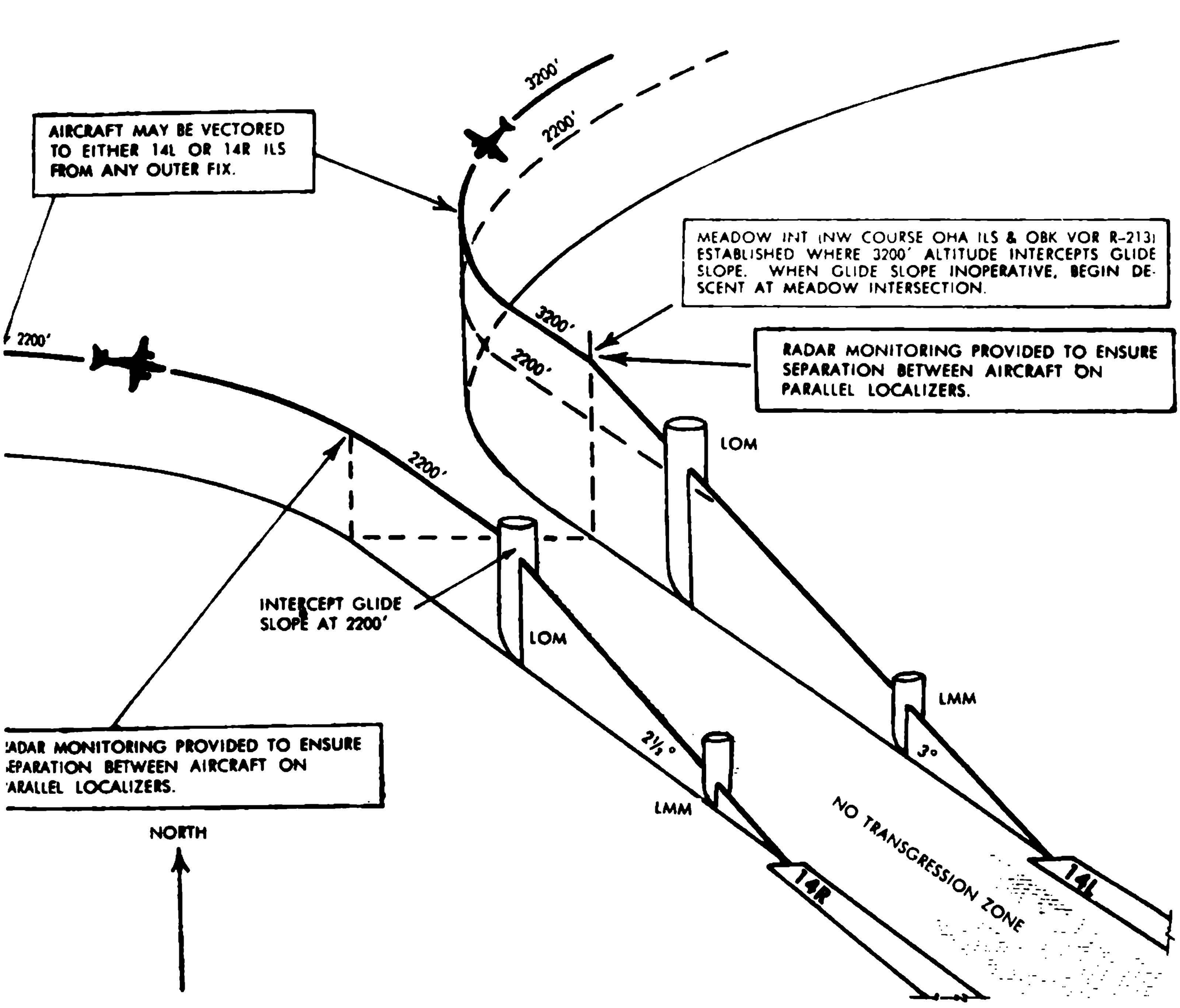
ATC Separation: Radar separation is provided between aircraft being vectored to, and while on, the same localizer course throughout the entire approach. Aircraft being vectored to Runway 14R will intercept that localizer course at 2,200 feet m.s.l. Aircraft being vectored to 14L will intercept that localizer course at 3,200 feet m.s.l., or higher. Since aircraft may be vectored to either IL localizer course from any of the four outer fixes, a mi mum of 1,000 feet vertical or 3 miles radar separati will be provided between the aircraft being vectored opposite ILS courses during the turn-on. The appropr ate ILS Intercept Altitude is maintained by the aircra until intercepting the glide slope. After the turn-on a until aircraft are 2.3 miles northwest of the out markers, a minimum of 1,000 feet vertical separation provided between aircraft on parallel ILS localiz courses.

Localizer Interception: Aircraft will be vectored so as permit the pilot to intercept the appropriate ILS localiz course at an angle not greater than 20°. After assigni this final intercept heading, approach control will cle the aircraft for a parallel ILS approach. Subsequent the pilot will be changed over to O'Hare Tower and i structed to monitor the appropriate localizer voice fr quency (either 109.7 or 110.1 mc). When glide slo receiver or ground glide slope transmitter is inoperati the pilot will begin descent from 3,200 feet for 14L Meadow Intersection or descend from 2,200 feet for 1- at the LOM. When glide slope is out or not received radar fix in lieu of Meadow Intersection will be provid upon pilots request or aircraft equipped with ILS a VOR will start descent on 14L upon identification Meadow Intersection.

Radar Monitoring: All turn-ons and final approaches a radar monitored regardless of weather conditions. Mo tor controllers will issue advisory information and c trol instructions as may be necessary to insure that a craft on final approach remain within an area 1,500 f either side of the localizer course. Since the prima responsibility for navigation rests with the pilot, advis information and control instructions issued on the loc izer voice frequency are limited to those necessary insure separation between aircraft. Pilots need n acknowledge transmissions made by the monitor c troller on localizer voice frequency unless specifica requested to do so.

A "no transgression zone" 3,510 feet wide is est lished equidistant between the centerlines of each lo izer course and displayed on the monitor radar sc Should an aircraft on final approach deviate from cou and enter the "no transgression zone," the monitor c troller will issue instructions as are necessary to alter t course of that aircraft. Concurrently, immediate act will be taken by the controller monitoring the adjace localizer course to cause any aircraft in potential con with the intruding aircraft to alter its flight path.

Missed Approach: The missed approach procedure d veloped for either runway is designed to provide sepa tion from the adjacent runway. The pilot may be i structed to execute the missed approach procedure at a time during the approach.


AIRCRAFT MAY BE VECTORED TO EITHER 14L OR 14R ILS FROM ANY OUTER FIX.
3200'
2200'
MEADOW INT INW COURSE OHA ILS & OBK VOR R-213) ESTABLISHED WHERE 3200' ALTITUDE INTERCEPTS GLIDE SLOPE. WHEN GLIDE SLOPE INOPERATIVE, BEGIN DESCENT AT MEADOW INTERSECTION.
RADAR MONITORING PROVIDED TO ENSURE SEPARATION BETWEEN AIRCRAFT ON PARALLEL LOCALIZERS.
LOM
LMM
INTERCEPT GLIDE SLOPE AT 2200'
2½°
3°
NO TRANSGRESSION ZONE
14R
14L
NORTH

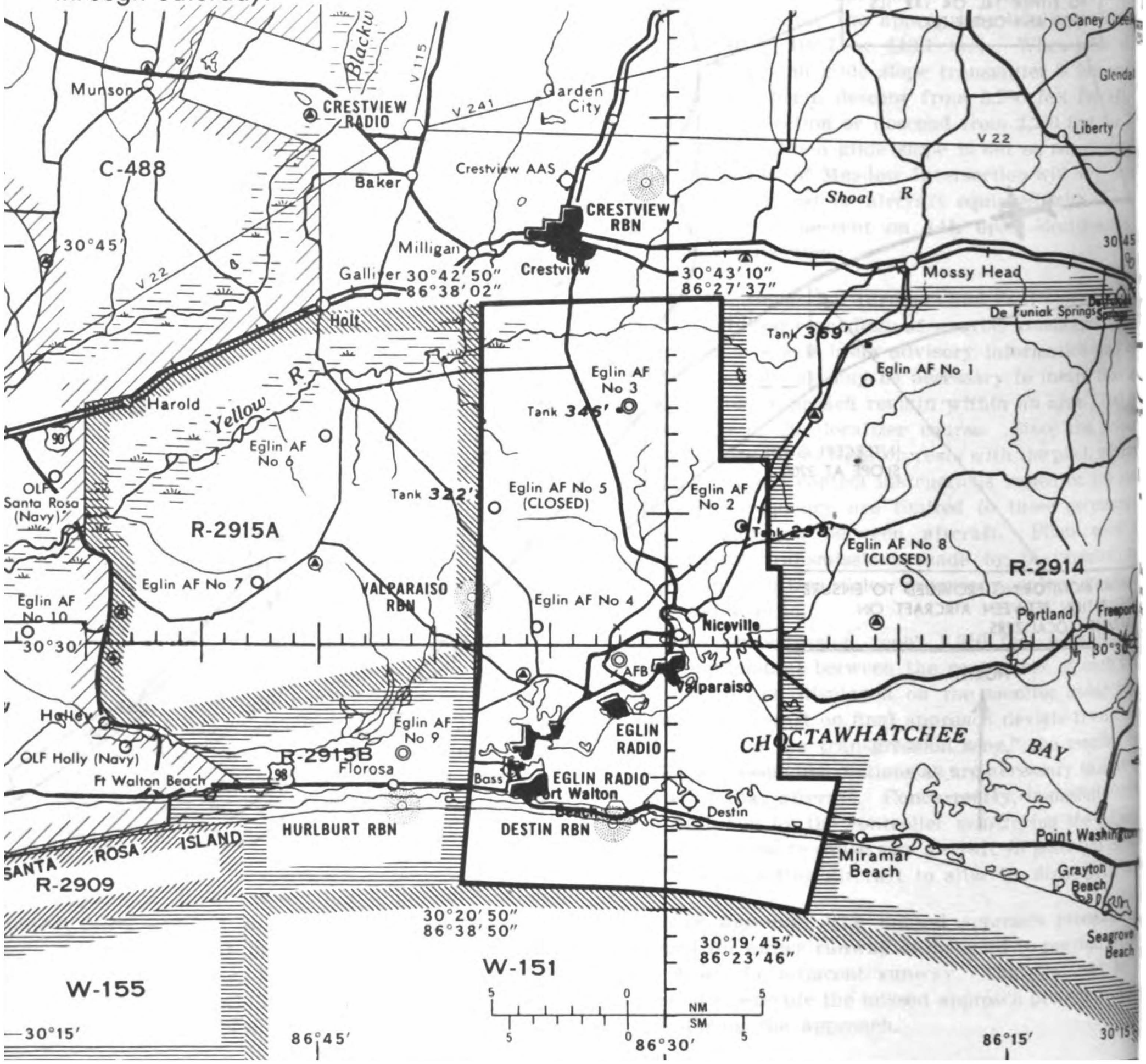
86°45′ 86°15′

VALPARAISO, FLORIDA, TERMINAL AREA

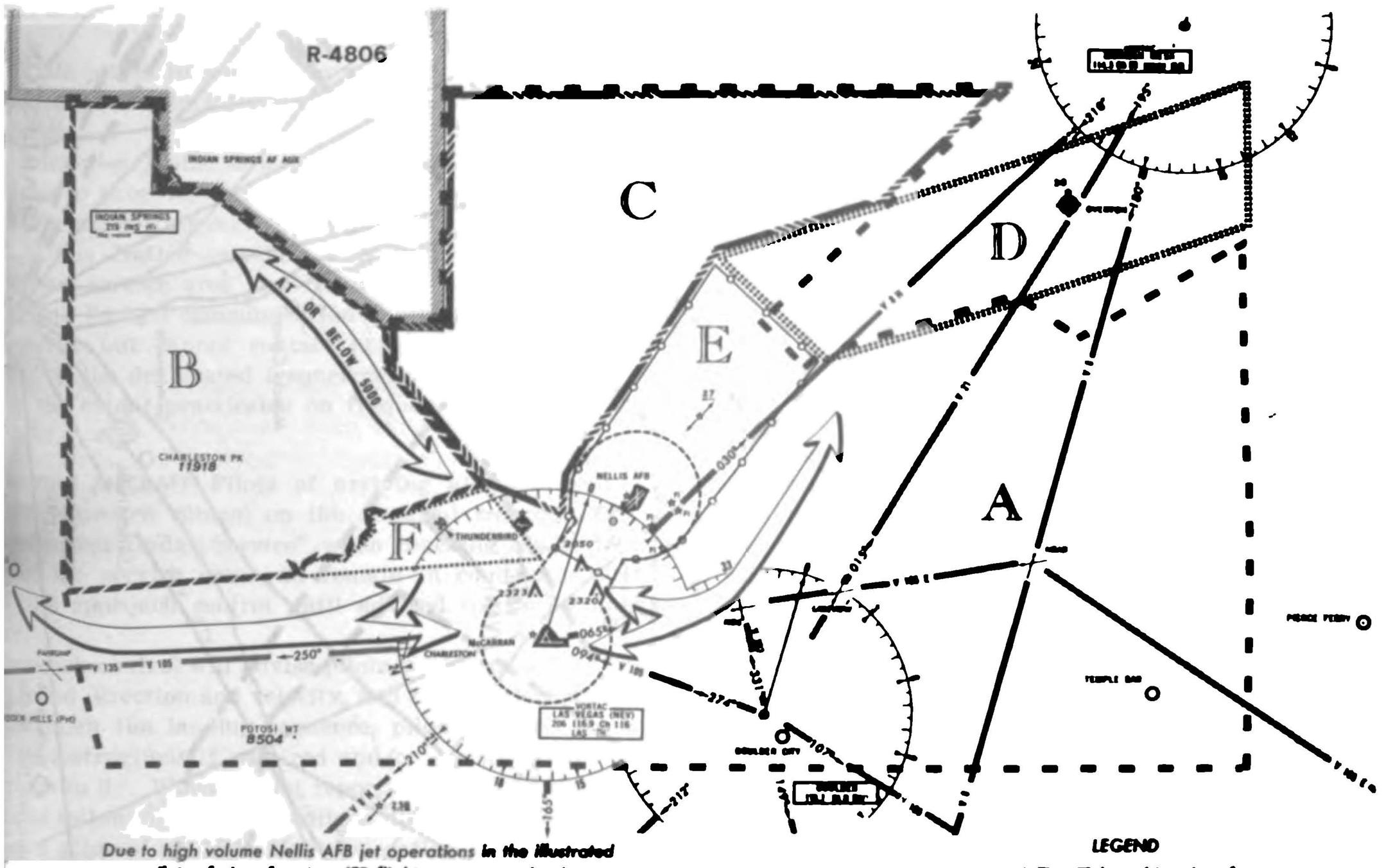
SPECIAL AIR TRAFFIC RULES (VFR OR VFR CONDITIONS)

EFFECTIVE DECEMBER 10, 1964

Prior to conducting flight operations in the area shown, pilots are required to obtain information about operating altitudes of high speed special activities conducted in the area. Normally, special activities will use not more than two altitude levels. Contact Crestview Radio, Eglin AFB RAPCON, Tallahassee Radio, or Pensacola Radio. Information may be obtained by radio or telephone. This special rule is in effect sunrise to sunset Monday through Saturday.



LAS VEGAS TERMINAL AREA NOTICE
LAS VEGAS, NEVADA



Due to high volume Nellis AFB jet operations in the illustrated area pilots of aircraft not on IFR flight plans operating into or through the Las Vegas area are encouraged to:

1. *Avoid areas of jet concentration by following suggested routings shown by arrows, at appropriate altitudes and;*
2. a. *Arriving – contact Las Vegas Approach Control on 121.1, 125.9, 284.6 or 353.6 mcs, for radar advisories when inbound prior to reaching a point approximately 30 miles from Las Vegas or if not practical, contact Las Vegas Radio for in-flight advisories.*
   b. *Departing – contact Las Vegas Departure Control on 119.4 or 335.5 mcs, for radar advisories immediately after departure from McCarran Field or Thunderbird Airport.*

LEGEND

Nellis AFB based jet aircraft VFR departure and arrival areas.
Altitudes are Mean Sea Level

A — — — 23,000
B ▰▰▰▰ 5,500-23,000
C ▬▬▬ Surface to 23,000
D ▪▪▪▪▪▪▪▪ 8,000 & 9,000 inclv.
E ○——○——○ Surface to 9,000
F ..... 10,000 to 23,000

Recommended itinerant VFR routes ⟺

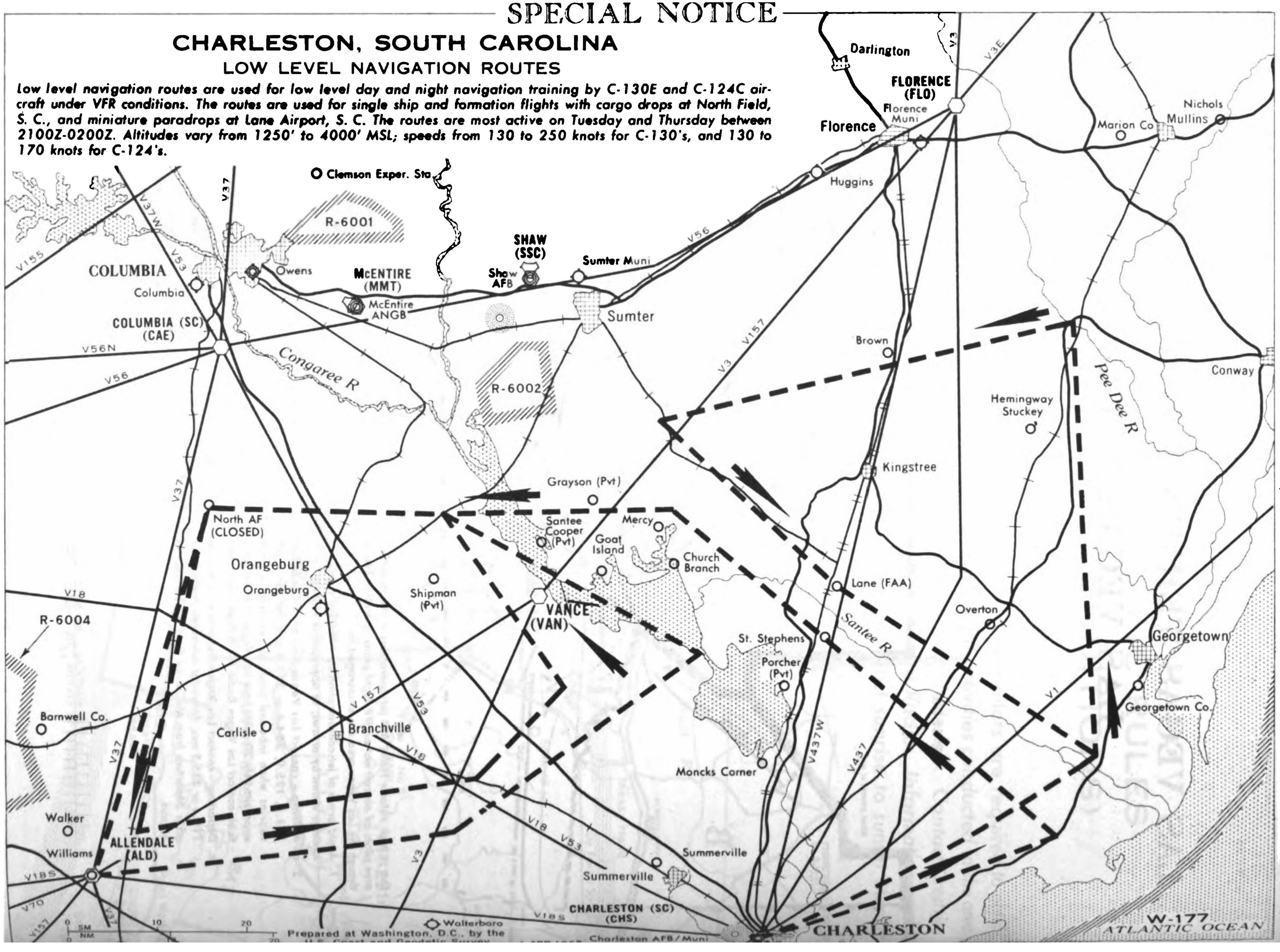
Base And Airspace Compiled From 54th Edition Of Mt Whitney And 58th Edition Of Los Angeles Sectional Aeronautical Charts

10 0 10 20 30 40 50 NAUTICAL MILES
10 0 10 20 30 40 50 STATUTE MILES

CHARLESTON, SOUTH CAROLINA

LOW LEVEL NAVIGATION ROUTES

Low level navigation routes are used for low level day and night navigation training by C-130E and C-124C aircraft under VFR conditions. The routes are used for single ship and formation flights with cargo drops at North Field, S. C., and miniature paradrops at Lane Airport, S. C. The routes are most active on Tuesday and Thursday between 2100Z-0200Z. Altitudes vary from 1250' to 4000' MSL; speeds from 130 to 250 knots for C-130's, and 130 to 170 knots for C-124's.



EXPANDED RADAR SERVICE FOR ARRIVING AND DEPARTING FLIGHTS IN TERMINAL AREAS

'ertain approach control facilities are providing ex-ded radar service for arriving and departing flights hin their terminal areas. These services are designed

1. Aid pilots to see and avoid other traffic by pro-ing radar traffic information on possible conflicting ffic, and
2. Improve traffic flow by giving specific routes or dings to properly sequence arrivals.

ations where this service is provided are listed at the of this Notice together with information on the gnated service area and frequency to be used. Air-ft with limited communication equipment who desire service but cannot contact approach or departure rol on the designated frequencies will be given serv-to the extent practicable on frequencies available to pilot.

RRIVING AIRCRAFT: Pilots of arriving aircraft should tact approach control on the assigned frequency/ies l "Request Radar Service" when reaching the perim-of the service area and remain in communication h the approach control until advised to contact the er.

pproach control will advise pilots of the runway to be d, wind direction and velocity, and traffic information. establish the landing sequence, pilots will be given ling instructions if required and/or specific routes or dings to fly. When a pilot reports he has the aircraft is to follow in sight, he will be directed to follow it. en a pilot of an IFR flight, operating in basic VFR ther conditions, is instructed to follow a preceding raft he will be cleared for a "visual approach." This rance may be issued whether or not the IFR flight is rating within the control zone. With a "visual ap-ach" clearance, the pilot operating on an IFR flight in VFR conditions may deviate from the prescribed rument approach procedure and proceed to the air-with visual reference to the surface. Radar service be terminated when aircraft are told to contact the er and the tower will assign a landing sequence ber.

EPARTING AIRCRAFT: Departing VFR aircraft desiring ffic information should "Request Radar Service" on al contact with ground control and advise proposed ction of flight. Following takeoff, the tower will ad-when to contact departure control and the frequency e used.

'hen radar contact is established, departure control provide traffic information until radar contact is lost or the flight has reached the perimeter of the service area. The pilot will be advised when radar service is terminated.

TRAFFIC INFORMATION: Standard radar separation will be provided between aircraft operating in accordance with Instrument Flight Rules until such time as the aircraft is sequenced and the pilot sees the aircraft he is to follow. Standard radar separation between VFR or between VFR and IFR aircraft will not be provided; instead, traffic information will be issued to the appropriate aircraft prior to the time less than 3 nmi exists between one identified VFR flight and another identified flight, either VFR or IFR. Traffic information on other observed but unidentified radar targets will be issued to the extent controller workload permits. Pilots may request radar vectors to avoid reported traffic and vectors will be given to the extent possible consistent with controller workload.

Pilot participation in this program is not mandatory but is strongly urged since the success of the program is largely dependent on full pilot participation.

THESE PROCEDURES ARE NOT TO BE INTERPRETED AS RELIEVING PILOT OF THEIR RESPONSIBILITIES TO SEE AND AVOID OTHER TRAFFIC OPERATING IN BASIC VFR WEATHER CONDITIONS, TO MAINTAIN APPROPRIATE TERRAIN AND OBSTRUCTION CLEARANCE, OR TO REMAIN IN WEATHER CONDITIONS EQUAL TO OR BETTER THAN THE MINIMA REQUIRED BY FAR 91.105. WHENEVER COMPLIANCE WITH AN ASSIGNED ROUTE OR HEADING IS LIKELY TO COMPROMISE SAID PILOT RESPONSIBILITY RESPECTING TERRAIN AND OBSTRUCTION CLEARANCE AND WEATHER MINIMA, APPROACH CONTROL SHOULD BE SO ADVISED AND A REVISED CLEARANCE OR INSTRUCTION OBTAINED.

LOCATIONS AT WHICH THE ABOVE RADAR SERVICE IS PROVIDED

John F. Kennedy Intl Airport, N.Y.

EFFECTIVE DATE: 16 AUGUST 1962

Area Within Which Service is Provided: Approximately 25 nautical mile radius of John F. Kennedy Intl Airport exclusive of LaGuardia, Newark, and Floyd Bennett NAS control zones. **Arrival Frequencies:** Aircraft flying to the airport, contact approach control on 120.8 mc. Aircraft not equipped for two-way communication on 120.8 mc should transmit 122.7 mc and listen on 120.8 mc. **Departure Frequencies:** N and W bound 123.9 mc or 269.4 mc; all others 121.1 mc or 269.4 mc.

Houston International Airport, Tex.

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 nmi from the airport. **Arrival Frequencies:** Aircraft flying to the airport on headings of 189° thru 037° contact approach control on 118.3 mc or 379.1 mc. Those flying headings of 038° thru 188° use 118.1 mc or 307.1 mc. Aircraft not equipped for two-way communication on those frequencies should transmit 122.5 mc and listen on the appropriate frequency specified above or a frequency/ies assigned by the facility. **Departure Frequencies:** 123.7 mc or 290.2 mc.

El Paso International Airport, Texas and Biggs AFB, Texas

EFFECTIVE DATE: 1 SEPTEMBER 1962

Area Within Which Service is Provided: At least 25 mi from the airports. **Arrival Frequencies:** Aircraft should use 118.7 mc or 307.0 mc. Aircraft not equipped for two-way communications on those frequencies should transmit 122.7 mc and listen on the appropriate listed frequency. **Departure Frequencies:** The tower will advise pilots of departing VFR flights who have requested the service when to contact departure control and the frequency to be used.

Los Angeles International Airport, California

EFFECTIVE DATE: 22 SEPTEMBER 1964

Area within which service is provided: 25 nmi. **Arrival Freq:** 045–224 degrees inbound, 119.3 or 381.6 mc. 225–044 degrees inbound, 124.9 or 260.0 mc. If not so equipped, trans 122.7 mc and guard above freq or LAX VOR. **Departure Freq:** tower, 118.9 mc. then departure control o: 125.2 or 385.4 mc when outbound 225–045 degrees, 124. or 363.2 mc, 045–225 degrees.

Weir-Cook, Indianapolis, Indiana

EFFECTIVE DATE: 14 SEPTEMBER 1964

Area within which service is provided: 20 nmi, 4000' an below. **Arrival Freq:** 118.5 mc. **Departure freq:** ground contro 121.9 mc then Indianapolis Departure Radar Servic 121.3 mc. Enroute aircraft contact Indianapolis Termin Radar Service, 118.5 mc.

Logan International Airport, Boston, Mass.

EFFECTIVE DATE: 17 FEBRUARY 1965

Area in which service is provided: Approximately 25 na tical mile radius of Logan International Airport. **A rival frequencies:** Aircraft flying to the airport on headin. of 035° through 140° should use the frequencies 12 or 281.5 mcs. Those flying headings of 141° throu 034° use 120.6 or 263.1 mcs. Aircraft not so equip should transmit on 122.5 mcs. and listen on the app priate frequency. **Departure frequencies:** 119.1 or 343.6 m

Friendship Intl Airport, Baltimore, Maryland

EFFECTIVE DATE: 11 February 1965

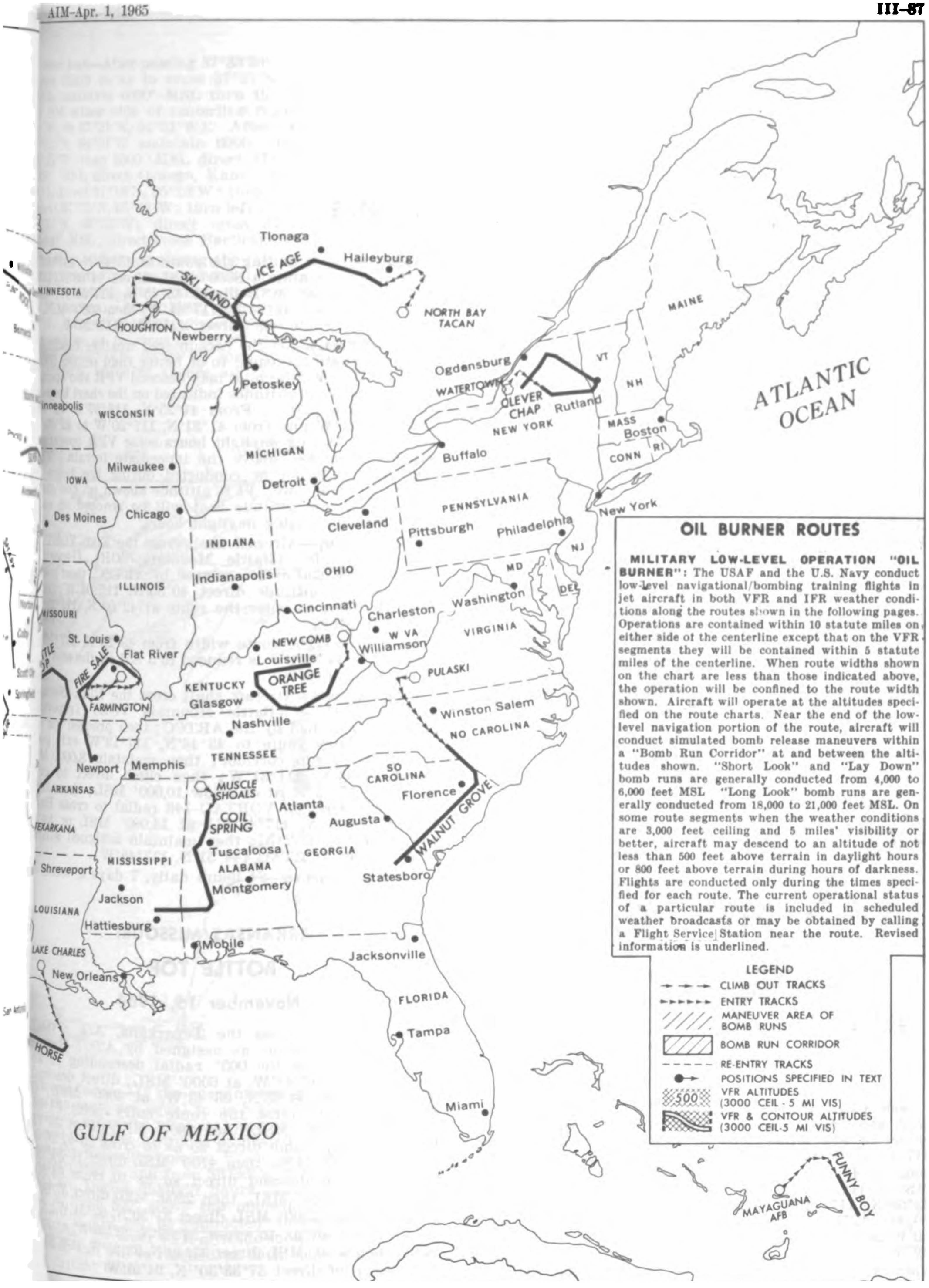
AREA IN WHICH SERVICE IS PROVIDED: Approximately mi radius. **Arrival freq:** In bound on 101° thru 281 u 121.1 mc or 360.8 mc; inbound on 282° thru 100 u 125.9 mc or 307.9 mc. **Departure freq:** 120.4 or 381.4 m when advised by tower.

MILITARY AERIAL REFUELING TRACKS

itary aircraft conduct refueling operations throughout the continental United States normally between 12,000 feet MSL and FL 240 on an IFR flight plan at assigned altitude(s). Refueling aircraft have right of way over other aircraft in accordance with FAR 91.67(c)

Name	Location	Ingress			Egress		
		Navaid	Bearing Degrees	Distance Miles	Navaid	Bearing Degrees	Distance Miles
k Warrior	Washington, Idaho	GEG VORTAC	224	54	MLP VOR	164	103
er Town	North Carolina, South Carolina, Virginia, Georgia.	SPA VORTAC LYH VORTAC	233 340	47 17	LYH VORTAC SPA VORTAC	340 233	17 47
s Over Alpha	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 263	99 133	CZI VOR BOI VORTAC	263 354	133 99
s Over Bravo	Idaho, Oregon, Wyoming	BOI VORTAC CZI VOR	354 255	79 137	CZI VOR BOI VORTAC	255 354	137 79
Jar	Minnesota, Wisconsin	RWY VOR RWF VOR	260 140	26 30	RWF VOR ALO VORTAC	140 034	30 38
en Heart	Kansas-Nebraska	ICT VORTAC LBF VORTAC	262 005	65 42	LBF VORTAC ICT VORTAC	005 262	42 65
en Heart Lima	Kansas-Nebraska	ICT VORTAC HCT VORTAC	262 003	65 78	HCT VORTAC ICT VORTAC	003 262	78 65
tock Alpha	New York, Pennsylvania	BUF VORTAC ALB VORTAC	230 259	41 36	ALB VORTAC BUF VORTAC	259 230	36 41
tock Bravo	New York, Pennsylvania	ERI VORTAC ALB VORTAC	081 244	16 55	ALB VORTAC ERI VORTAC	244 081	55 16
Proof	Oregon	DLS VORTAC REO VOR	217 173	33 63	REO VOR DLS VORTAC	173 217	63 33
Bug Alfa	South Dakota-North Dakota	ABR VOR DIK VORTAC	158 333	53 78	DIK VORTAC ABR VOR	333 158	78 53
Bug Bravo	South Dakota-North Dakota	ABR VOR DIK VORTAC	174 320	66 69	DIK VORTAC ABR VOR	320 174	69 66
e Tree Alpha	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	049 236	104 34	PQI VOR ALB VORTAC	236 049	34 104
e Tree Bravo	Maine, New Hampshire, Vermont	ALB VORTAC PQI VOR	060 211	102 45	PQI VOR ALB VORTAC	211 060	45 102
Road Alfa	Wisconsin, Minnesota, South Dakota	GRB VORTAC ABR VOR	320 039	115 77	ABR VOR GRB VORTAC	039 320	77 115
Road Bravo	Wisconsin, Minnesota, South Dakota	GRB VORTAC ABR VOR	311 052	102 65	ABR VOR GRB VORTAC	052 311	65 102
Wind Lima Alpha	Montana, Washington	GEG VORTAC LWT VOR	001 350	72 95	LWT VOR GEG VORTAC	350 001	95 72
Wind Lima Bravo	Montana, Washington	GEG VORTAC LWT VOR	008 354	52 74	LWT VOR GEG VORTAC	354 008	74 52
e Eye	Louisiana, Mississippi, Tennessee	MSY VORTAC MEM VORTAC	222 212	79 63	MEM VORTAC MYS VORTAC	212 222	63 79

INDEX OF OIL BURNER ROUTES



OIL BURNER ROUTES

MILITARY LOW-LEVEL OPERATION "OIL BURNER": The USAF and the U.S. Navy conduct low-level navigational/bombing training flights in jet aircraft in both VFR and IFR weather conditions along the routes shown in the following pages. Operations are contained within 10 statute miles on either side of the centerline except that on the VFR segments they will be contained within 5 statute miles of the centerline. When route widths shown on the chart are less than those indicated above, the operation will be confined to the route width shown. Aircraft will operate at the altitudes specified on the route charts. Near the end of the low-level navigation portion of the route, aircraft will conduct simulated bomb release maneuvers within a "Bomb Run Corridor" at and between the altitudes shown. "Short Look" and "Lay Down" bomb runs are generally conducted from 4,000 to 6,000 feet MSL "Long Look" bomb runs are generally conducted from 18,000 to 21,000 feet MSL. On some route segments when the weather conditions are 3,000 feet ceiling and 5 miles' visibility or better, aircraft may descend to an altitude of not less than 500 feet above terrain in daylight hours or 800 feet above terrain during hours of darkness. Flights are conducted only during the times specified for each route. The current operational status of a particular route is included in scheduled weather broadcasts or may be obtained by calling a Flight Service Station near the route. Revised information is underlined.

LEGEND

- CLIMB OUT TRACKS
- ENTRY TRACKS
- MANEUVER AREA OF BOMB RUNS
- BOMB RUN CORRIDOR
- RE-ENTRY TRACKS
- POSITIONS SPECIFIED IN TEXT
- 500 VFR ALTITUDES (3000 CEIL - 5 MI VIS)
- VFR & CONTOUR ALTITUDES (3000 CEIL-5 MI VIS)

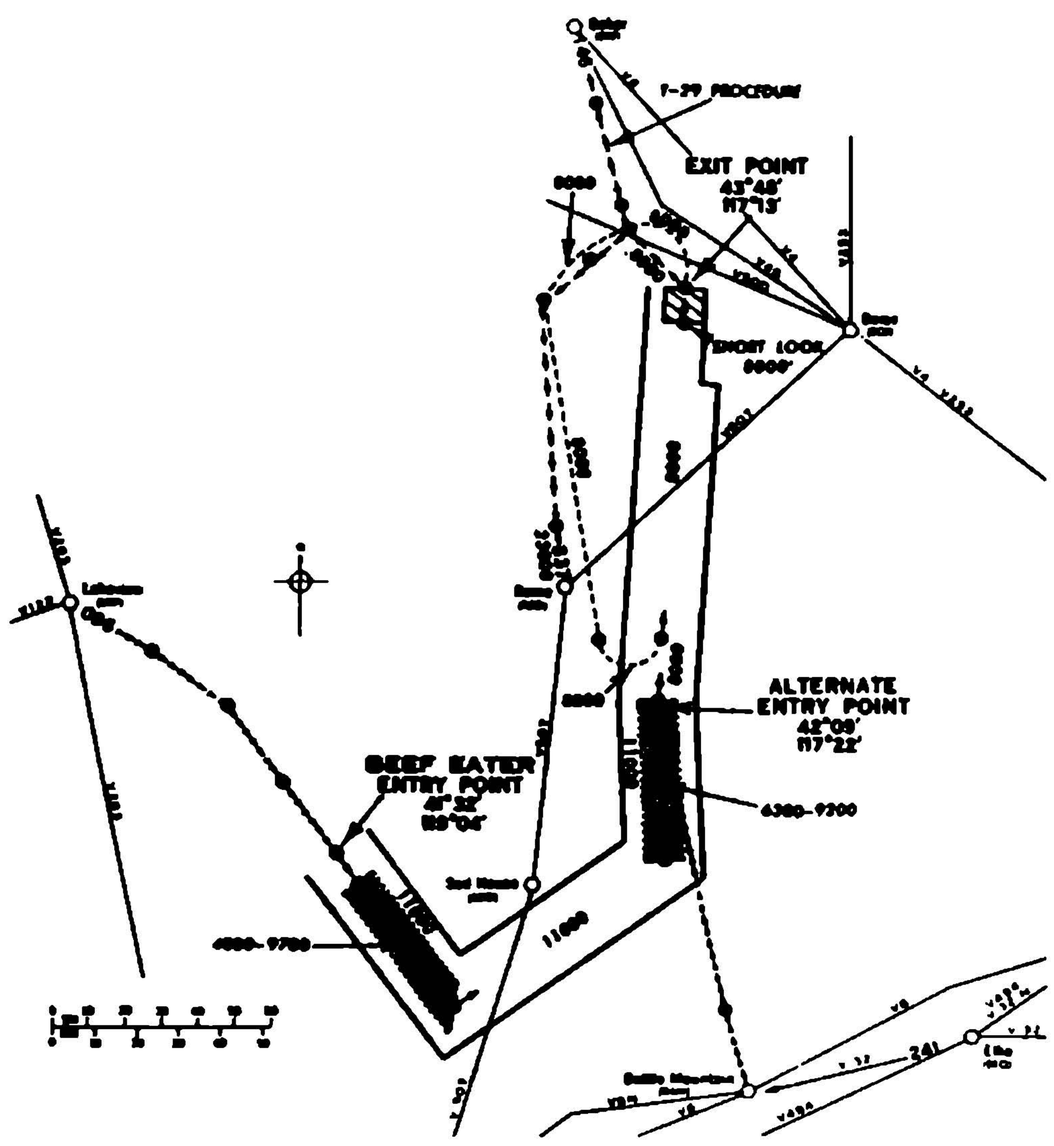
OIL BURNER ROUTES

NEVADA/OREGON

BEEF EATER

Effective May 3, 1964

Aircraft shall cross the Lakeview, Ore. VORTAC (reporting point) at FL 230, or as assigned by ARTCC; then maintain assigned altitude via the Lakeview 096° radial until 22 NM east of the Lakeview VORTAC (42°-20'N, 120°04'W); then descend direct to cross 42°07'N, 119°39'W at or below FL 230; then descend direct to cross 41°49'N, 119°21'W at or above 16,000' MSL; then descend direct to cross the entry point of the low level route at 41°32'N, 119°04'W at 11,000' MSL, then 11,000' MSL direct 40°55'N, 118°27'W, then 11,000' MSL direct 41°31'N, 117°20'W, then 11,000'. MSL direct 42°09'N, 117°22'W; then descend to cross 42°26'N, 117°20'W at 8000' MSL, then 8000' MSL direct 43°40'N, 117°13'30''W.



Short Look—After passing 43°40'N, 117°13'30''W aircraft shall maintain 8000' MSL thru the bomb run corridor (5 SM either side of centerline from 43°40'N, 117°13'30''W to 43°48'N, 117°13'W). After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 43°55'N, 117°44'W (reporting point—Beef Eater 1) at 10,000' MSL; then climb direct to cross 43°45'N, 117°-59'W at or above 14,000' MSL; then climb direct to cross 42°51'N, 117°54'W at FL 230, then maintain FL 230 via the Rome 337° radial to the Rome, Oregon. VOR.

Re-Entry—After exiting the route at 43°48'N, 117°13'W aircraft shall maintain 8000' MSL direct 44°03'N, 117°31'W, then 8000' MSL direct 43°45'N, 117°59'W, then 8000' MSL direct 42°24'N, 117°41'W, then 8000' MSL to re-enter the route via direct 42°26'N, 117°20'W.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000' visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 41°25'N, 118°57'W to 40°-55'N, 118°27'W and from 41°31'N, 117°20'W to 42°09'N, 117°22'W. During daylight hours some VFR operations will be flown 800' above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Elko VORTAC 241/54 DME fix (Battle Mountain VOR) (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned altitude direct 40°55'N, 117°01'W; then descend direct to enter the route at 42°09'N, 117°22'W at 11,000' MSL.

Route Width—The route width from 43°25'N, 117°15'W to 43°48'N, 117°13'W is reduced to 5 SM on the east side of the centerline.

T–29 Procedure—Aircraft shall cross the Elko, Nevada VORTAC 241/54 (Battle Mountain VOR) (reporting point) as assigned by the ARTCC; then proceed via the alternate entry route to 43°48'N, 117°13'W exit point of the bomb run corridor; then maintain 8,000' MSL direct 44°03'N, 117°31'W; then climb direct to cross 44°08'N, 117°33'W at or below 10,000' MSL; then direct via Baker, Oregon, VORTAC 146 radial to cross Baker 146/19 (44°32'N, 117°42'W) at 14,000' MSL or as assigned by the ARTCC; then maintain assigned altitude direct Baker VORTAC (44°51'N, 117°48'W).

Hours of Operation—24 hours daily, 7 days a week.

ARKANSAS/MISSOURI

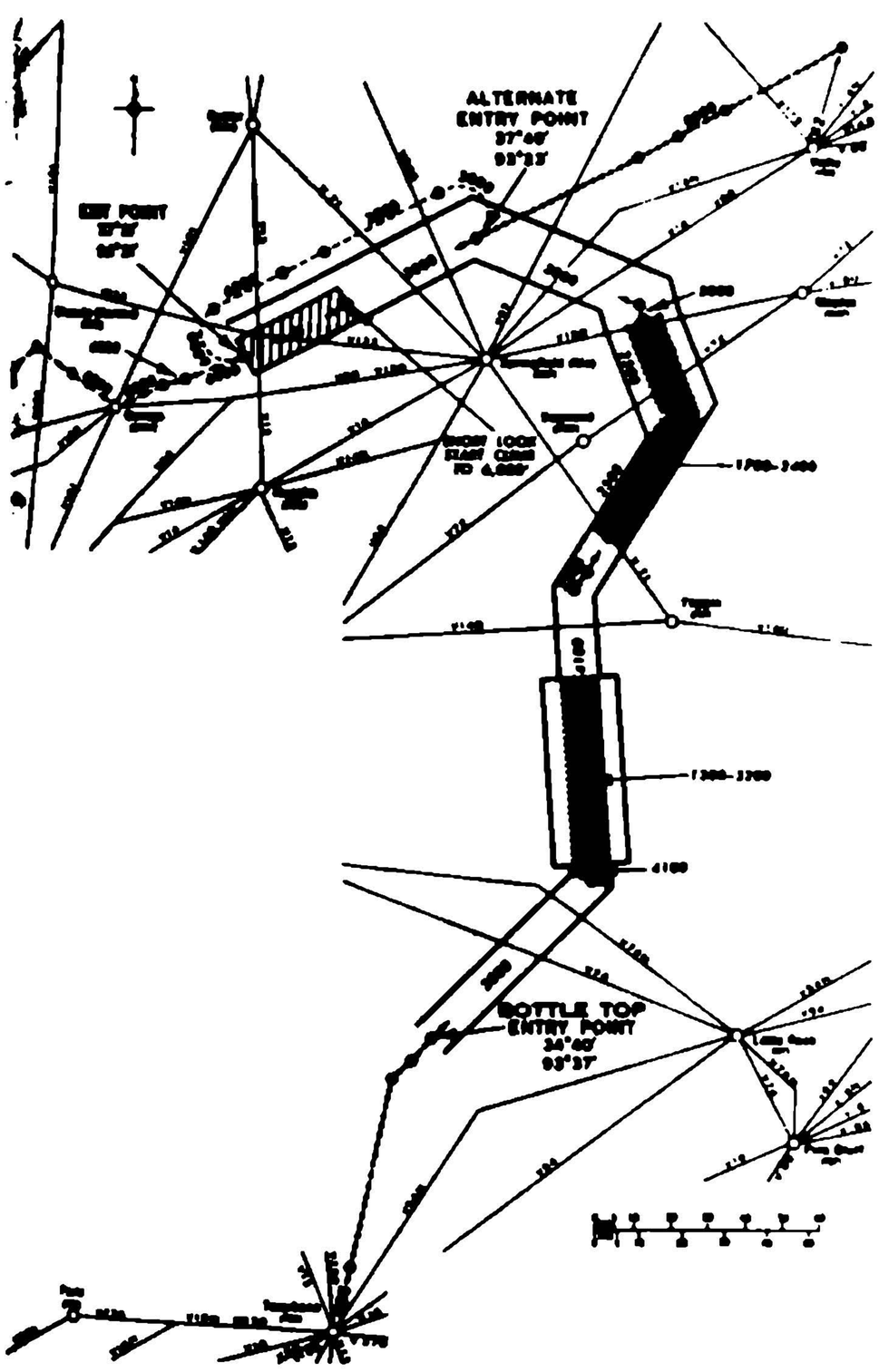
BOTTLE TOP

November 15, 1964

Aircraft shall cross the Texarkana, Ark. VORTAC 005/15 at FL 190 or as assigned by ATC; then proceed outbound on the 005° radial descending so as to cross 34°31'N, 93°48'W, at 6000' MSL; direct descending so as to cross 34°35'N, 93°43'W, at 4000' MSL; then direct so as to cross the route entry point 34°40'N 93°37'W at 2800' MSL, then 2800' MSL direct 35°17'N 92°51'W; then climb direct so as to cross 35°21'N, 92°-51'W, at 4100' MSL, then 4100' MSL direct to 36°26'N 92°55'W; then descend direct so as to cross 36°30'N 92°52'W, at 2500' MSL, then 2500' MSL direct 37°06'N 92°23'W, then 2500' MSL direct 37°30'N, 92°34'W; then climb direct so as to cross 37°33'N, 92°35'W at 3000' MSL, then 3000' MSL direct 37°49'N, 93°23'W, then 3000' MSL turn lef direct 37°33'30''N, 94°01'W.

Short Look—After passing 37°33'30"N, 94°01'W, aircraft all climb so as to cross 37°27'N, 94°16'W, at 6000' MSL, maintain 6000' MSL thru the bomb run corridor 5 SM either side of centerline from 37°33'30"N, 94°-1'W, to 37°21'N, 94°31'W). After exiting the route at 37°21'N, 94°31'W maintain 6000' MSL direct 37°16'N, 94°49'W, then 6000' MSL direct 37°14'N, 94°56'W, then 6000' MSL direct Oswego, Kans. VOR, maintain 6000' MSL direct 37°16'N, 95°28'W; then start climb to FL 230 direct 37°22'N, 95°42'W; turn left continuing climb direct 37°17'N, 95°52'W; direct cross 37°13'N, 95°53'W at 6000' MSL; direct cross Bartlesville, Okla. at FL 230.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°21'N, 94°-31'W, maintain 6000' MSL, turn right to 37°32'N, 94°-31'W, then 6000' MSL direct 37°41'N, 94°20'W; then descend so as to cross 37°46'N, 94°08'W at 3000' MSL direct to 38°00'N, 93°34'W, then 3000' MSL turn right 37°49'N, 93°23'W, thence via the published route.



Alternate Entry—Aircraft shall cross the Vichy, Mo. VORTAC 012/25 at 15,000' MSL or as assigned by ATC. Descend direct so as to cross 38°19'N, 92°08'W at 8000' MSL; then at 8000' MSL direct to 38°13'N, 92°22'W; then descend so as to cross 38°08'N, 92°34'W at 4000' MSL; then continue descent so as to cross 37°49'N, 93°23'W at 3000' MSL. Thence via published route.

Route Width—The route width from 34°40'N, 93°37'W to 35°21'N, 92°51'W and from 36°05'N, 92°53'W to 37°-06'N, 92°23'W is reduced to 5 SM either side of centerline and 5 SM on the south side of centerline from 37°33'N, 92°35'W to 37°21'N, 94°31'W.

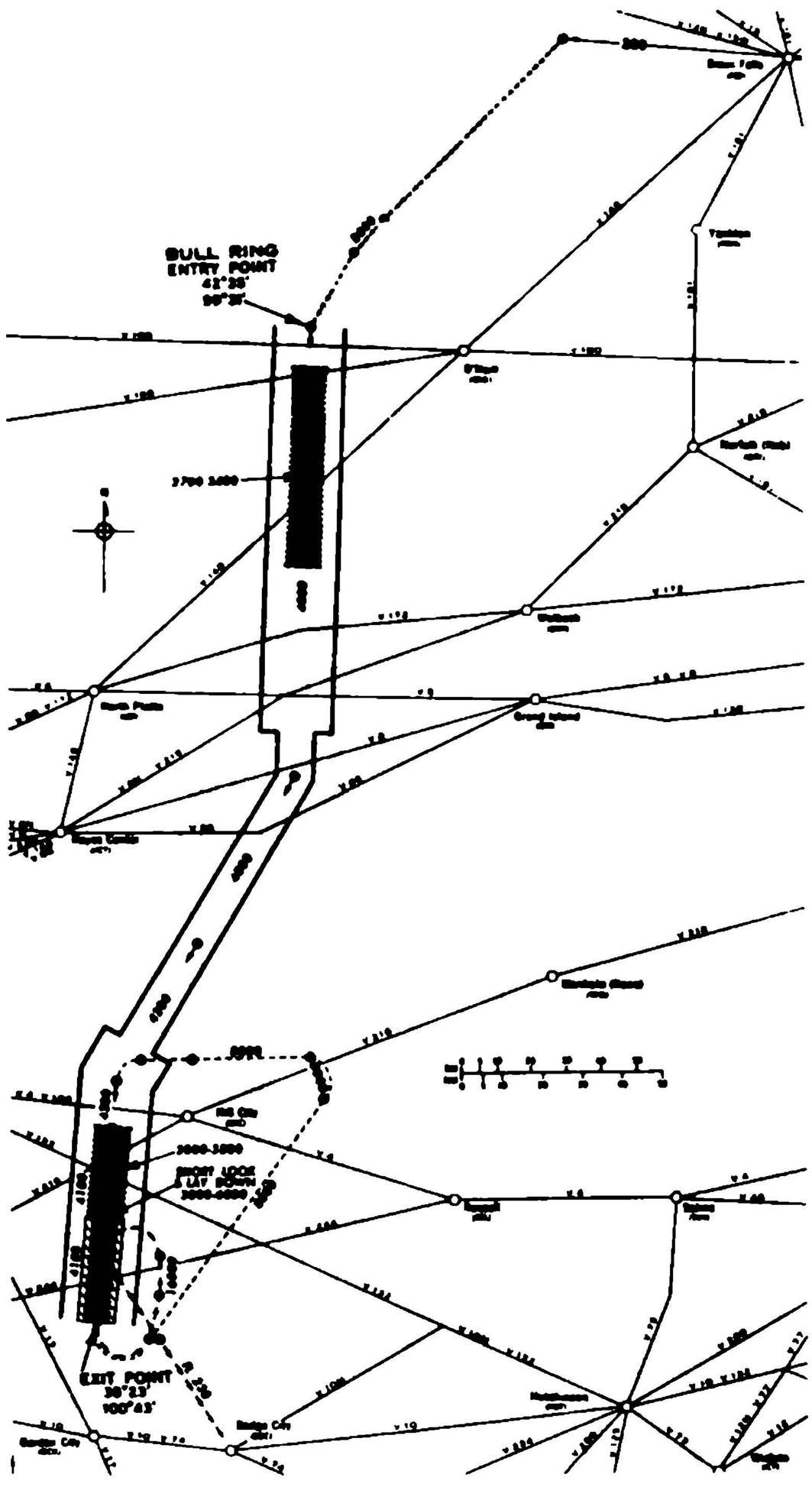
Hours of Operation—0100Z to 1400Z, 7 days per week.

KANSAS/NEBRASKA/SOUTH DAKOTA

BULL RING

Effective March 1 thru August 27, 1965

Aircraft shall cross the Sioux Falls VORTAC 269/55 (43°46'N, 98°02'W) at FL 290 or as assigned by ARTC:



VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 35°17'N, 92°51'W to 36°05'N, 92°53'W and from 36°38'N, 92°45'W to 37°30'N, 93°34'W. During daylight hours, some VFR operations will be flown 800' above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

then descend direct so as to cross 43°02′N, 99°06′W at 8,000′ MSL; then at 8,000′ MSL direct to 42°54′N, 99°-17′W; then descend direct so as to cross 42°35′N, 99°31′W at 4,000′ MSL (Low Level Entry Point); then at 4,000′ MSL direct to 40°41′N, 99°38′W; then at 4,000′ MSL direct to 40°00′N, 100°10′W; then at 4,200′ MSL direct to 39°26′N, 100°36′W; then at 4,200′ MSL direct to 39°-13′N, 100°37′W; then at 4,100′ MSL direct to the entry point of the bomb run corridor at 38°50′N, 100°40′W.

Short Look and Lay Down—After passing 38°50′N, 100°-40′W aircraft shall maintain between 3,000′ MSL and 6,000′ MSL through the bomb run corridor (5 SM either side of centerline from 38°50′N, 100°40′W to 38°23′N, 100°43′W), the minimum IFR altitude through the bomb run corridor is 4,100′ MSL. After exiting the route at 38°23′N, 100°43′W, aircraft shall turn left climbing to 38°20′N, 100°26′W; then continue climb direct so as to cross 38°31′N, 100°24′W at 16,000′ MSL; then at 16,000′ MSL direct 38°40′N, 100°23′W; then at 16,000′ MSL turn left to 38°41′N, 100°41′W; then climb direct to the Dodge City, Kansas, VOR crossing 38°19′N, 100°24′W at FL 230; then at FL 230 to the Dodge City VOR.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 38°23′N, 100°43′W, turn left and climb so as to cross 38°20′N, 100°26′W at 8,000′ MSL; then at 8,000′ MSL direct 39°21′N, 99°30′W; then at 8,000′ MSL turn left to 39°31′N, 99°34′W then at 8,000′ MSL direct 39°31′N, 100°12′W; then start descent direct so as to cross 39°31′N, 100°28′ at 4,200′ MSL; then turn left at 4,200′ MSL to 39°26′N, 100°36′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′; visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°25′N, 99°32′W to 41°35′N, 99°35′W and from 39°13′N, 100°37′W to 38°-23′N, 100°43′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude on the chart is the minimum altitude that will be reached during daylight hours.

Route Width—The route width is reduced to 5 SM on each side of centerline from 40°53′N, 99°38′W to 39°-35′N, 100°30′W.

Hours of Operation—24 hours daily, 7 days a week.

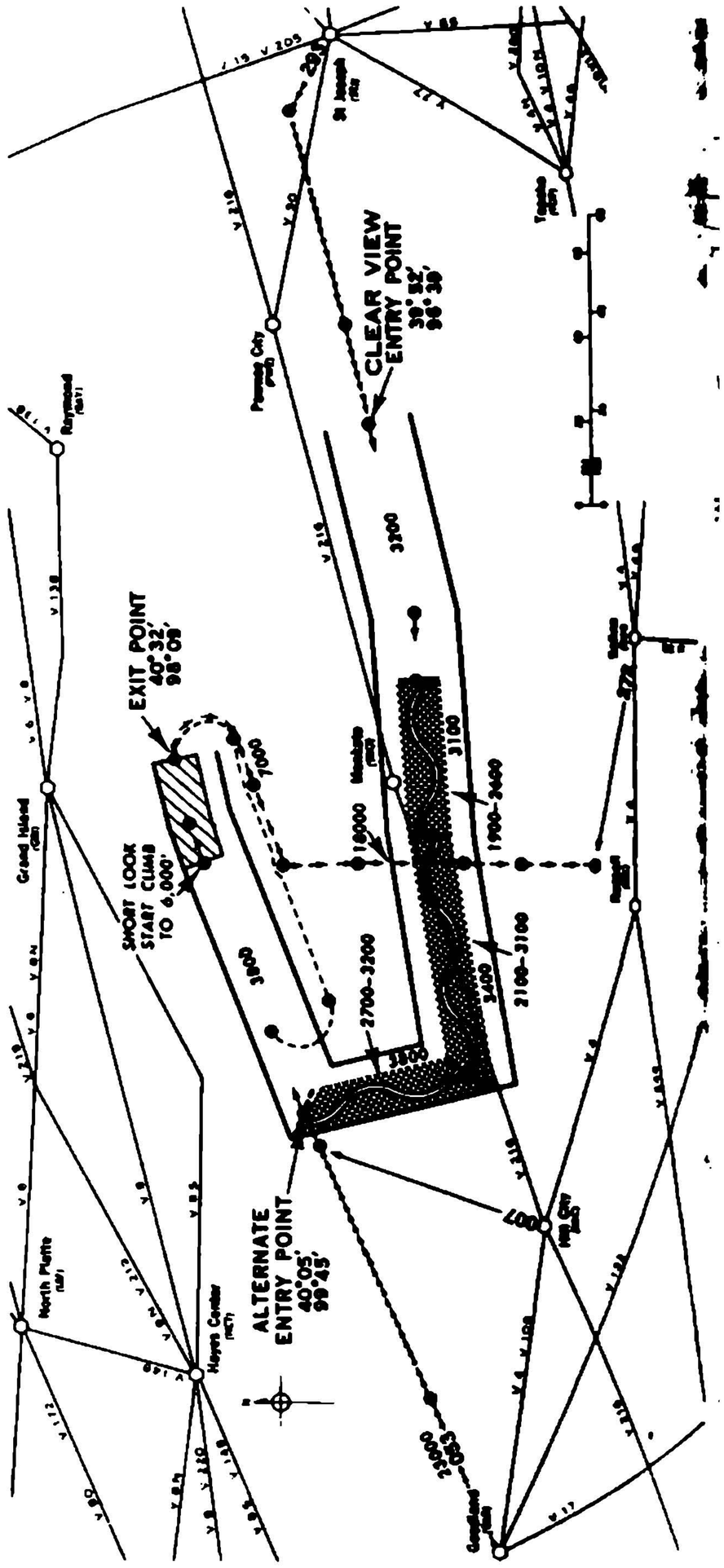
KANSAS/MISSOURI/NEBRASKA

CLEAR VIEW

Revised Effective December 24, 1964

Aircraft shall cross the St. Joseph, Mo. VOR at FL 240 or above, then proceed northwest on the St. Joseph VOR 293° radial, maintain FL 240 or above until 17 NM northwest of St. Joseph VOR; turn left direct 39°56′N, 96°12′W crossing this point at 9000′ MSL, descend to 3200′ MSL direct to the route entry point at 39°52′N, 96°39′W, maintain 3200′ MSL direct 39°43′N, 97°30′W, descend to 3100′ MSL direct 39°40′N, 98°30′W, climb to 3400′ MSL direct 39°31′N, 99°34′W, climb to 3800′ MSL direct 40°05′N, 99°45′W; maintain 3800′ MSL direct 40°26′N, 98°37′W.

Short Look—After passing 40°26′N, 98°37′W, proceed direct to 40°29′N, 98°27′W climbing so as to cross this point at 6000′ MSL; maintain 6000′ MSL through the bomb run corridor (5 SM either side centerline from 40°26′N, 98°37′W to 40°32′N, 98°09′W); after exiting the route at 40°32′N, 98°09′W, turn right climbing to cross 40°20′N, 98°03′W at 7000′ MSL; then at 7000′ MSL direct 40°16′N, 98°16′W; then start climb so as to cross 40°10′N, 98°37′W at or below 14,000′ MSL; then turn left climbing so as to cross 39°54′N, 98°37′W at FL 180; then at FL 180 direct 39°33′N, 98°37′W; then climb so as to cross 39°21′N, 98°37′W at or below FL 230, then start climb so as to cross the Salina VORTAC 272/48 at FL 250.



Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 40°32′N, 98°-09′W, turn right climbing to 7000′ MSL to 40°30′N 98°03′W, maintain 7000′ MSL direct 40°00′N, 99°14′W, turn right descending to 3800′ MSL to 40°12′N, 99°22′W, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 39°42′N, 97°48′W to 40°05′N, 99°45′W. During daylight hours, some VFR operations will be flown 500′ above the immediate ter-

in. VFR operations conducted during the hours of rkness will not be flown lower than 800' above the rrain. The lower VFR altitude shown on the chart is e minimum altitude that will be reached on each route gment during daylight hours.

Alternate Entry—Aircraft shall cross the Goodland, Kans VOR at FL 230; and proceed northeast on the Goodland VOR 053° radial maintaining FL 230 until 35 NM rtheast of Goodland VOR, then descend so as to reach 0' MSL by the Hill City, Kansas VOR 007/49 NM fix; en descend to 3800' MSL direct 40°05'N, 99 45'W, nce via the published route.

Route Width—The route width from 39°31'N, 99 34'W the route exit point is 5 SM on the west and north le of the route centerline and 10 SM on the east and uth side of the route centerline.

Hours of Operation—0000Z to 2359Z Monday through turday.

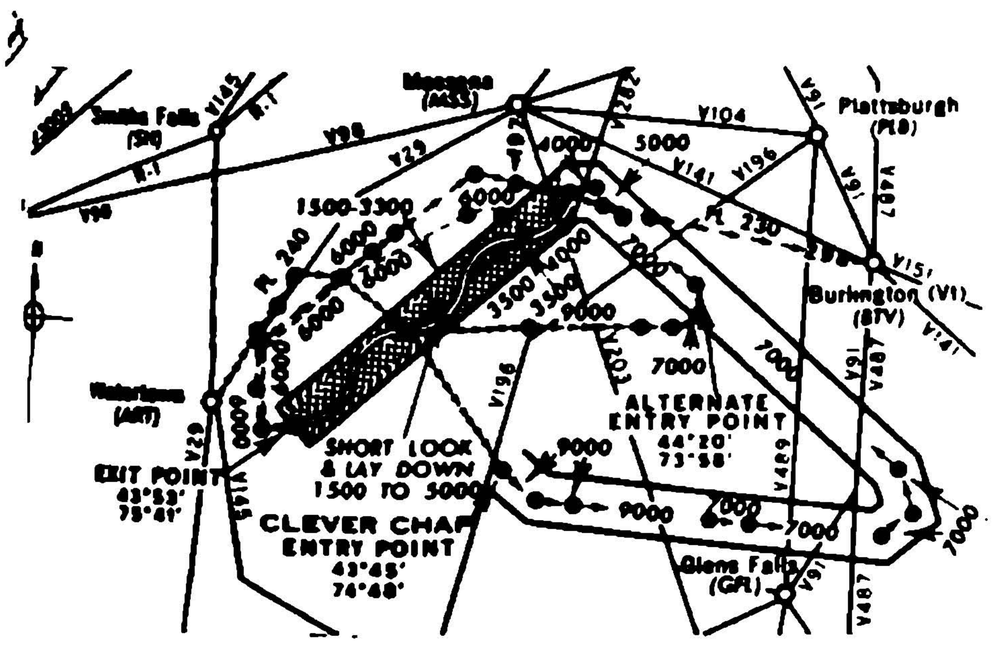
NEW YORK/VERMONT

CLEVER CHAP

Effective March 4, 1965

(Replaces Short Doll Route)

Aircraft shall cross 43°57'N, 76°04'W (Watertown, t. VOR) at FL 290; descend cross 44°11'N, 75°52'W FL 250 or above; cross 44°16'N, 75°47'W at FL 240; ect 44°22'N, 75°42'W; cross 44°22'N, 75°30'W at FL 0; cross 44°13'N, 75°12'W at 14,000' MSL; cross low eel entry point 43°45'N, 74°48'W at 9000' MSL; maintain 9000' direct 43°39'N, 74°39'W direct 43°38'N, 74°30' direct 43°35'N, 73°55'W descend to cross 43°34'N, 46'W at 7000' MSL maintain 7000' direct 43°31'N, 10'W left turn to 43°36'N, 73°01'W to 43°43'N, 73°05'W ect 44°33'N, 74°16'W descend to cross 44°37'N, 74°24'W 5000' cross 44°37'N, 74°30'W at 4000' maintain 4000' to 28'N, 74°44'W descend to cross 44°26'N, 74°47'W at 0' MSL; direct at 3500' MSL to enter bomb run corr at 44°15'N, 75°05'W.



Short Look and Lay Down—After passing 44°15'N, 75°05'W craft shall operate through bomb run corridor between 0' MSL and 5000' MSL. Minimum IFR altitude ough the bomb run corridor is 3500' MSL (the bomb corridor is 5 SM either side of centerline from 44°15' 75°05'W to 43°53'N, 75°41'W). After exiting the low el route at 43°53'N, 75°41'W aircraft shall turn right climb so as to cross 43°52'N, 75°48'W at 6000' MSL. intain 6000' MSL direct 44°00'N, 75°51'W; direct 10'N, 75°51'W, direct 44°27'N, 75°22'W; climb cross 44°30'N, 75°17'W at 13,000' MSL or below; cross 44°41'N, 74 58'W at 14,000' (Burlington, Vt. VOR 298 radial) cross 44 39'N, 74 45'W at 16,000' (Massena, N.Y. VOR 197 radial); cross 44°35'30"N, 74°21'W at FL 200; climb to cross 44°33'30"N, 74 09'W at FL 230, maintain FL 230 direct 44°24'N, 73°11'W (Burlington, Vt. VOR).

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43 53'N, 75 41'W; turn right and climb so as to cross 43 52'N, 75 48'W at 6000' MSL; maintain 6000' direct 44 00'N, 75 51'W; direct 44°10'N, 75 51'W direct 44°22'N, 75 30'W direct 44°34'N, 74°57'W at 6000' MSL; turn right to 44°34'N, 74°48'W descending to cross 44°26' N, 74°47'W at 3500' MSL, thence via the Clever Chap route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated between the following points: From 44 37'N, 74°30'W to 43°53'N, 75°41'W. During daylight hours some VFR operations will be flown 800' above the immediate terrain. The lower VFR altitude is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 290; descend, cross 44°11' N, 75 52'W at FL 250 or above; cross 44°16'N, 75°47'W at FL 240; direct 44 22'N, 75°42'W; cross 44°22'N, 75°30' W at FL 190. Cross 44°13'N, 75°12'W at 14,000' MSL; continue descend to cross 44°13'N, 74°41'W at 9000' MSL; maintain 9000' direct 44°13'N, 74°12'W; start descend, cross 44°13'N, 74 04'W at 7000' MSL; maintain 7000' MSL direct 44°20'N, 73 58'W, thence via the Clever Chap route.

Route Width—The entire low level route is reduced to 5 SM either side of centerline.

Hours of Operation—0000Z to 2359Z Monday through Sunday.

ALABAMA/MISSISSIPPI

• COIL SPRING

Revised Effective April 1, 1965

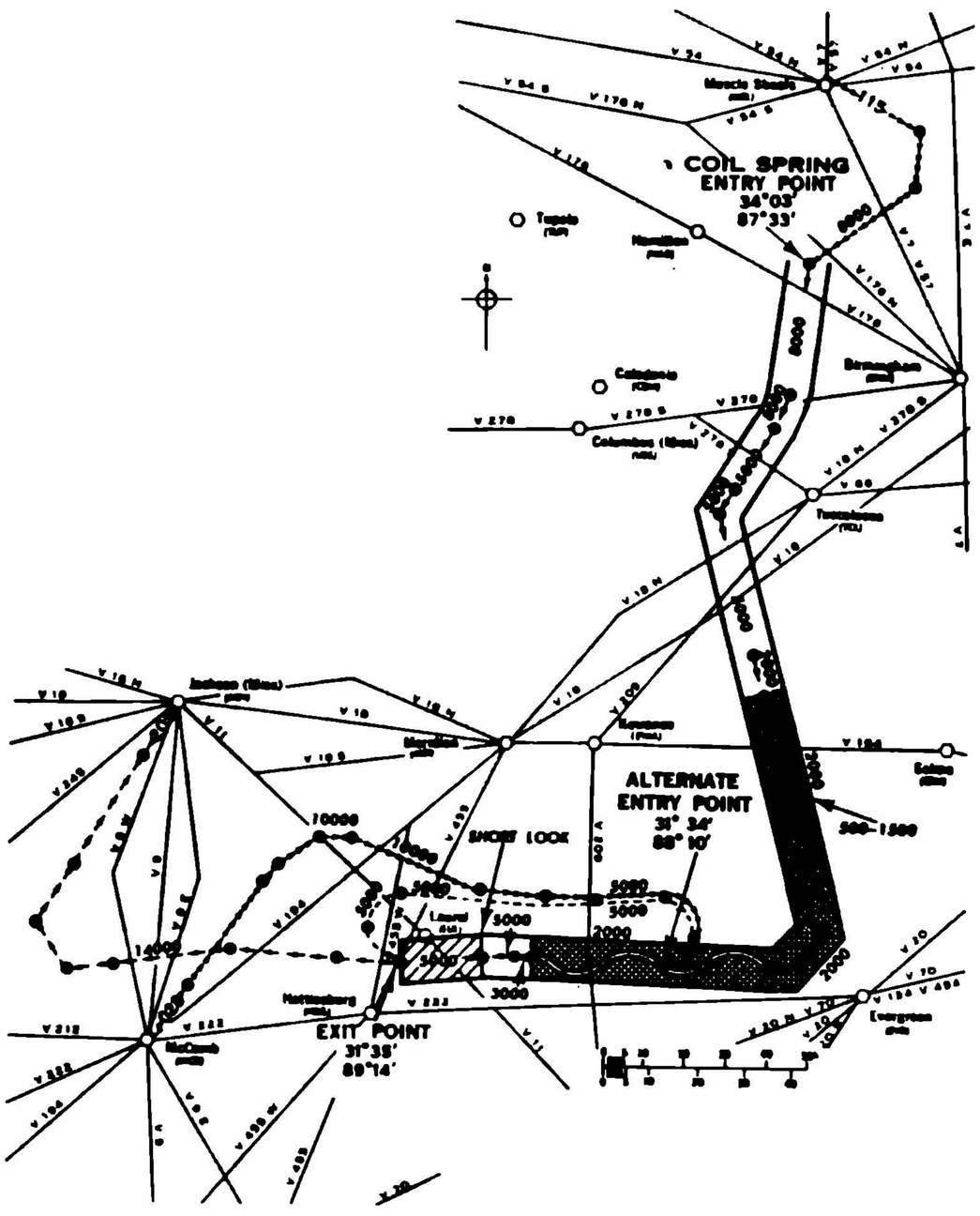
Aircraft shall cross Muscle Shoals, Alabama VOR at FL 200, or as assigned. Descend via Muscle Shoals VOR 115° radial, cross Muscle Shoals VOR 115°/24 NM at 12,000' MSL; turn right, descend to cross 34°19'N, 87°06'W at 8000' MSL, maintain 8000' MSL direct to the route entry point at 34°03'N, 87°33'W, direct 33°-35'N, 87°38'W, direct 33°28'N, 87°42'W; descend direct to cross 33°15'N, 87°52'W at 5000' MSL, maintain 5000' MSL direct 33°10'N, 87°56'W, direct 32°40'N, 87°48'W; descend to cross 32°31'N, 87°45'W at 2000' MSL, maintain 2000' MSL direct 31°41'N, 87°31'W, turn right to 31°33'N, 87°40'W, maintain 2000' MSL direct 31°36'N, 88°42'W; climb direct to cross 31°36'N, 88°46'W at 3000' MSL, direct to cross 31°36'N, 88°55'W at 5000' MSL. In addition to the above, aircraft may climb to 3000' MSL after 31°33'N, 87°40'W and maintain 3000' MSL to 31°36'N, 88°55'W during the hours 0600Z–1200Z.

Short Look—After passing 31°36'N, 88°55'W aircraft shall operate through the bomb run corridor at 5000' MSL. In addition, aircraft may operate through the bomb run corridor at 3000' MSL during the hours 0600Z–1200Z. (The bomb run corridor is 5 SM either side centerline from 31°36'N, 88°55'W to 31°35'N, 89°14'W.) After exiting the route at 31°35'N, 89°14'W, aircraft shall cross 31°36'N, 89°30'W at 5000' MSL; start climb direct to cross 31°37'N, 89°56'W at 14,000' MSL (reporting point), maintain 14,000' MSL direct 31°33'N,

90°25′W; start climb direct 31°32′N, 90°36′W, turn right to intercept Jackson, Miss. VORTAC 205° radial 56 NM fix (31°42′N, 90°44′W) at FL 200; maintain FL 200 via 205 radial to the 41 NM fix (31°55′N, 90°35′W); climb to cross the 16 NM fix at FL 250; maintain FL 250 (or flight level assigned) to Jackson VORTAC.

Re-Entry—Aircraft scheduled to execute an additional bomb run shall, after exiting the route at 31°35′N, 89°14′W, turn right, cross 31°42′N, 89°22′W at 5000′ MSL, maintain 5000′ MSL, turn right to 31°49′N, 89°-14′W, direct 31°48′N, 88°27′W; direct 31°48′N, 88°10′W; turn right, cross 31°40′N, 88°03′W at 3000′ MSL; continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 32°31′N, 87°-45′W to 31°36′N, 88°42′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.



Alternate Entry—Aircraft shall cross McComb, Miss. VOR (31°18′15″N, 90°15′29″W) at FL 230, or as assigned; maintain FL 230 or as assigned via the McComb VOR 028° radial to 13 NM fix; start descent, cross McComb VOR 028° radial 41 NM fix at 15,000′ MSL; cross 45 NM fix at 14,000′ MSL; turn right, cross 32°01′N, 89°35′W at 10,000′ MSL, maintain 10,000′ MSL, turn right, 32°01′N, 89°27′W, direct 31°49′N, 88°55′W; descend direct, cross 31°48′N, 88°39′W at 6000′ MSL; direct, cross 31°48′N, 88°27′W at 5000′ MSL, maintain 5000′ MSL direct 31°48′N, 88°10′W; turn right cross 31°40′N, 88°03′W at 3000′ MSL continue turn, cross 31°34′N, 88°10′W at 2000′ MSL; thence via the published route.

Route Width—The entire route is reduced to 5 SM either side of route centerline.

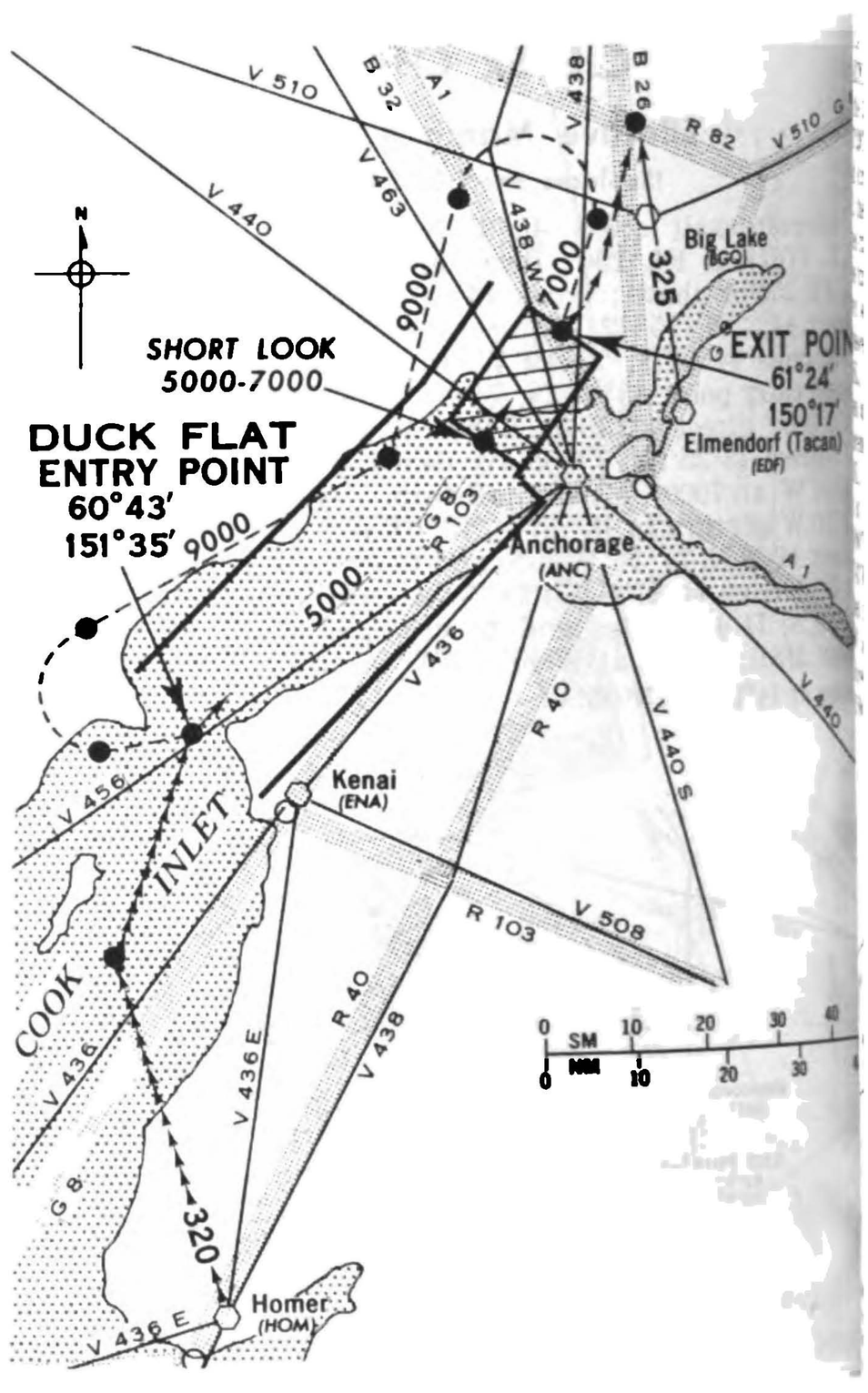
Hours of Operation—24 hours per day, 7 days a week.

DUCK FLAT

ALASKA

Effective June 16, 1963

Aircraft shall cross the Homer, Alaska VOR (reporting point) at FL 250 or as assigned by ARTCC, descend via the 320° radial of the Homer VOR to 60°20′N, 151°50′W continue descent to cross the route entry point at 60°43′N, 151°35′W at 5000′ MSL, maintain 5000′ MSL to 61°13′, 150°34′W.



Short Look—After passing 61°13′N, 150°34′W aircraft shall maintain between 5000′ MSL and 7000′ MSL through the bomb run corridor (5 smi either side centerline from 61°13′N, 150°34′W to 61°24′N, 150°17′W). After passing 61°24′N, 150°17′W (reporting point), the route exit point, aircraft shall climb to or maintain 7000′ MSL direct to the Elmendorf TACAN 325° radial 30 NM fix (Willow Intersection).

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 61°24′N, 150°17′W, main

n 7000' MSL to 61°35'N, 150°08'W, then turn left mbing to 9000' MSL direct to 61°38'N, 150°38'W, then 0' MSL to 61°13'N, 150°54'W, then 9000' MSL direct 53'N, 151°57'W, then a left descending turn to cross 41'N, 151°54'W at 7000' MSL or above, direct to re-y the Duck Flat route at 60°43'N, 151°35'W at 5000' SL.

oute Width—The route width is reduced to 5 smi southt of centerline from 61°13'N, 150°34'W to 61°24'N, °17'W.

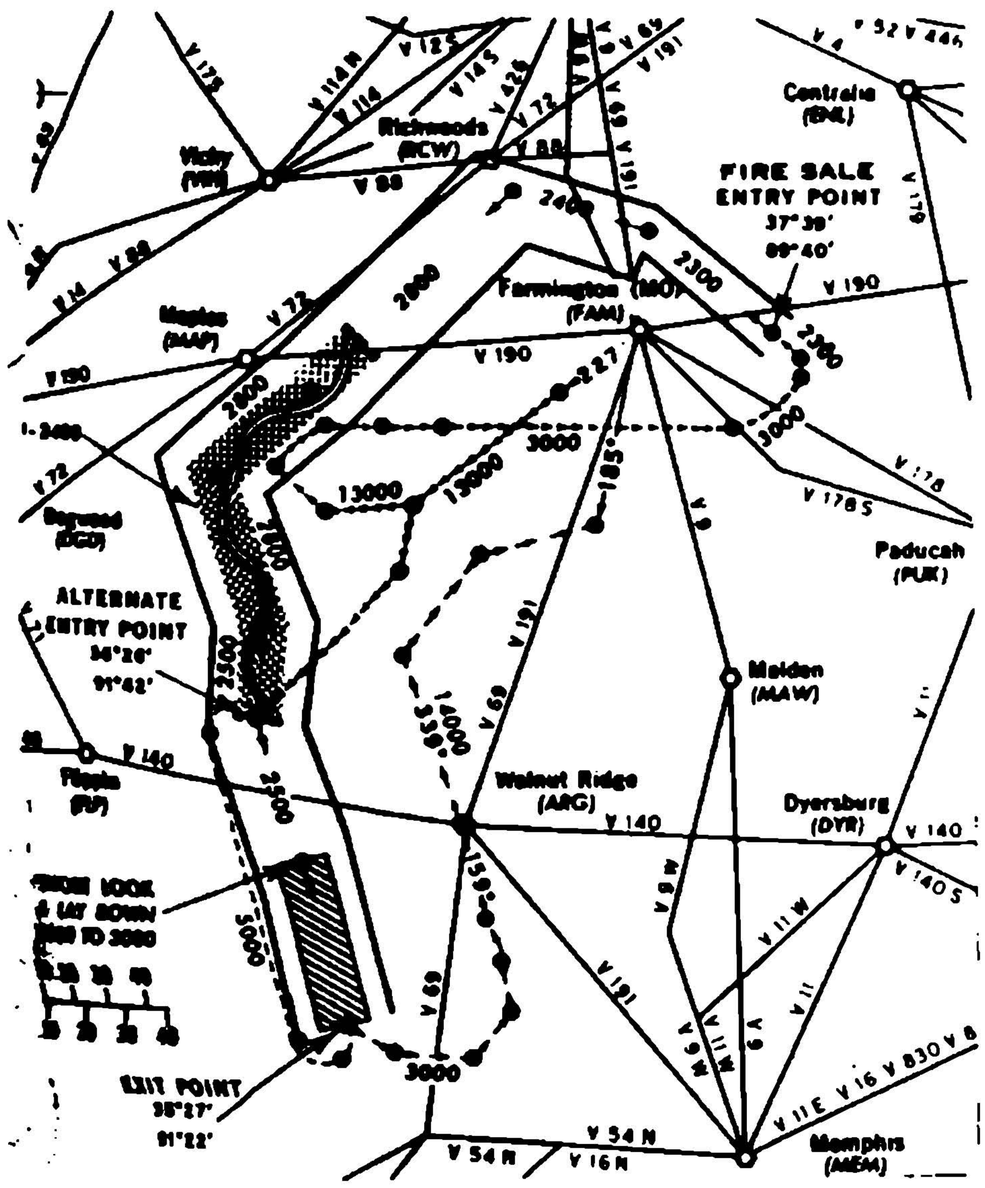
ours of Operation—2000Z to 2400Z Monday through day.

ARKANSAS/MISSOURI

FIRE SALE

Effective April 1 thru September 25, 1965

ircraft shall cross the Farmington, Missouri, VORC (37°40'24"N, 90°14'02"W) at FL 240, or as assed by ARTC; then at FL 240, or assigned altitude, ceed via the 227° radial of the Farmington VORTAC ct to 37°29'N, 90°33'W (227/18 NM DME FIX); n descend direct so as to cross 37°08'N, 91°07'W at 00' MSL; then at 13,000' MSL turn right to 37°07'N, 28'W; then turn right descending to 37°15'N, 91°38'W; n continue turn descending to 37°23'N, 91°28'W; then cend direct so as to cross 37°23'N, 91°13'W at 6000' L; then descend direct so as to cross 37°23'N, 91°00'W 3000' MSL, then at 3000' MSL direct to 37°22'N, 50'W; then at 3000' MSL turn left to 37°32'N, 89°34' then descend direct so as to cross 37°35'N, 89°34'W 300' MSL; then at 2300' MSL direct to the route y point at 37°39'N, 89°40'W; then at 2300' MSL ct to 38°00'N, 90°10'W; then at 2400' MSL direct to 8'N, 90°43'W; then at 2800' MSL direct to 37°30'N, 0'W; then at 2800' MSL direct to 37°13'N, 91°54'W; n at 2800' MSL direct to 36°45'N, 91°39'W; then at ' MSL direct to 36°26'N, 91°42'W; then at 2500' MSL ct to 36°00'N, 91°33'W.



Short Look and Lay Down—After passing 36°00'N, 91°-33'W, aircraft shall maintain between 2000' MSL and 3000' MSL through the bomb run corridor (5 SM either side of centerline from 36°00'N, 91°33'W to 35°27'N, 91°22'W). After exiting the route at 35°27'N, 91°22'W, aircraft shall turn left and climb so as to cross or maintain 3000' MSL to 35°23'N, 91°12'W; then at 3000' MSL to 35°22'N, 90°54'W; then start climb so as to intercept the 159° radial of the Walnut Ridge VOR (35°30'N, 90°45'W) at 7000' MSL; then climb via the inbound 159° radial of the Walnut Ridge VOR so as to cross the 28 NM fix (35°40'N, 90°48'W) at 11,000' MSL or above; then via the 159° radial climb so as to cross the 19 NM fix (35°48'N, 90°51'W) at 14,000' MSL; then at 14,000' MSL via the 159° radial inbound and the 339° radial outbound direct to the 33 NM fix (36°39'N, 91°08'W); then start climb so as to cross 36°58'N, 90°51'W at FL 200; then climb so as to cross 37°04'N, 90°23'W (FAM 185/37) at FL 250.

Ren-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run, shall after passing 35°27'N, 91°22'W, turn right and climb so as to cross or maintain 3000' MSL to 35°21'N, 91°24'W; continue turn and climb so as to cross 35°24'N, 91°34'W at 5000' MSL; then at 5000' MSL direct 36°24'N, 91°54'W; then turn right descending so as to cross 36°26'N, 91°42'W at 2500' MSL; thence via the published route .

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 37°40'N, 91°18'W to 36°26'N, 91°42'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached during daylight hours.

Alternate Entry—Aircraft shall cross the Farmington, Missouri, VORTAC at FL 240, or as assigned by ARTC; maintain FL 240, or assigned altitude, via the Farmington VORTAC 227° radial to the 18 NM DME fix (37°29'N, 90°33'W); then descend direct so as to cross 37°08'N, 91°07'W at 13,000' MSL; then at 13,000' MSL turn left to 36°55'N, 91°08'W; then right turn descending so as to cross 36°26'N, 91°42'W at 2500' MSL; thence via the published route.

Route Width—The route width is reduced to 5 SM on both sides of the centerline from 37°39'N, 89°40'W to 38°00'N, 90°10'W, and on the north side of centerline from 38°00'N, 90°10'W, to 38°08'N, 90°43'W.

Hours of Operation—24 hours daily, 7 days per week.

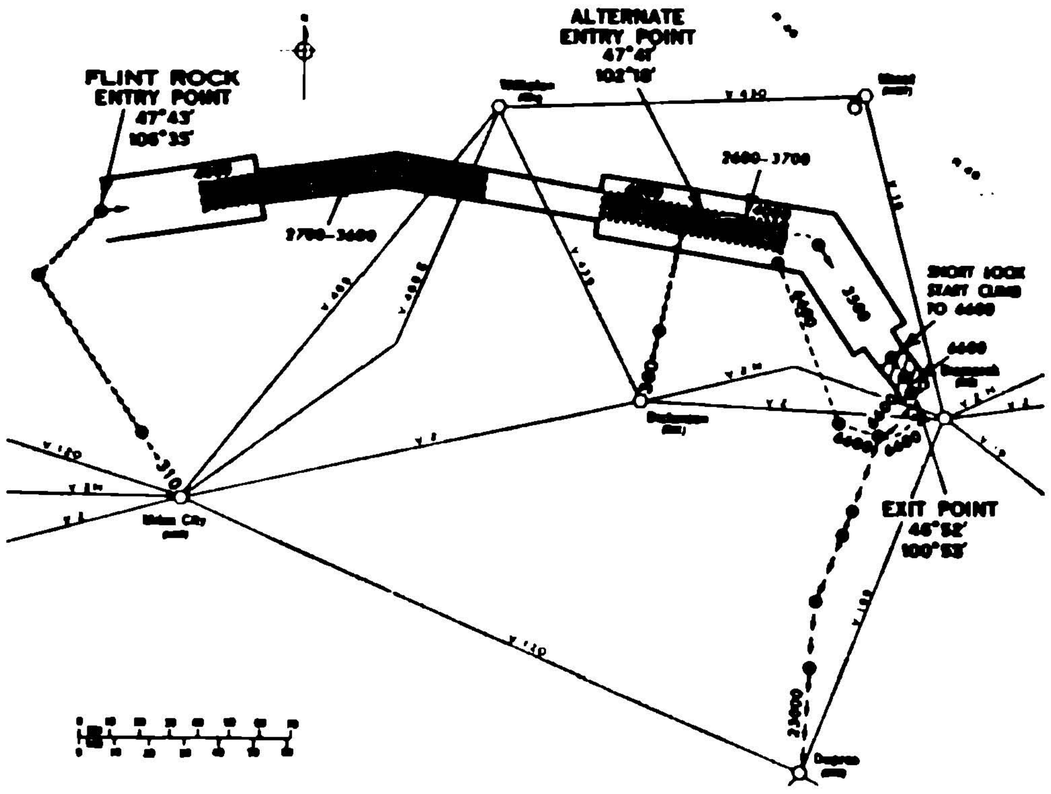
FLINT ROCK

MONTANA/NORTH DAKOTA

Revised Effective June 14, 1964

Aircraft shall cross the Miles City, Montana VORTAC (reporting point) at FL 230, or as assigned by ARTCC, and proceed via the 310° radial, maintaining FL 230 or as assigned, to 46°40'N, 106°14'W; then descend to cross 47°24'N, 107°00'W at or above 6000' MSL; then continue descent so as to cross the route entry point, 47°43'N, 106°35'W, at 4000' MSL; then at 4000' MSL direct 47°57'N, 104°30'W; then at 4000' MSL direct 47°35'N, 101°31'W; then descend to 3500' MSL direct 47°02'N, 101°02'W.

Short Look—After passing 47°02′N, 101°02′W aircraft shall climb so as to cross 46°56′N, 100°56′W at 6600′ MSL; then at 6600′ MSL direct to the exit point 46°52′N, 100°53′W (bomb run corridor 5 SM either side of centerline from 47°02′N, 101°02′W to the exit point 46°52′N, 100°53′W); then maintaining 6600′ MSL turn right direct 46°39′N, 101°07′W; then start climb to FL 230 direct to 45°53′N, 101°35′W; direct to Dupree VORTAC, climbing so as to cross 46°19′N, 101°19′W at or above 11,000′ MSL, crossing 46°13′N, 101°23′W at or below FL 190; crossing 45°53′N, 101°35′W at FL 210, and to reach FL 230 at a point 30 nautical miles northeast of the Dupree VORTAC.



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an aditional Short Look bomb run shall, after passing 46°52′N, 100°53′W maintain 6600′ MSL direct 46°39′N, 101°07′W; then at 6600′ MSL make a right turn direct to 46°43′N, 101°24′W: then at 6600′ MSL direct 47°30′N, 101°49′W: then a right decending turn so as to reenter the route at 47°-35′N, 101°31′W at 3500′ MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 105°53′W to 47°53′N, 103°53′W and from 47°47′N, 103°03′W to 47°37′N, 101°45′W. During daylight hours some VFR operations will be flown 800′ above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Dickinson, No. Dakota VORTAC (reporting point) at 15,000′ MSL, or as assigned by ARTCC; then proceed via the 360° radial of Dickinson VORTAC at 15,000′ MSL, or assigned flight level/altitude, direct to a point 20 NM north of the Dickinson VORTAC; then descend so as to cross 47°42′-30′′N, 102°27′W at 6000′ MSL; then a descending right turn so as to cross 47°41′N, 102°18′W at 4000′ MSL, thence via the published route.

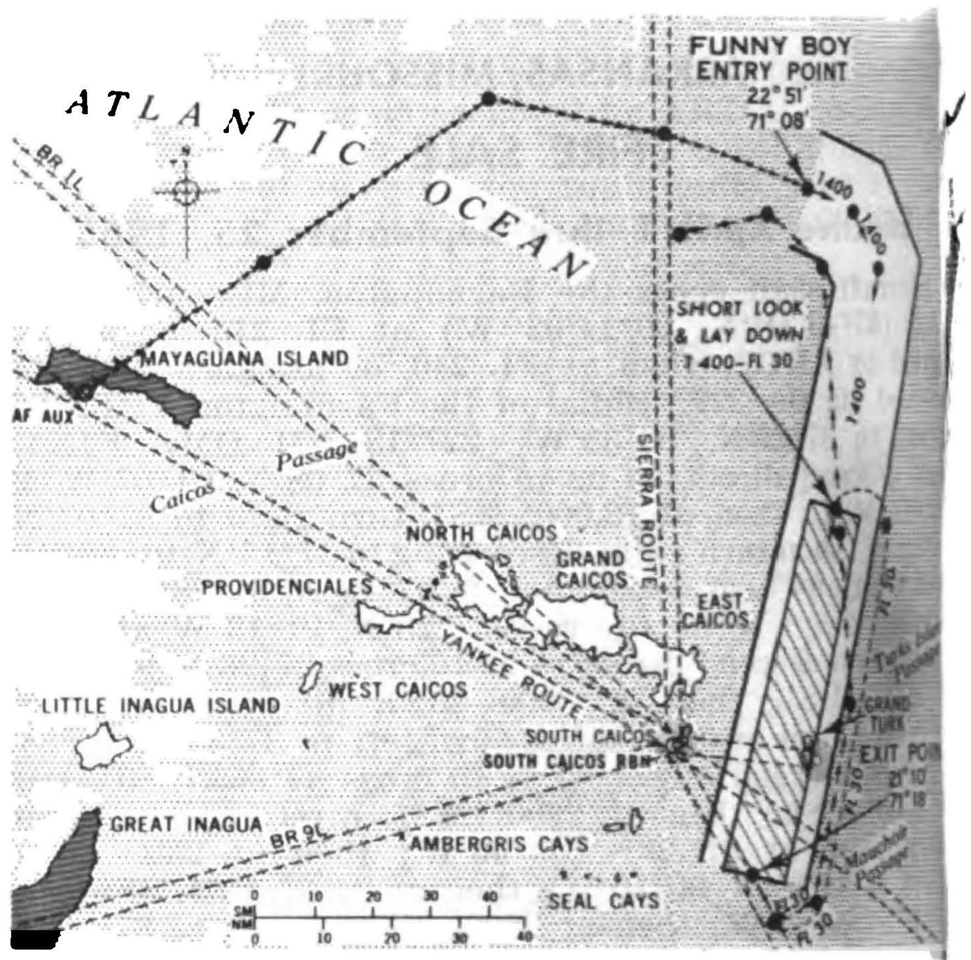
Route Width—The route width is reduced to 5 SM on either side of centerline from 47°50′N, 105°30′W to 47°-47′N, 103°03′W and from 47°07′N, 101°06′W to 46°52′N, 100°53′W.

Hours of Operation—0000Z to 2400Z, 7 days weekly.

FUNNY BOY

Revised Effective March 4, 1965

Aircraft shall cross 22°23′N, 73°02′W (Mayagua AFB) at FL 270 or as assigned; maintain FL 270 or assigned 22°41′N, 72°35′W (reporting point); start scent, cross 23°05′N, 72°00′W at FL 150; right tu cross 23°00′N, 71°33′W at FL 90 or below; cross 22°51′ 71°08′W at 1400′ MSL (the route entry point); maint 1400′ MSL direct 22°48′N, 70°58′W; turn right 22°39′N, 70°53′W; direct 22°04′N, 71°03′W.



Short Look and Lay Down—After passing 22°04′N, 7 03′W, aircraft shall maintain between 1400′ and FL through the bomb run corridor (5 SM either side of c terline from 22°04′N, 71°03′W to 21°10′N, 71°18′W After exiting the route at 21°10′N, 71°18′W, aircra shall turn left, cross 21°03′N, 71°14′W at FL 30; ma tain FL 30 to 21°06′N, 71°08′W, direct 21°35′N, 71°00′ start climb, cross 22°00′N, 71°02′W at FL 110 or abo cross 22°40′N, 71°06′W at FL 250 or above; left turn 22°48′N, 71°16′W; cross 22°45′N, 71°30′W at FL 290 as assigned.

Re-Entry—After completing the initial bomb run, craft scheduled to execute an additional bomb run sh after exiting the low level route at 21°10′N, 71°18′ turn left cross 21°03′N, 71°14′W at FL 30; maintain 30 to 21°06′N, 71°08′W; direct 22°01′N, 70°53′W; t left descend to cross 22°04′N, 71°03′W at 1400′; the via the published route.

Hours of Operation—0000Z to 2359Z Monday thro Saturday.

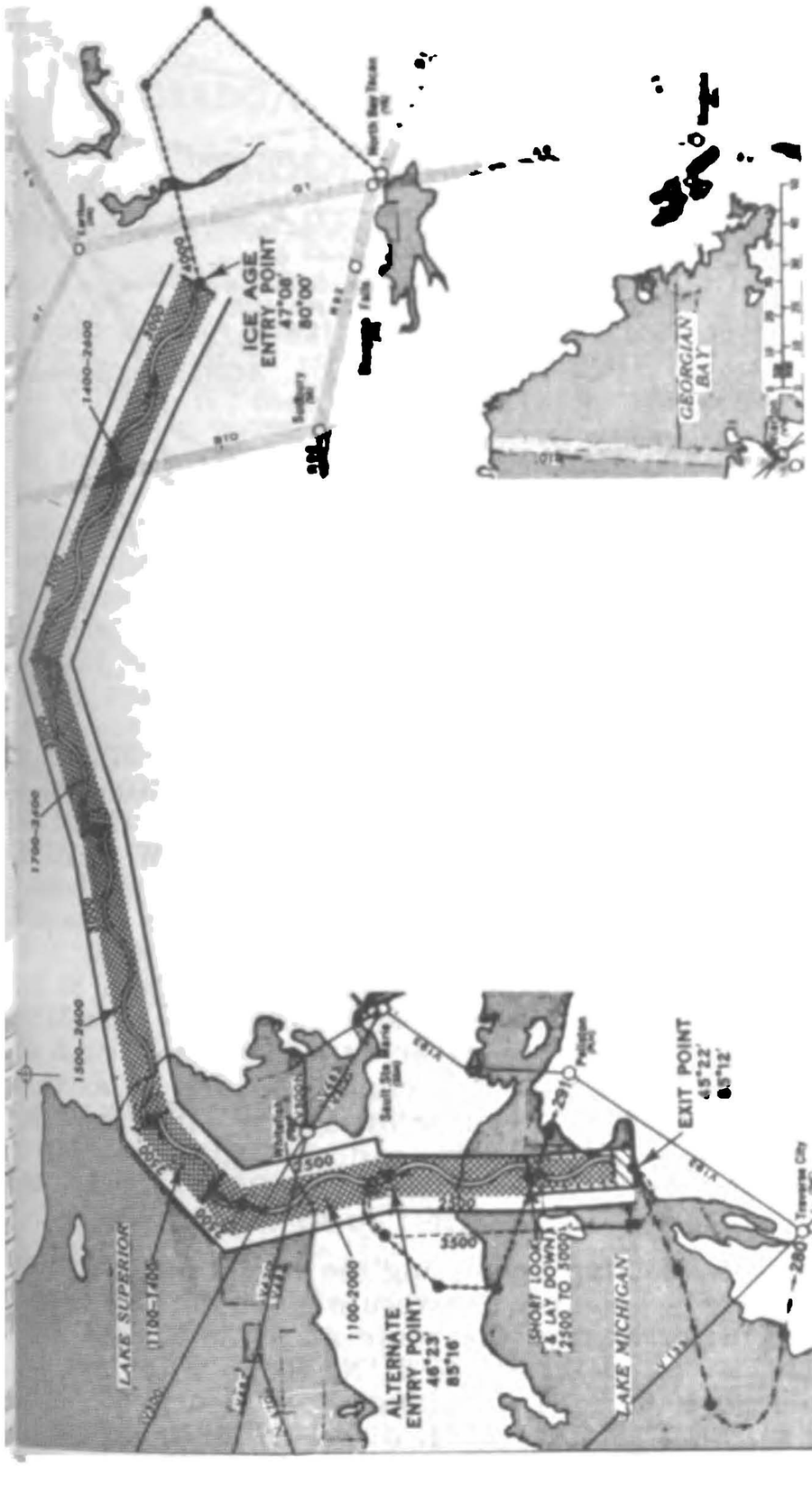
MICHIGAN/ONTARIO, CAN.

ICE AGE

Revised Effective September 6, 1964

Start descent over North Bay Ont. TACAN from 250 or as otherwise assigned to 17,000′ MSL direct 04′N, 78°25′W, descend to 10,000′ MSL direct to 47° 78°49′W, descend to 4000′ MSL direct to 47°15′N, 25′W, maintain 4000′ MSL direct to low level entry po at 47°08′N, 80°00′W (aircraft shall maintain an altit below 3500′ AGL on the low level route while in Ca

an airspace), descend so as to cross 47°22′N, 80°35′W 3000′ MSL, then maintain 3000′ MSL direct 47°58′N, °15′W, then at 3000′ MSL direct to 47°40′N, 83°16′W, en at 3000′ MSL direct 47°23′N, 85°00′W, then de- end direct 47°06′N, 85°22′W at 2500′ MSL (termina- n of Canadian portion of route). Aircraft shall enter e U.S.A. at 47°06′N, 85°22′W at 2500′ MSL, direct °00′N, 85°30′W at 2500′ MSL, direct 46°23′N, 85°16′W 2500′ MSL, direct 45°48′N, 85°15′W at 2500′ MSL.



Short Look and Lay Down—After passing 45°48′N, 85°- W aircraft shall maintain between 2500′ MSL and 0′ MSL through the bomb run corridor (5 SM either e of centerline from 45°48′N, 85°15′W to 45°22′N, 12′W. The minimum IFR altitude through the bomb corridor is 2500′ MSL); after passing 45°22′N, 85°- W then turn right climbing so as to cross 45°10′N, 47′W at 10,000′ MSL; then climb direct so as to cross 01′N, 86°33′W at 12,000′ MSL. Turn left to intercept ° radial of the Traverse City VOR climbing so as to ss Traverse City VOR 280/25 at FL 210. Continue mbing via the Traverse City VOR 280° radial so as to ss the Traverse City VOR at FL 250.

e-Entry—After completing the initial bomb run, air- ft that are scheduled to execute an additional bomb shall, after exiting the route at 45°22′N, 85°12′W n right climbing so as to cross 45°21′N, 85°32′W at 00′ MSL, then at 3,500′ MSL direct to 46°23′N, 85°- 37′W; then turn right descending so as to cross 46°23′N, 85°16′W at 2500′ MSL; thence via the "Ice Age" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°08′N, 80°00′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Michigan VOR at FL 200, or as asigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at FL 200 or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30′′N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ice Age" route.

Route Width—The route width is reduced to 5 statute miles east of centerline from 46°23′N, 85°16′W to 45°- 22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

NEVADA

• LITTLE SATIN

Revised Effective April 5, 1965

Aircraft shall cross 41°40′N, 115°49′W (Elko VOR-TAC 340°/55 NM DME fix) (reporting point) at FL 230 or as assigned by ARTCC; then descend direct to cross the route entry point, 40°59′N, 116°30′W (Battle Mountain VOR 019°/31) at 14,000′ MSL, then 14,000′ MSL direct 40°10′N, 116°17′W; then descend to 13,000′ MSL direct 39°42′N, 116°10′W, then 13,000′ MSL direct 38°57′N, 116°26′W, then 13,000′ MSL direct 38°34′N, 116°40′W, then 13,000′ MSL direct 38°31′N, 118°12′W.

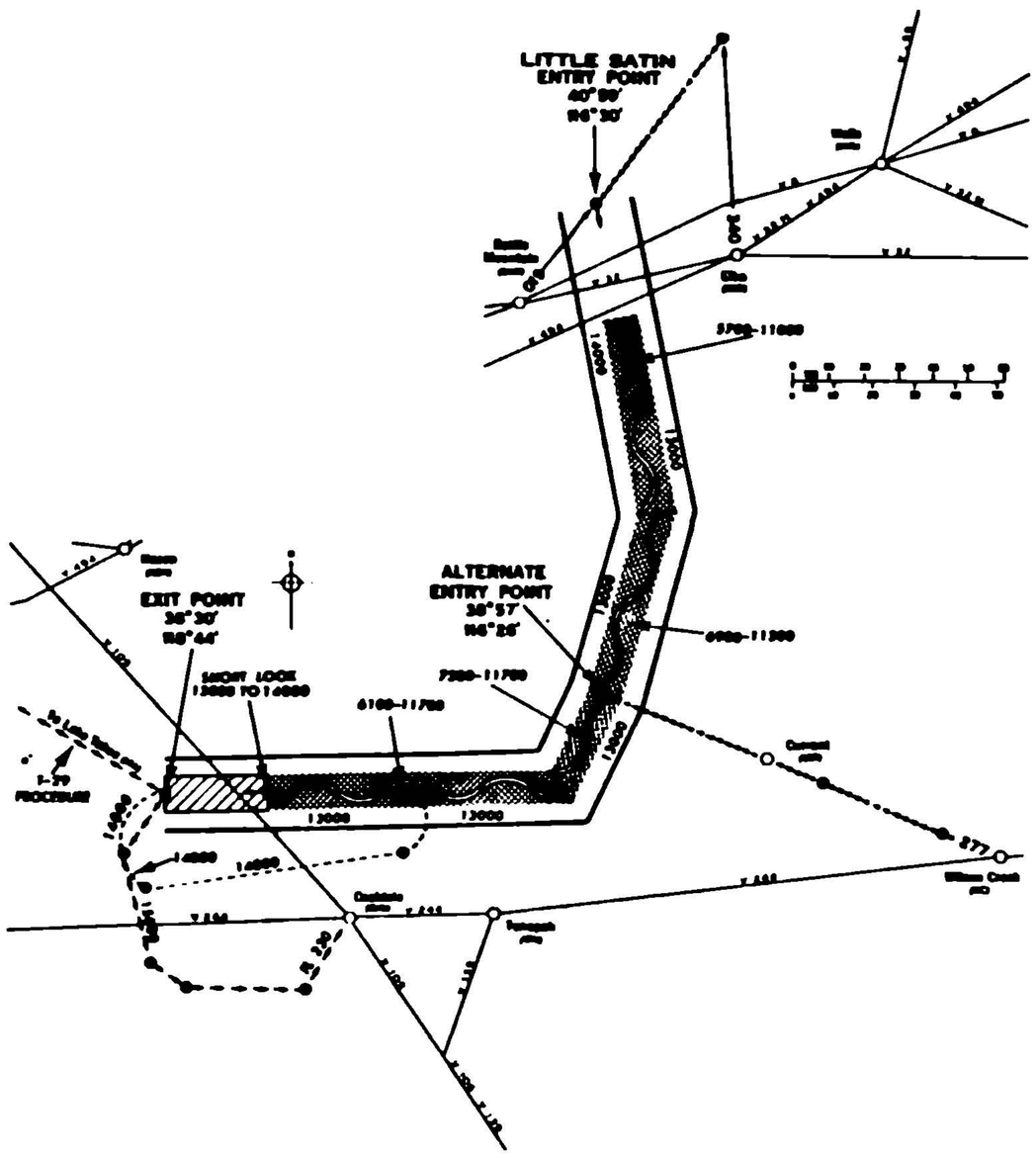
Short Look—After passing 38°31′N, 118°12′W aircraft shall operate between a maximum altitude of 14,000′ MSL and a minimum of 13,000′ MSL thru the bomb run corridor (5 SM either side of centerline from 38°31′N, 118°12′ W to 38°30′ N, 118°44′ W). After exiting the route at 38°30′N, 118°44′W aircraft shall start climb to cross 38°15′N, 118°57′W at 15,000′ MSL; then maintain 15,000′ MSL direct 37°48′N, 118°48′W; then climb so as to cross 37°42′N, 118°36′W at or above 17,000′ MSL; then climb direct to cross 37°42′N, 118°00′W at FL 230; then direct to the Coaldale, Nev. VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°30′N, 118°44′W, maintain 14,000′ MSL direct 38°15′N, 118°57′W, then 14,000′ direct 38°06′N, 118°50′W direct 38°17′N, 117°30′W; then descend direct to cross 38°32′N, 117°35′W at 13,000′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 40°30′N, 116°22′W to 38°31′N, 118°12′W. During daylight hours some VFR

operations will be flown 800′ above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Wilson Creek, Nevada VOR (reporting point) at FL 230 or as assigned by ARTCC, then maintain assigned flight level via the Wilson Creek VOR 277° radial until 15 NM northwest of the Wilson Creek VOR (38°21′N, 114°41′W); then descend direct to cross 38°34′N, 115°18′W at or below 15,000′ MSL; then descend direct via the Currant, Nev. VOR to cross 38°57′N, 116°26′W at 13,000′ MSL, thence via the published route.



I–29 Procedure—Aircraft shall cross Wilson Creek, Nevada, VOR (38°15′N, 114°23′W) (reporting point) as assigned by the ARTCC; then proceed via alternate entry route to 38°30′N, 118°44′W exit point of the bomb run corridor; then climb to 14,000′ MSL or as assigned by the ARTCC direct Lake Tahoe, California, VOR (39°11′ N, 120°16′W).

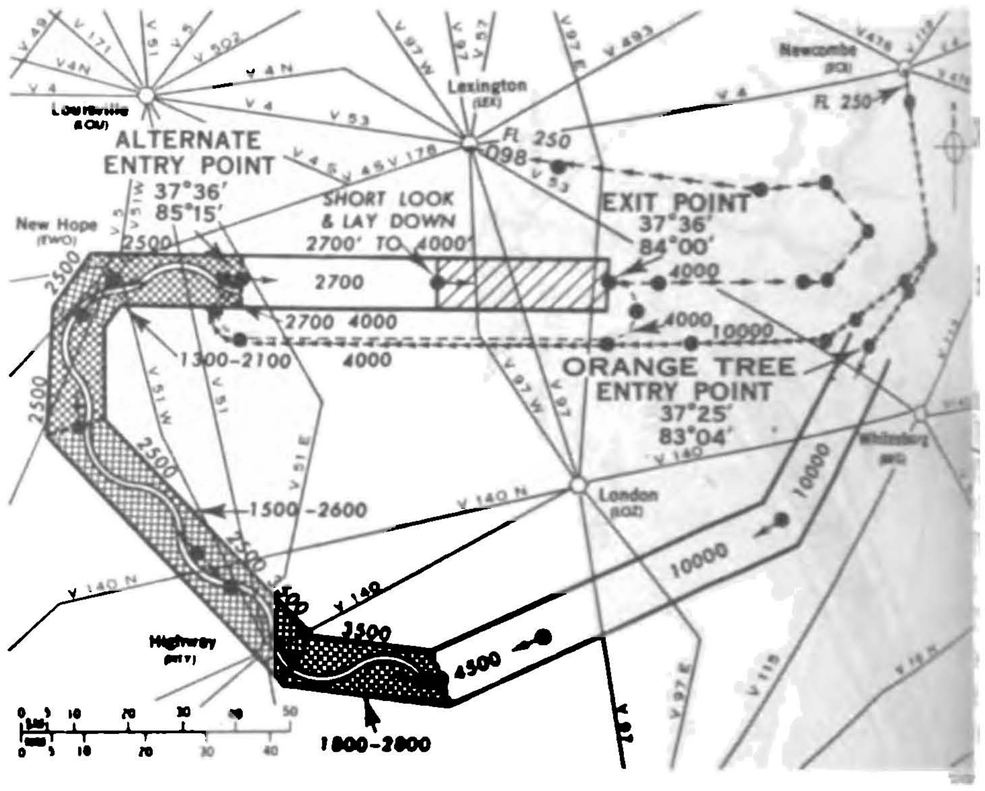
Hours of Operation—24 hours daily, 7 days a week.

KENTUCKY/TENNESSEE

ORANGE TREE

Revised Effective November 1, 1964

Aircraft shall cross the Newcomb, Kentucky VOR at FL 250; maintain FL 250 direct 38°05′N, 82°53′W; then start descend so as to cross 37°41′N, 82°48′W at 17,000′ MSL; cross 37°34′N, 82°55′W at 14,000′ MSL; then continue descent so as to cross the route entry point at 37°25′N, 83°04′W at 10,000′ MSL, then at 10,000′ MSL direct 36°57′N, 83°25′W, then at 10,000′ MSL direct 36°38′N, 84°13′W; then start descent so as to cross 36°-31′N, 84°33′W at 4500′ MSL; then descend so as to cross 36°31′N, 84°36′W at 3500′ MSL, then at 3500′ MSL direct 36°34′N, 84°03′W, then at 3500′ MSL direct 36°46′N, 85°16′W; then descend so as to cross 36°51′N, 85°27′W at 2500′ MSL, then at 2500′ MSL direct 37°11′N, 85°47′W, then at 2500′ MSL direct 37°30′N, 85°46′W, then at 2500′ MSL turn right to 37°35′N, 85°42′W, then at 2500′ MSL direct 37°36′N, 85°17′W; then climb so as to cross 37°36′N, 85°15′W at 2700′ MSL, then at 2700′ MSL direct to 37°36′N, 84°35′W.



Short Look and Lay Down—After passing 37°36′N, 84° 35′W aircraft shall maintain between 2700′ MSL and 4000′ MSL through the bomb run corridor (5 SM either side of centerline from 37°36′N, 84°35′W to 37°36′N, 84°00′W; the minimum IFR altitude thru the bomb run corridor is 2700′ MSL). After exiting the route at 37°-36′N, 84°00′W aircraft shall cross 37°36′N, 83°50′W at 4000′ MSL; then at 4000′ MSL direct 37°36′N, 83°20′W, then start climb direct 37°36′N, 83°15′W; cross 37°47′N, 83°05′W at or below 9000′ MSL; continue climb direct 37°52′N, 83°15′W; then climbing direct so as to cross 37°51′N, 83°30′W at or below 17,000′ MSL; then via the Lexington VORTAC 098° radial climbing so as to cross 37°56′N, 84°11′W (Lexington VORTAC 098/14) at FL 250, then at FL 250 direct to Lexington VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 37°36′N, 84°00′W, turn right so as to cross 37°31′N, 83°55′W at 4000′ MSL, then at 4000′ MSL continue right turn to 37°26′N, 84°-00′W, then at 4000′ MSL direct 37°26′N, 85°15′W; then turn right descending so as to cross 37°31′N, 85°20′W at 2700′ MSL, then at 2700′ MSL continue right turn to 37°36′N, 85°15′W, thence via the "ORANGE TREE" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′ visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 36°31′N, 84°33′W to 37°36′N, 85°15′W. During daylight hours some VFR operations will be flown 800′ above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Newcomb, KY VOR at FL 250, then at FL 250 direct 38°05′N, 82°53′W, then start descent so as to cross 37°41′N, 82°48′W at 17,000′ MSL; cross 37°35′N, 82°56′W at 14,000′ MSL; cross 37°29′N, 83°08′W at 10,000′ MSL; then at 10,000

SL direct 37°26′N, 83°15′W; direct 37°26′N, 83°42′W; en start descent so as to cross 37°26′N, 84°00′W at 00′ MSL; then at 4000′ MSL direct to 37°26′N, 85°-′W; then turn right descending so as to cross 37 31′N, °20′W at 2700′ MSL; then at 2700′ MSL direct to °36′N, 85°15′W; thence via the established route.

Route Width—The route width is reduced to 5 statute les on either side of centerline throughout the entire ute.

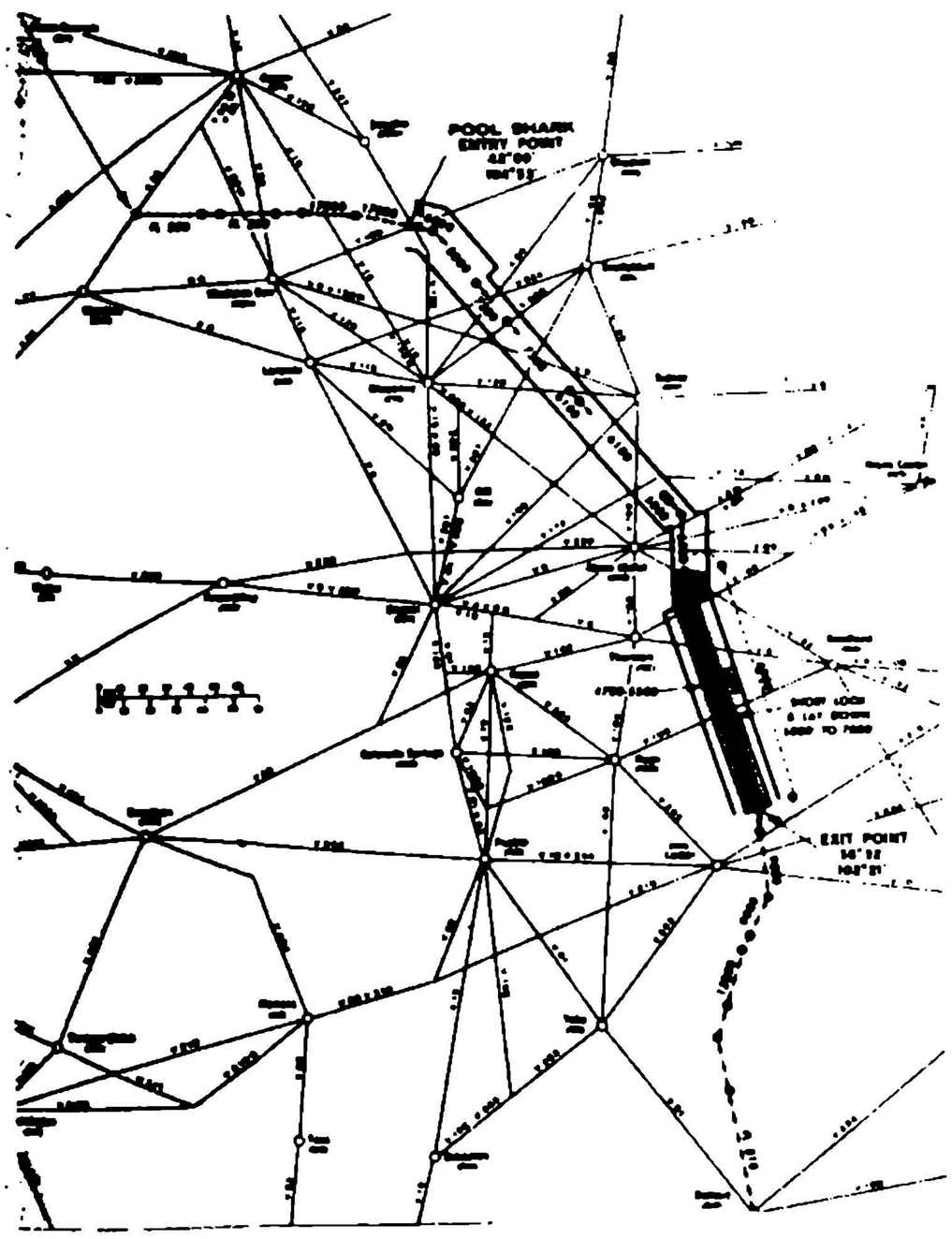
Hours of Operation—0000Z to 2400Z, 7 days weekly.

COLORADO/NEBRASKA/WYOMING

•POOL SHARK

Revised Effective March 18, 1965 through June 26, 1965

Aircraft shall cross 42°14′N, 107°07′W (Boysen Reser-L, Wyo. VORTAC 130/90) at FL 220; then direct °14′N, 106°35′W; then descend direct to cross 42°14′N, °26′W at FL 200; then maintain FL 200 direct 42°-′N, 105°59′W; then descend direct to cross 42 14′N, °46′W at 17,000′ MSL; then maintain 17,000′ MSL ect 42°13′N, 105°20′W, then maintain 17,000′ MSL ect to the route entry point at 42°09′N, 104°53′W, n descend direct to cross 42°07′N, 104°42′W at 16,000′ SL; then descend direct to cross 41°47′N, 104°22′W at 0′ MSL; then descend direct to cross 41°33′N, 104°-W at 7300′ MSL; then direct 41°07′N, 103°39′W; n descend direct to cross 41°03′N, 103°35′W at 6100′ SL; then 6100′ MSL direct to 40°27′N, 102°57′W then scend direct so as to cross 40°25′N, 102°55′W at 5800′ MSL then at 5800′ MSL direct to 40°20′N, 102°49′W; then 5800′ MSL direct 39°47′N, 102°49′W; then 5800′ MSL direct 39°05′N, 102°33′W.



Short Look and Lay Down—After passing 39°05′N, 102°-33′W, aircraft shall maintain between 5800′ MSL and 7000′ MSL through the bomb run corridor (5 SM either side of centerline from 39°05′N, 102°33′W to 38°32′N, 102°21′W). After exiting the route at 38°32′N, 102°-21′W; aircraft shall climb direct to cross 38°24′N, 102°-20′W at 9000′ MSL; then maintain 9000′ MSL direct 37°59′N, 102°18′W; then 9000′ MSL direct 37°45′N, 102°27′W; then climb direct to cross 37°40′N, 102°31′W at 12,000′ MSL; then 12,000′ MSL direct 37°20′N, 102°-39′W; then climb direct to cross 37°09′N, 102°44′W at or above 16,000′ MSL; then climb direct to cross 36°-49′N, 102°40′W at FL 210; then maintain FL 210 direct to Dalhart, Texas, VORTAC.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°32′N, 102°21′W, turn left to cross 38°35′N, 102°04′W at 6000′ MSL; then 6000′ MSL direct to 40°00′N, 102°31′W; then turn left to cross 40°00′N, 102°49′W at 5800′ MSL, thence via the published route.

Alternate Entry—None.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart bewteen the following points 40°00′N, 102°49′W to 38°-32′N, 102°21′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown is the minimum altitude that will be reached on each route segment during daylight hours.

Route Width—The route width is reduced to 5 SM on the NE side of the centerline from 41°47′N, 104°22′W to 40°20′N, 102°49′W, and to 5 SM on the west side of centerline from 40°20′N, 102°49′W to 39°47′N, 102°49′W.

Hours of Operation—24 hours daily, 7 days per week.

TEXAS

•SEA HORSE

Revised Effective April 1, 1965

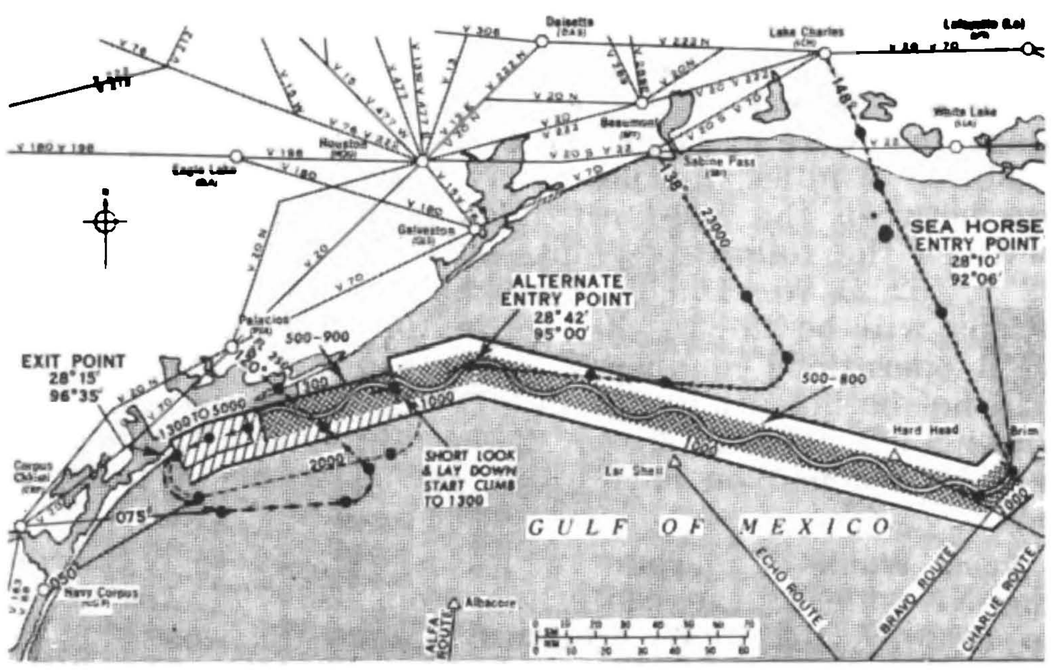
Aircraft shall cross the Lake Charles, La., VOR at 23,000′ MSL, or as assigned; maintain 23,000′ MSL or as assigned via the Lake Charles VOR 148° radial to to 25 NM fix; start descent, cross 29°31′N, 92°47′W at 19,000′ MSL, descend direct to cross 28°55′N, 92°28′W at 15,000′ MSL, descend direct to cross 28°28′N, 92°15′W at 8000′ MSL or below, descend direct to cross 28°10′N, 92°06′W at 1000′ MSL (Low level entry point). Maintain 1000′ MSL, turn right to 28°03′N, 92°16′W, direct to 28°42′N, 95°00′W, direct to 28°35′N, 95°25′W.

Short Look and Lay Down—After passing 28°35′N, 95°-25′W climb to 1300′ MSL direct 28°23′N, 96°12′W. After passing 28°23′N, 96°12′W aircraft shall maintain between 1300′ and 5000′ MSL through the bomb run corridor (5 SM either side of centerline from 28°23′N, 96°12′W direct 28°20′N, 96°25′W direct 28°15′N, 96° 35′W). (The minimum IFR altitude through the bomb run corridor is 1300′ MSL) to 28°15′N, 96°35′W, the route exit point, turn left to 28°04′N, 96°30′W, direct to 28°00′N, 96°21′W to intercept the Corpus Christi, Texas, VORTAC 075 radial. Climb via the Corpus Christi VORTAC 075 radial to cross 28°03′N, 95°41′W, at or below 17,000′ MSL; turn left to intercept the Palacios, Texas, VORTAC 120 radial, continue climb via the Palacios VORTAC 120 radial to cross the Palacios

VORTAC 120/35 at or below FL 230, continue climb via the 120 radial to cross the Palacios VORTAC 120/18 at FL 250, maintain FL 250 to the Palacios VORTAC.

Re-Entry—After completing the initial Short Look bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 28°15′N, 96°-35′W turn left to intercept the Navy Corpus VOR 050° radial at 2000′ MSL, maintain 2000′ MSL direct 28°-22′N, 95°26′W; turn left descending so as to cross 28°-35′N, 95°25′W at 1300′ MSL, thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 28°10′N, 92°06′W to 28°24′N, 96°09′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached during daylight hours.



Alternate Entry—Aircraft shall cross the Sabine Pass VOR at FL 230 or as assigned, then via Sabine Pass VOR 138° radial maintaining FL 230 until the 47 NM fix (29°02′N, 93°33′W). Start descent direct to cross 28°44′N, 93°19′W at 16,000′ MSL turn right, descend to cross 28°37′N, 93°58′W at 4000′ MSL; descend direct to cross 28°39′N, 94°21′W at 1000′ MSL direct 28°42′N, 95°00′W thence via published route.

Route Width—The route width is reduced to 5 SM north of the centerline from 28°35′N, 95°25′W to 28°15′N, 96°35′W.

Hours of Operation—24 hours daily, seven days per week.

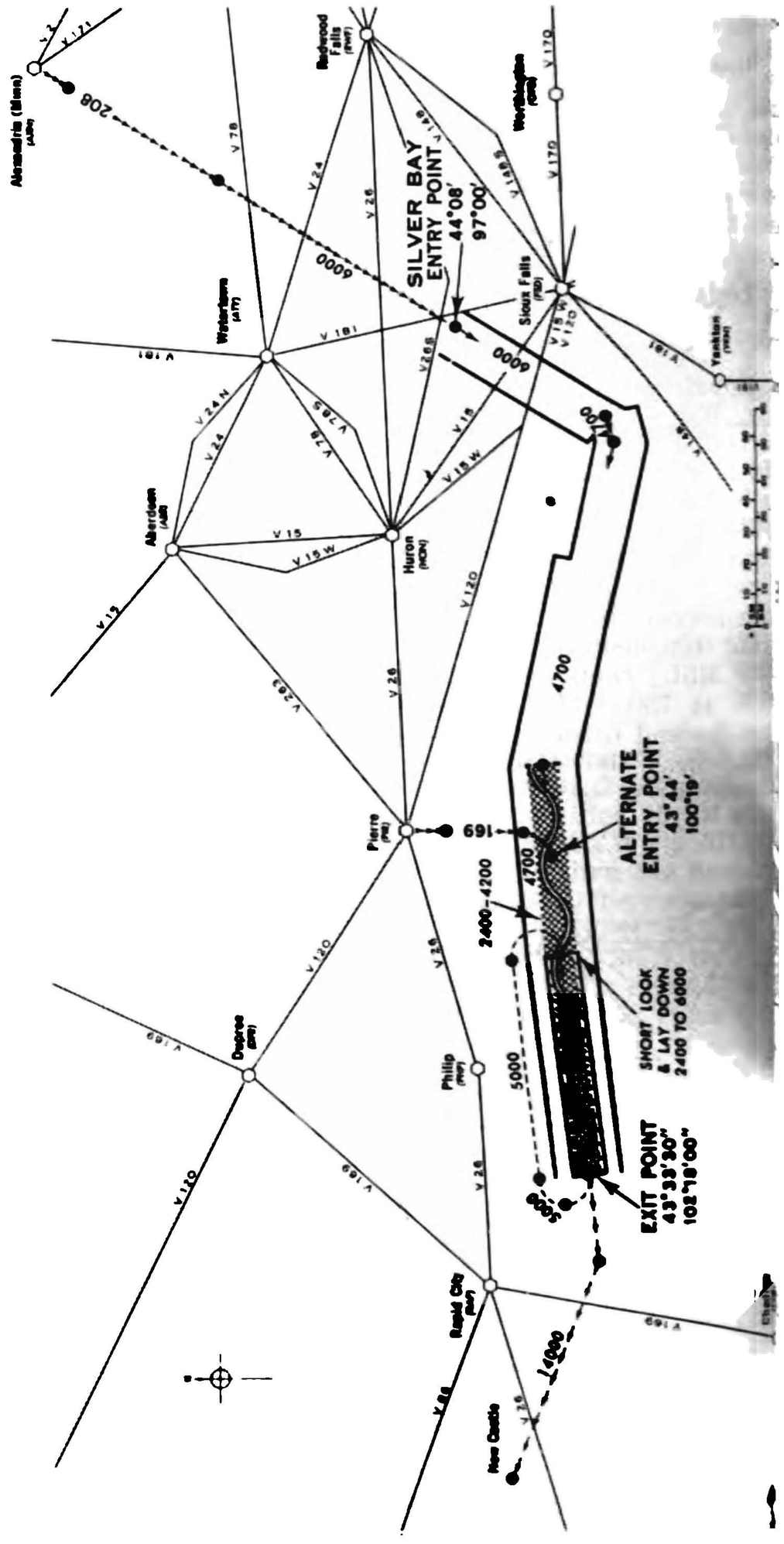
SOUTH DAKOTA

•SILVER BAY

Revised Effective March 18, 1965

Aircraft shall cross the Alexandria, Minn. VOR at FL 200 or as assigned by ARTCC and proceed via the Alexandria VOR 208° radial maintaining FL 200 or assigned altitude until 10 NM SW; then descend direct so as to cross 45°10′N, 96°00′W at 6000′ MSL; then at 6000′ MSL direct 44°08′N, 97°00′W (low level entry point); then at 6000′ MSL direct 43°29′N, 97°35′W; then turn right descending so as to cross 43°27′N, 97°45′W at 4700′ MSL; then at 4700′ MSL direct 43°47′N, 99°45′W; then at 4700′ MSL direct to 43°42′N, 100°56′W.

Short Look and Lay Down—After passing 43°42′N, 100°-56′W, aircraft shall maintain between 2400′ MSL and 6000′ MSL through the bomb run corridor (5 SM either side of centerline from 43°42′N, 100°56′W to 43°33′-30″N, 102°18′W). The minimum IFR altitude through the corridor is 4700′ MSL. After exiting the route at 43°33′30″N, 102°18′W aircraft shall climb so as to cross 43°30′N, 102°50′W at 14,000′ MSL; then at 14,000′ MSL direct to 43°51′N, 104°13′W. (New Castle, Wyoming)



Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall after exiting the route at 43°33′30″N, 102°18′W turn right and climb or descend so as to cross 43°40′N 102°29′W, at 5000′ MSL; then at 5000′ MSL continue turn to 43°47′N, 102°20′W; then at 5000′ MSL direct 43°55′N, 100°58′W; then turn right descending so as to intercept the Silver Bay route at 43°42′N, 100°56′W at 4700′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart be-

ven the following points: From 43°47′N, 99°45′W to °33′30″N, 102°18′W. During daylight hours some VFR erations will be flown 500′ above the immediate terrain. 'R operation conducted during the hours of darkness ll not be flonw lower than 800′ above the terrain. The ver VFR altitude shown is the minimum altitude that ll be reached on each route segment during daylight urs.

Alternate Entry—Aircraft shall cross the Pierre, South kota VOR (reporting point) at 15,000′ MSL or below assigned by ARTCC; then proceed via the Pierre VOR)° radial maintaining 15,000′ MSL or assigned altitude til 10 NM south (44°13′N, 100°10′W); then descend ect to 43°52′N, 100°10′W; then turn right descending as to cross 43°44′N, 100°19′W at 4700′ MSL; thence the published route.

Route Width—The route width is reduced to 5 SM itheast of centerline from 44°08′N, 97°00′W to '29′N, 97°35′W and 5 SM north of centerline between 29′N, 97°35′W to 43°35′N, 98°30′W.

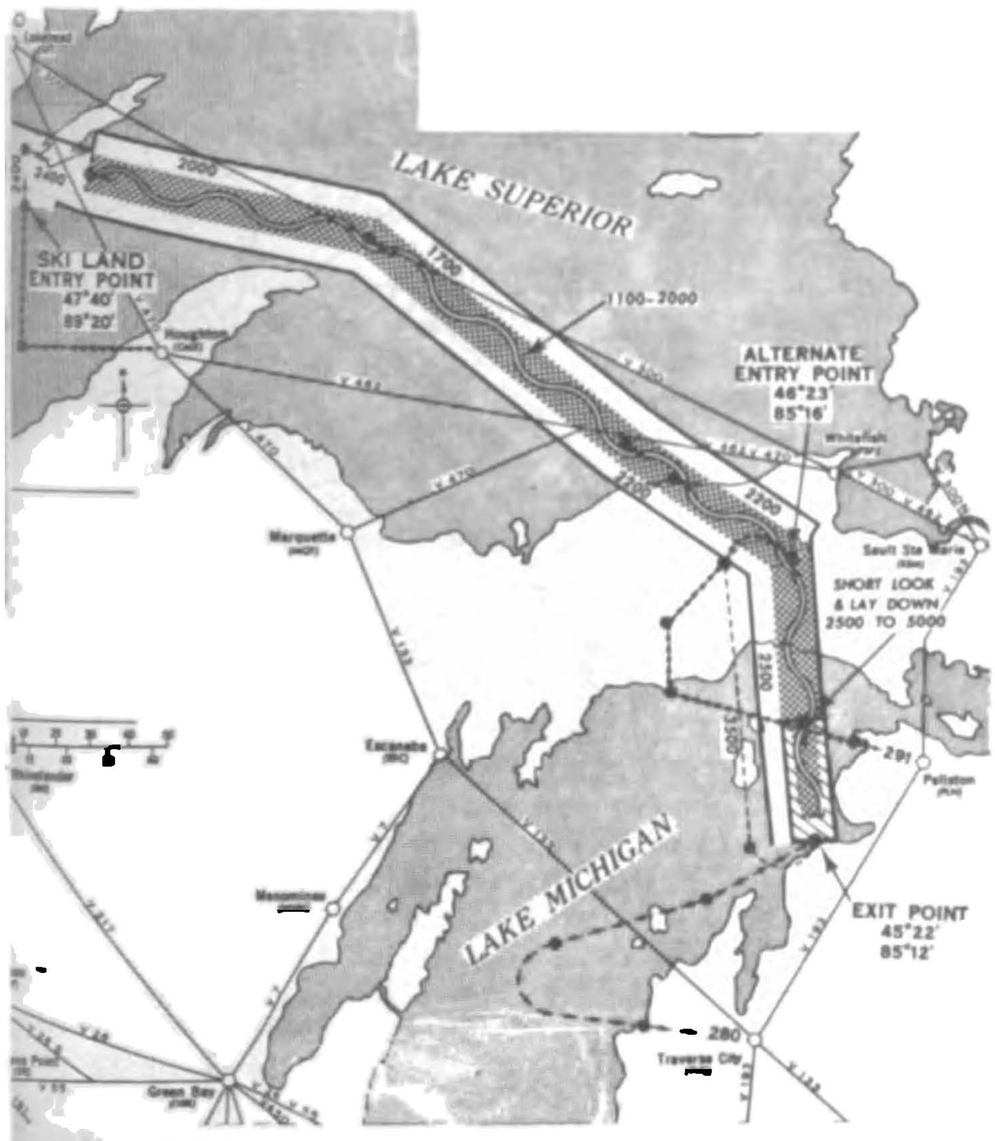
Hours of Operation—24 hours daily seven days per week.

MICHIGAN

SKI LAND

Effective September 6, 1964

Aircraft shall cross the Houghton, Michigan VOR at 00′ MSL or as assigned by ARTCC; then descend ect so as to cross 47°10′N, 89°20′W at 11,000′ MSL;



n turn right continuing descent so as to cross the ite entry point at 47°40′N, 89°20′W at 2400′ MSL, then 2400′ MSL direct 47°52′′N, 89°20′W, then at 2400′ L direct 47°48′N, 88°55′W; then descend to 2000′ L direct 47°35′N, 87°25′W; then descend to 1700′ L direct 46°49′N, 86°06′W; then climb so as to cross 42′N, 85°52′W at 2200′MSL, then at 2200′ MSL direct 23′N, 85°16′W; then climb to 2500′ MSL direct 45°-N, 85°15′W.

hort Look and Lay Down—After passing 45°48′N, 85°15′W craft shall maintain between 2500′ MSL and 5000′ L through the bomb run corridor (5 SM either side of centerline from 45°48′N, 85°15′W to 45°22′N, 85°-12′W. The minimum IFR altitude through the bomb run corridor is 2500′ MSL); after passing 45°22′N, 85°12′W then turn right climbing so as to cross 45°10′N, 85°47′W at 10,000′ MSL; then climb direct so as to cross 45°01′N, 86°33′W at 12,000′ MSL. Turn left to intercept 280° radial of the Traverse City VOR climbing so as to cross Traverse City VOR 280/25 at 21,000′ MSL. Continue climbing via the Traverse City VOR 280° radial so as to cross the Traverse City VOR at FL 250.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 45°22′N, 85°12′W, turn right climbing so as to cross 45°21′N, 85°32′W at 3500′ MSL, then at 3500′ MSL direct to 46°23′N, 85°37′W; then turn right descending so as to cross 46°23′N, 85°-16′W at 2500′ MSL; thence via the "Ski Land" route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 47°48′N, 88°55′W to 45°27′N, 85°13′W. During daylight hours some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment during daylight hours.

Alternate Entry—Aircraft shall cross the Pellston, Mich. VOR at 20,000′ MSL, or as assigned by ARTCC; then proceed via the 291° radial of the Pellston VOR at 20,000′ MSL or assigned altitude until crossing the Pellston VOR 291/15; then descend direct so as to cross 45°55′N, 85°55′W at 8000′ MSL; then continuing descent turn right direct so as to cross 46°09′30′′N, 85°55′W at or below 4000′ MSL; then continue descent so as to cross 46°23′N, 85°37′W at 2500′ MSL, then at 2500′ MSL turn right to 46°23′N, 85°16′W; thence via the "Ski Land" route.

Route Width—The route width is reduced to 5 statute miles west and north of centerline from 47°40′N, 89°-20′W to 47°48′N, 88°55′W, and east of centerline from 46°23′N, 85°16′W to 45°22′N, 85°12′W.

Hours of Operation—0000Z to 2400Z, 7 days a week.

ARIZONA/COLORADO/NEW MEXICO/UTAH

•SLEEPY EYE

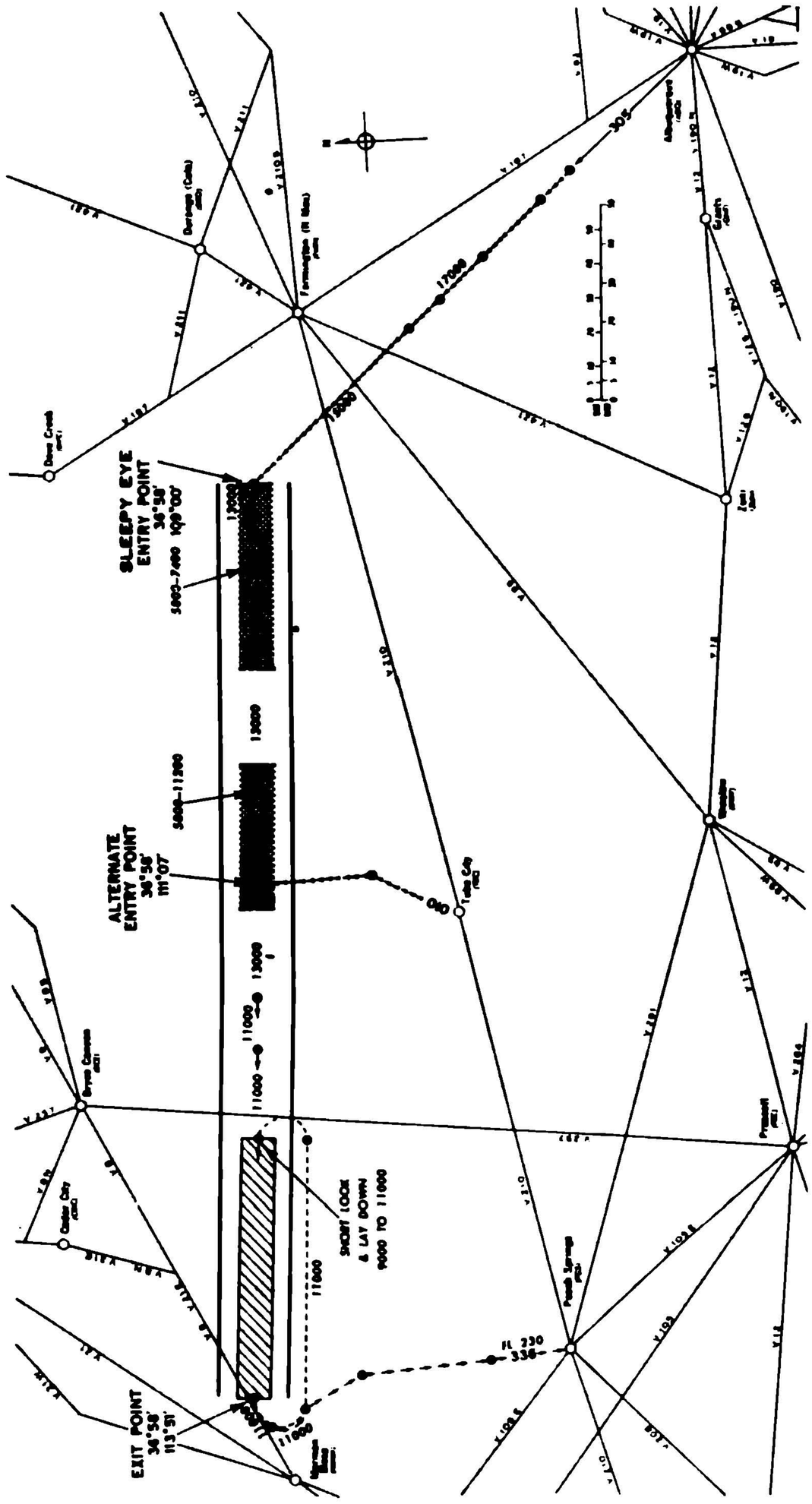
(Formerly "Main Gate")

Revised Effective April 1, 1965

Aircraft shall cross 35°34′N, 107°24′W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42′N, 107°33′W at FL 210; then descend direct to cross 35°57′N, 107°51′W at 17,000′ MSL; then maintain 17,000′ MSL direct 36°09′N, 108°04′W; then descend direct to cross 36°16′N, 108°12′W at 15,000′ MSL; then 15,000′ MSL direct 36°58′N, 109°00′W (low level entry point); then descend direct to cross 36°58′N, 109°10′W at 13,000′ MSL; then 13,000′ MSL direct 36°58′N, 111°42′W; then descend direct to cross 36°58′N, 112°00′W at 11,000′ MSL; then direct to cross 36°58′N, 112°29′W at or below 11,000′ MSL.

Short Look and Lay Down—After passing 36°58′N, 112°-29′W aircraft shall operate between 9,000′ and 11,000′ MSL through the bomb run corridor (5 SM either side of centerline from 36°58′N, 112°29′W to 36°58′N, 113°-51′W). After exiting the route at 36°58′N, 113°51′W aircraft shall turn left climbing to cross 36°53′N, 114°-

00′W at 11,000′ MSL; then maintain 11,000′ MSL direct to 36°44′N, 113°53′W; then climb via direct to cross 36°30′N, 113°42′W at or below 17,000′ MSL (reporting point "SLEEPY EYE" #1); then direct to cross 35°-58′N, 113°36′W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37′30″N, 113°32′W).



Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58′N, 113°51′W, turn left via direct to cross 36°53′N, 114°00′W at 11,000 MSL; then 11,000′ MSL direct 36°44′N, 113°53′W; then 11,000′ MSL direct 36°44′N, 112°29′W; then turn left direct to cross 36°58′N, 112°29′W at or below 11,000′ MSL; thence via published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′ visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 36°58′N, 109°00′W to 36°58′N, 110°00′W and from 36°58′N, 110°30′W to 36°58′N, 111°16′W. During daylight hours some VFR operations will be flown 800′ above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment.

Alternate Entry—Aircraft shall cross the Tuba City, Arizona VOR (36°07′30″N, 111°16′W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 091° radial until 23 miles north (36°28′N, 111°04′W); then descend direct to cross 36°58′N, 111°07′W at 13,000 MSL; thence via published route.

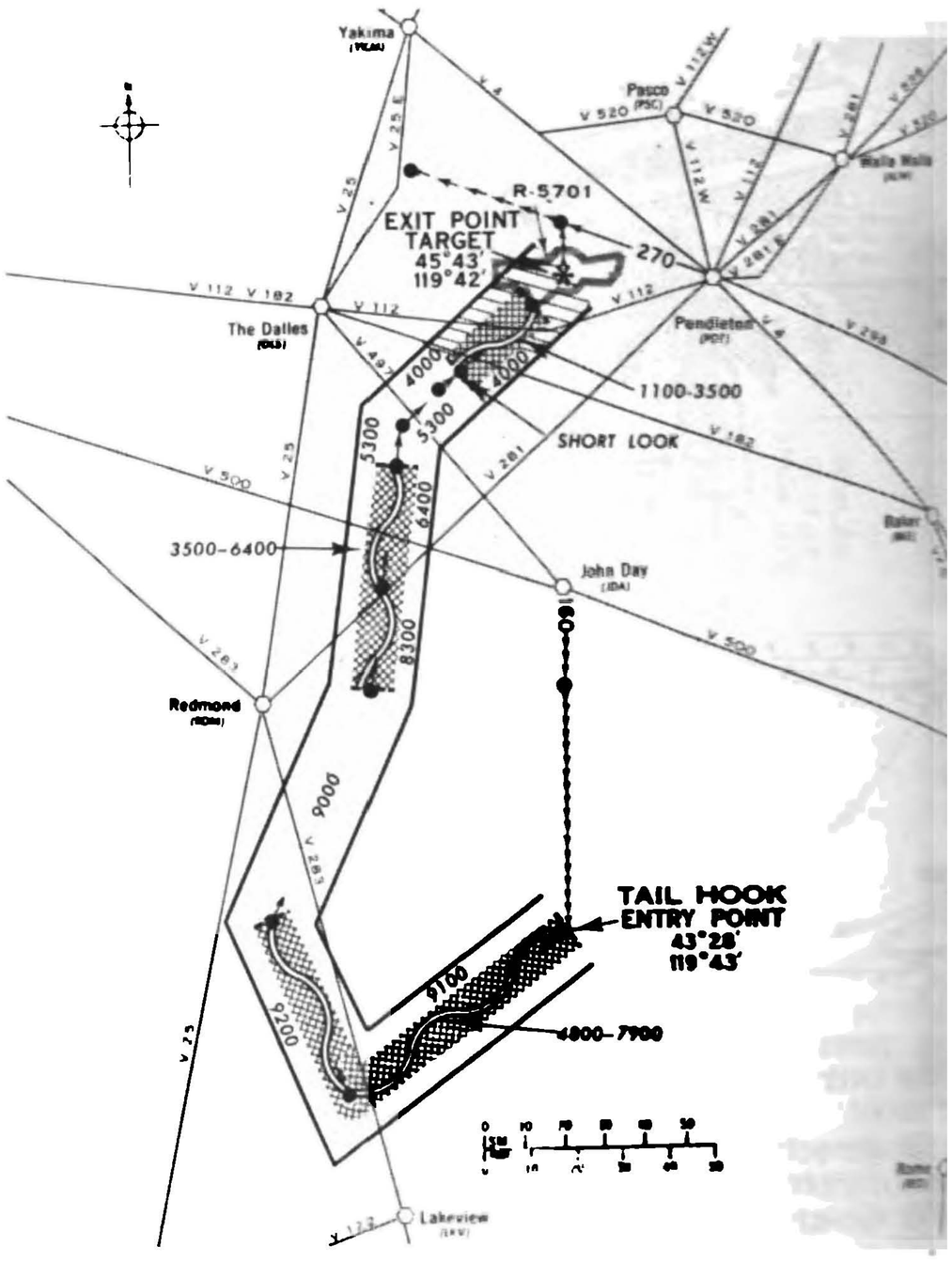
Hours of Operation—24 hours daily, 7 days a week.

OREGON

TAIL HOOK

Revised Effective February 12, 1964

Aircraft shall cross the John Day, Oregon VOR (reporting point) at 23,000′ MSL, or as assigned by Seattle ARTCC; then proceed via the John Day VOR 160° radial maintaining assigned altitude until 20 nautical miles south of the John Day VOR (44°19′N, 119°43′W); then descend to 9100′ MSL to the entry point of the low level route at 43°28′N, 119°43′W; then 9100′ MSL direct to 42°54′N, 120°45′W; then climb to 9200′ MSL direct to



43°31′N, 121°08′W; then descend to 9000′ MSL direct to 44°18′N, 120°39′W; then descend to 8300′ MSL direct to 44°40′N, 120°36′W; then descend to 6400′ MSL direct

o 45°05'N, 120°31'W; then descend to 5300' MSL direct o 45°13'N, 120°30'W; then 5300' MSL direct to 45°20'N, 20°19'W; then descend so as to cross 45°23'N, 120°13'W t 4000' MSL.

Short Look—After passing 45°23'N, 120°13'W, aircraft hall maintain 4000' MSL until within Restricted Area 5701; after crossing RBS target located at 45°43'N, 19°42'W, the route exit point, aircraft shall make a limbing left turn so as to intercept the Pendleton, Oreon VORTAC 270° radial 34 nautical mile fix (reporting oint) at or above 11,000' MSL; then climb westbound n the Pendleton VORTAC 270° radial so as to cross the endleton VORTAC 270° radial 68 nautical mile fix at 3,000' MSL.

VFR and Contour—If the encountered weather conditions long the route are equal to or better than ceiling 3000' isibility five miles, the pilot may descend VFR and perate VFR between the VFR altitudes indicated on ie chart between the following points: From 43°28'N, 19°43'W to 43°31'N, 121°08'W, from 44°18'N, 120°39'W o 45°05'N, 120°31'W, and from 45°23'N, 120°13'W to stricted area R-5701. During daylight hours, VFR erations will be flown 500' above the immediate terin. VFR operations conducted during the hours of rkness shall not be flown lower than 800' above terin. The lower VFR altitude shown on the chart is ie minimum altitude that shall be reached on each route gment during daylight hours.

Hours of Operation—1000Z to 2400Z Monday thru Friday nd 0000Z to 0800Z Tuesday thru Saturday.

GEORGIA/NORTH CAROLINA/SOUTH CAROLINA

WALNUT GROVE

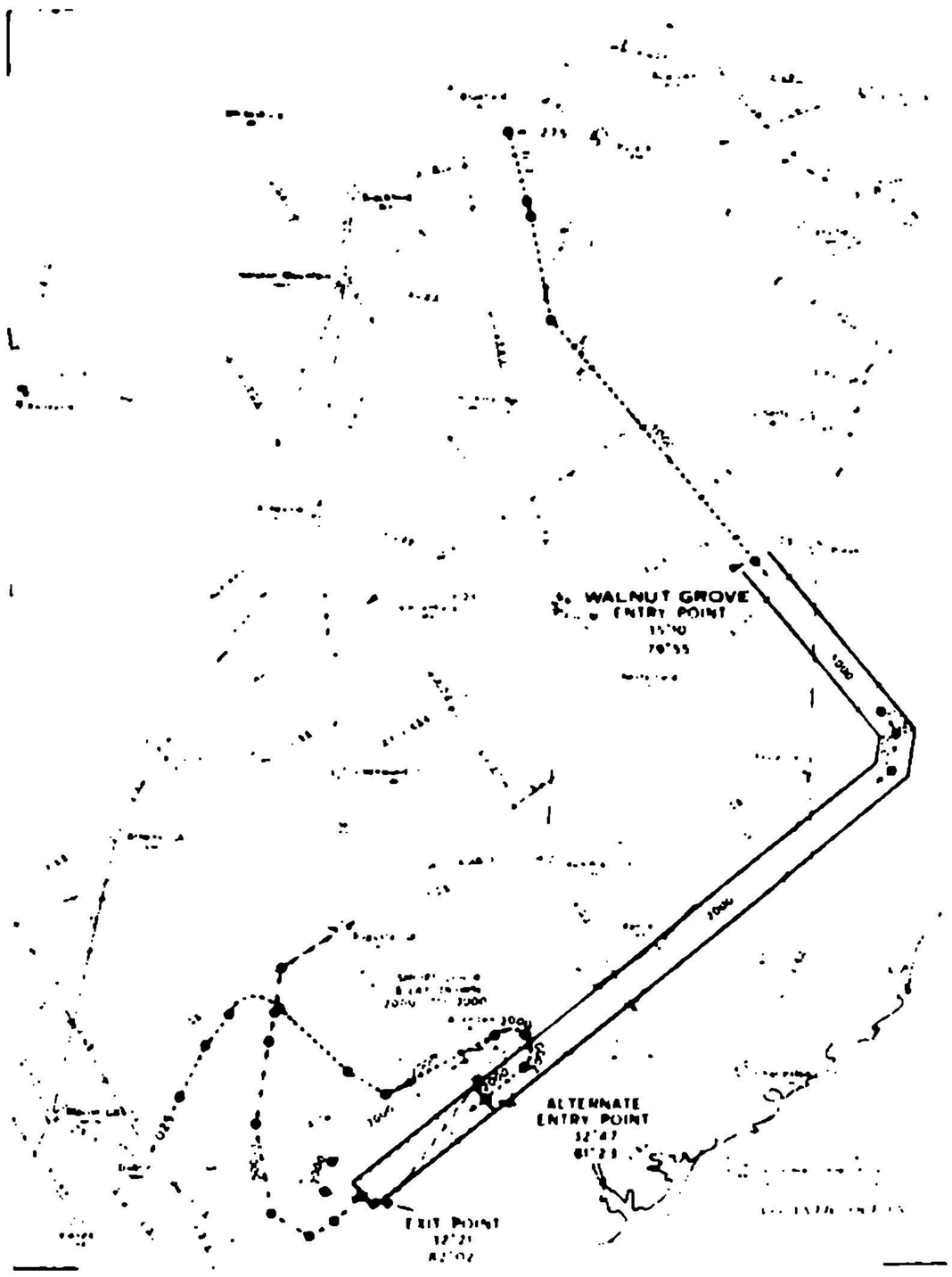
Revised Effective January 4, 1965

Aircraft shall cross the Pulaski, Virginia VORTAC 25 DME fix (37°06'N, 81°14'W) at FL 210 or as signed by ARTC; then maintain and cross 36°47'N, 08'W at FL 210; then descend direct so as to cross 43'N, 81°07'W at FL 180 or above; then descend rect so as to cross 36°15'N, 81°00'W at 5000' MSL; en at 5000' MSL direct to 35°10'N, 79°55'W (low level try point); then at 5000' MSL direct to 34°29'N, 16'W; then descend direct so as to cross 34°23'N, 11'W at 2000' MSL; then at 2000' MSL turn right to 13'N, 79°13'W; then at 2000' MSL direct to 32°47'N, 23'W.

Short Look and Lay Down—After passing 32°47'N, 81°23'W rcraft shall maintain between 2000' MSL and 3000' SL through the bomb run corridor (5 SM either side center line from 32°47'N, 81°23'W to 32°21'N, 82°-'W). After exiting the route at 32°21'N, 82°02'W, rcraft shall climb to or maintain 3000' MSL to 32°-'N, 82°10'W; then climb direct so as to cross 32°10'N, 18'W at 6000' MSL; then climb direct so as to cross 16'N, 82°30'W at 11,000' MSL; maintain 11,000' rect 32°40'N, 82°35'W; then climb direct so as to cross 02'N, 82°31'W at FL 180; cross 33°10'N, 82°29'W at L 200; cross 33°22'N, 82°27'W at FL 230 or as assigned; then at FL 230 or as assigned direct to the ugusta, Georgia VOR.

Re-Entry—Aircraft that are scheduled to execute an ditional bomb run shall, after exiting the low level ute at 32°21'N, 82°02'W, turn right and descend or aintain 2000' MSL to 32°22'N, 82°13'W; then at 2000' SL continue turn to 32°30'N, 82°11'W; then at 2000' SL direct to 33°04'N, 81°20'W; then at 2000' MSL rn right to 33°04'N, 81°10'W; continue turn to 32°-'N, 81°11'W; then at 2000' MSL direct to 32°47'N, 23'W; thence via the published route.

Alternate Entry—Aircraft shall cross the Dublin, Georgia VOR (32°31'N, 83°08'W) at FL 260 or as assigned; then descend direct via the Dublin VOR 025° radial so as to cross 32°47'N, 82°50'W at FL 230; cross 33°01'N, 82°51'W at 17,000' MSL; cross 33°09'N, 82°44'W at 15,000' MSL; turn right to cross 33°11'N, 82°28'W at 13,000' MSL; cross 32°54'N, 82°06'W at 3000' MSL; then descend direct so as to cross 32°48'N, 81°54'W at 2000' MSL; then at 2000' MSL direct to 33°04'N, 81°20'W; then at 2000' MSL turn right to 33°04', 81°10'W; continue turn to 32°55'N, 81°11'W; then at 2000' MSL direct to intercept the Walnut Grove route at 32°47'N, 81°23'W.



Route Width—The entire route width is reduced to 5 SM either side of centerline.

Hours of Operation—Primary entry 1900Z to 2300Z and from 0100Z to 1400Z, 7 days per week; alternate entry 24 hours per day, 7 days per week.

COLORADO/KANSAS/NEW MEXICO

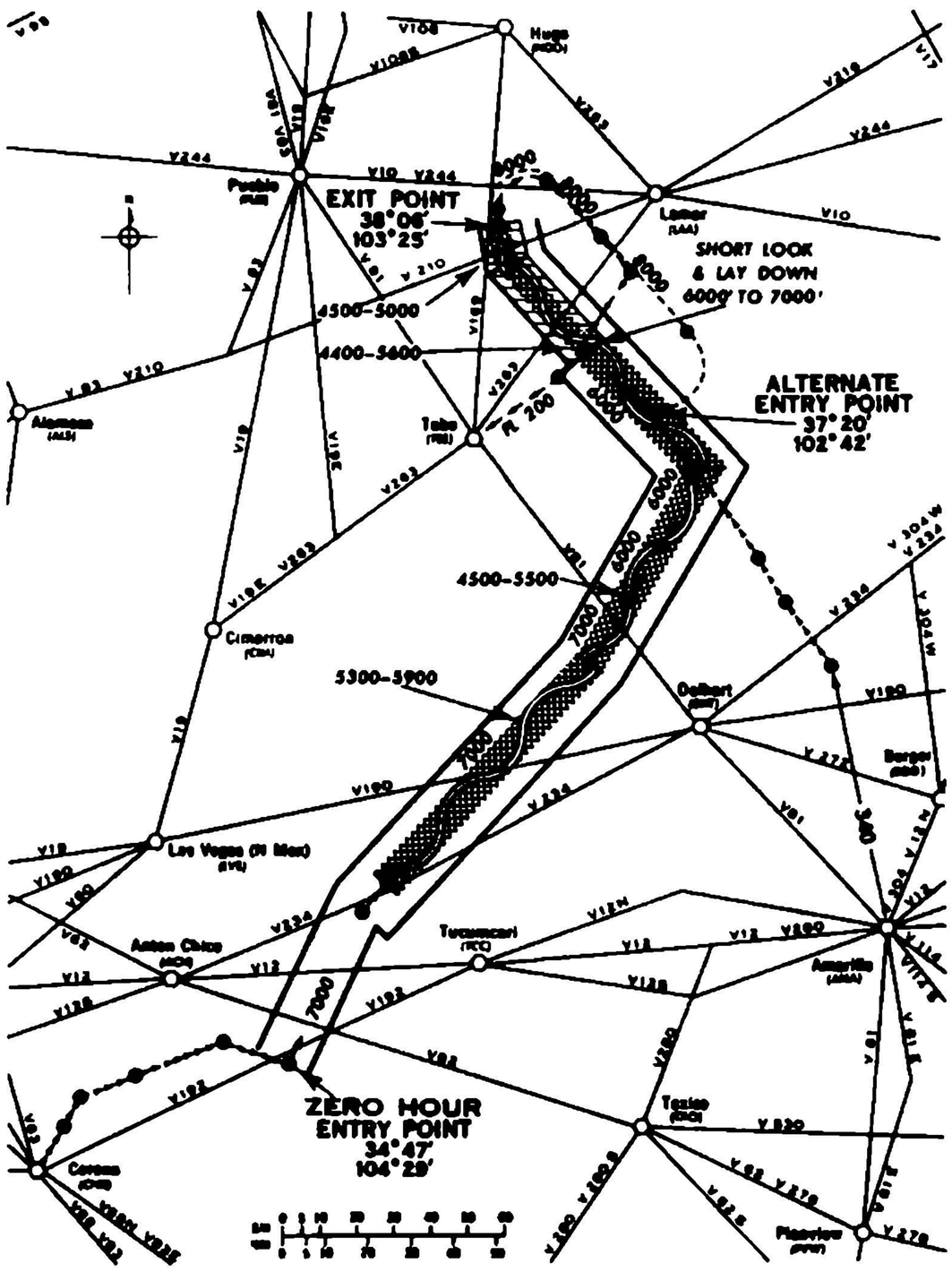
OKLAHOMA/TEXAS

ZERO HOUR

Revised Effective March 3, 1965

Aircraft shall cross 34°22'N, 105°40'30"W (Corona, New Mexico VOR) (reporting point) at FL 250 or as assigned by ATC, then descend direct to cross 34°33'N, 105°33'W at or below FL 230; then descend direct to

cross 34°40′N, 105°28′W at FL 220; then descend direct to cross 34°45′N, 105°12′W at or below 17,000′ MSL; then descend direct to cross 34°53′N, 104°48′W at 10,000′ MSL; then descend direct to cross the route entry point at 34°47′N, 104°29′ W at 7000′ MSL, maintain 7000′ MSL direct to 35°24′N, 104°08′W; then 7000′ MSL direct to 36°22′N, 103°00′W; then 7000′ MSL direct to 36°37′N, 102°49′W; then descend direct to cross 36°49′N, 102°40′W at 6000′ MSL; then 6000′ MSL direct to 37°06′N, 102°-27′W; then 6000′ MSL direct to 37°36′N, 103°00′W.



Short Look and Lay Down—After passing 37°36′N, 103°-00′W, aircraft shall maintain between 6000′ MSL and 7000′ MSL thru the bomb run corridor (5 SM either side of centerline from 37°36′N, 103°00′W to 37°57′N, 103°-22′W to 38°06′N, 103°25′W). After exiting the route at 38°06′N, 103°25′W climb direct to cross 38°09′N, 103°-26′W at 8000′ MSL, turn right, maintain 8000′ MSL to 38°15′N, 103°10′W, then 8000′ MSL direct to 38°02′N, 102°55′W, then climb direct to cross 37°53′N, 102°45′W at 9000′ MSL, continue climb direct to cross 37°30′N, 103°08′W at FL 200; then maintain FL 200 direct to Tobe VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38°06′N, 103°25′W, climb direct to cross 38°09′N, 103°26′W at 8000′ MSL, maintain 8000′ MSL right turn to 38°15′N, 103°10′W, then 8000′ MSL direct to 37°40′N, 102°30′W; then turn right descending to cross 37°24′N, 102°47′W at 6000′ MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000′, visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 35°30′N, 104°01′W to 38°06′N, 103°25′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.

Alternate Entry—Aircraft shall cross 36°19′N, 101°51′W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ATC, then descend direct to cross 36°34′N, 102°03′W at 17,000′ MSL; then descend direct to cross 36°44′N, 102°-11′W at 14,000′ MSL; then descend direct to cross 37°-06′N, 102°27′W at 11,000′ MSL; then descend direct to cross 37°20′N, 102°42′W at 6000′ MSL; thence via the published route.

Route Width—The route width from 34°47′N, 104°29′W to 35°24′N, 104°08′W is reduced to 5 SM on the east side of centerline, and from 37°36′N, 103°00′W, to 38°06′N, 103°25′W, the route is reduced to 5 SM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

• LOW ALTITUDE VFR MILITARY OPERATIONS

The military services have a continuing requirement to conduct VFR low altitude training flights at and below 1,500 feet feet above the surface in excess of 300 knots indicated airspeed. These flights are conducted only when weather conditions are equal to or better than 3,000 feet ceiling and five miles' visibility.

The routes used by these training flights are selected to avoid control zones, control zone extensions, and airport traffic areas; and to the extent possible, uncontrolled airports by three statute miles, control areas, and transition areas.

The USAF Aeronautical Chart and Information Center is publishing a narrative description in booklet form and a chart depicting these routes. The initial publication was effective March 24, 1963, and will be issued every 28 days thereafter. The chart is comprised of one large sheet with the eastern United States on one side and the western United States on the other. Both the chart and narrative route description booklet are available to the geneeral public as a brochure by subscription on request to the Director, Coast and Geodetic Survey, 14th and Constitution Avenue, N.W., Washington D.C. 20230 Subscription requests should be for the "USAF/USN Flight Information Publication—Planning. Section I–A, Military Training Routes." In addition each FSS will have this publication available for preflight pilot briefings. Pilots should review these charts to acquaint themselves with those routes that are located along their route of flight and in the vicinity of the airports from which they operate.

STANDARD INSTRUMENT APPROACH PROCEDURES ACTIONS

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Mar 27, 1965:

Location	Procedure	Action
LOW FREQUENCY RANGE		
ik, Alaska—Aniak Arpt	No. 1, Amdt. 7	Revised
nai, Alaska—Kenai Arpt	No. 1, Amdt. 11	Revised
AUTOMATIC DIRECTION FINDING		
dwell, N.J.—Caldwell-Wright Arpt	No. 1, Orig.	Established
rt Sill, Okla.—Henry Post AAF	No. 2, Amdt. 1	Revised
ramie, Wyo.—Brees Fld	No. 1, Orig., efctv 31 Aug 63	Cancelled
nhattan, Kans.—Manhattan Mun Arpt	No. 1, Amdt. 1	Revised
mphis, Tenn.—Memphis Metropolitan Arpt	No. 2, Amdt. 5	Revised
shua, N.H.—Boire Fld	No. 2, Orig.	Established
w York, N.Y.—La Guardia Arpt	No. 1, Amdt. 23	Revised
w York, N.Y.—LaGuardia Arpt	No. 2, Amdt. 2	Revised
ttsburgh, Pa.—Greater Pittsburgh Arpt	No. 1, Amdt. 6	Revised
ttsburgh, Pa.—Greater Pittsburgh Arpt	No. 2, Amdt. 7 efctv 23 Jan 65	Cancelled
ttsburgh, Pa.—Greater Pittsburgh Arpt	No. 3, Orig.	Established
ttsburgh, Pa.—Greater Pittsburgh Arpt	No. 4, Amdt. 3	Revised
hitefield, N.H.—Whitefield Mun	No. 1, Amdt. 1	Revised
chita, Kans.—Wichita Mun Arpt	No. 1, Amdt. 7	Revised
lloughby, Ohio—Lost Nation Arpt	No. 1, Amdt. 4	Revised
lloughby, Ohio—Lost Nation Arpt	No. 2, Amdt. 2	Revised
VHF OMNIRANGE		
nai, Alaska—Kenai Arpt	No. 1, Amdt. 2	Revised
dison, Miss.—Bruce Campbell Fld	No. 1, Amdt. 1	Revised
nsfield, Ohio—Mansfield Mun Arpt	No. 1, Amdt. 3	Revised
ntgomery, N.Y.—Orange Co. Arpt	No. 1, Amdt. 1	Revised
w York, N.Y.—LaGuardia Arpt	No. 1, Amdt. 4	Revised
w York, N.Y.—LaGuardia Arpt	No. 2, Amdt. 4	Revised
ttsburgh, N.Y.—Plattsburgh Mun Arpt	No. 1, Amdt. 8	Revised
chita, Kans.—Beech Factory Arpt	No. 1, Amdt. 2	Revised
TERMINAL VOR		
ston, Mass.—Gen. Edward Lawrence Logan Int'l Arpt	TerVOR-22L, Amdt. 4	Revised
ston, Mass.—Gen. Edward Lawrence Logan Int'l Arpt	TerVOR-27, Amdt. 4	Revised
Bragg, N.C.—Simmons AAF	TerVOR-27, Amdt. 1	Revised
stings, Neb.—Municipal Arpt	TerVOR-32, Orig.	Established
w Haven, Conn.—Tweed-New Haven Arpt	TerVOR-1, Amdt. 5	Revised
tsburgh, Pa.—Greater Pittsburgh Arpt	TerVOR-32, Amdt. 2	Revised
VOR/DME		
ston, Mass.—Gen Edward Lawrence Logan Int'l Arpt	VOR/DME #1, Amdt. 1	Revised

Location	Procedure	Action
INSTRUMENT LANDING SYSTEM		
Brownsville, Tex.—Rio Grande Valley Int'l Arpt	ILS–17L, Amdt. 19	Revised
Los Angeles, Calif.—Van Nuys Arpt	ILS–08, Amdt. 3	Revised
Memphis, Tenn.—Memphis Metropolitan Arpt	ILS–35, Amdt. 5	Revised
New York, N.Y.—LaGuardia Arpt	ILS–4, Amdt. 22	Revised
New York, N.Y.—LaGuardia Arpt	ILS–13, Amdt. 1	Revised
New York, N.Y.—LaGuardia Arpt	ILS–22, Amdt. 2	Revised
Orlando, Fla.—Herndon Arpt	ILS–7, Amdt. 4	Revised
Orlando, Fla.—Herndon Arpt	ILS–25, (Back Course), Amdt. 4	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–10L, Amdt. 5	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–10R, (Back Course), Amdt. 6	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	ILS–28L, Amdt. 10	Revised
Pueblo, Colo.—Pueblo Memorial Arpt	ILS–25, (Back Course), Amdt. 4	Revised
Toledo, Ohio—Toledo Express Arpt	ILS–25 (Back Course), Amdt. 6	Revised
Wichita, Kans.—Wichita Mun. Arpt	ILS–1, Amdt. 7	Revised
RADAR		
Akron, Ohio—Akron-Canton Arpt	No. 1, Amdt. 2	Revised
Covington, Ky.—Greater Cincinnati Arpt	No. 1, Amdt. 5	Revised
Dallas, Tex.—Dallas Love Fld	No. 1, Amdt. 11	Revised
Fort Bragg, N.C.—Simmons AAF	No. 1, Amdt. 2	Revised
Ft. Hood, Tex.—Gray AAF	No. 1, Orig.	Established
Nashville, Tenn.—Nashville Metropolitan Arpt	No. 1, Amdt. 6	Revised
New York, N.Y.—LaGuardia Arpt	No. 1, Amdt. 13	Revised
Pittsburgh, Pa.—Greater Pittsburgh Arpt	No. 1, Amdt. 8	Revised
Toledo, Ohio—Toledo Express Arpt	No. 1, Amdt. 2	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Apr 3, 1965:

LOW FREQUENCY RANGE		
Baker, Ore.—Baker Mun. Arpt	No. 1, Amdt. 9	Revised
AUTOMATIC DIRECTION FINDING		
Annette Island, Alaska—Annette FAA Arpt	No. 1, Amdt. 8	Revised
Annette Island, Alaska—Annette FAA Arpt	No. 2, Amdt. 3	Revised
Atlanta, Ga.—Atlanta Arpt	No. 4, Amdt. 1	Revised
Augusta, Ga.—Bush Fld	No. 1, Amdt. 12	Revised
Ft. Worth, Tex.—Meacham Fld	No. 1, Amdt. 2	Revised
Hastings, Nebr.—Municipal Arpt	No. 1, Amdt. 1	Revised
Hutchinson, Kans.—Hutchinson Mun Arpt	No. 1 Amdt 2	Revised
Long Beach, Calif.—Long Beach (Daugherty Fld)	No. 1, Amdt. 19	Revised
Pittsfield, Mass.—Pittsfield Mun Arpt	No. 1, Amdt. 1 efctv 10 Oct 64	Cancelled
Pittsfield, Mass.—Pittsfield Mun Arpt	No. 1, Orig	Established
Tulsa, Okla.—Tulsa Int'l Arpt	No. 1, Amdt. 11	Revised
Tulsa, Okla.—Tulsa Int'l Arpt	No. 2, Amdt. 1	Revised
Waterloo, Iowa—Waterloo Mun Arpt	No. 1, Amdt. 6	Revised
VHF OMNIRANGE		
Chicago, Ill. (West Chicago)—DuPage Co. Arpt	No. 1, Amdt. 2	Revised
Chicago, Ill.—Pal-Waukee Arpt	No. 1, Amdt. 8	Revised
College Station, Tex.—Easterwood Fld	No. 1, Amdt. 4	Revised
Fort Dodge, Iowa—Fort Dodge Mun Arpt	No. 1, Amdt. 4	Revised
Fullerton, Calif.—Fullerton Mun Arpt	No. 1, Amdt. 2	Revised
Gary, Indiana—Gary Mun Arpt	No. 1, Amdt. 3	Revised

Location	Procedure	Action
VHF OMNIRANGE		
lastings, Nebr.—Municipal Arpt	No. 1, Amdt. 1 efctv 18 Jul 64	Cancelled
lutchinson, Kans.—Hutchinson Mun Arpt	No. 1, Amdt. 9	Revised
oliet, Ill.—Joliet Mun Arpt	No. 1, Amdt. 6	Revised
aGrange, Ga.—Callaway Arpt	No. 1, Amdt. 6	Revised
ong Beach, Calif.—Long Beach (Daugherty Fld)	No. 1, Amdt. 6	Revised
lorris, Ill.—Morris Mun Arpt	No. 1, Amdt. 1	Revised
ew Orleans, La.—New Orleans-Lakefront Arpt	No. 1, Amdt. 6	Revised
ome, Alaska—Nome FAA Arpt	No. 2, Orig. efctv 14 Nov 64	Cancelled
ome, Alaska—Nome FAA Arpt	No. 1, Amdt. 1	Revised
orthbrook, Ill.—Sky Harbor Arpt	No. 1, Amdt. 3	Revised
lainview, Tex.—Hale Co. Arpt	No. 1, Amdt. 3	Revised
alt Lake City, Utah—Salt Lake City Mun Arpt	No. 1, Amdt. 3 efctv 28 Sep 57	Cancelled
hreveport, La.—Downtown Arpt	No. 1, Amdt. 1	Revised
idney, Ohio—Sidney Arpt	No. 1, Amdt. 3	Revised
ero Beach, Fla.—Vero Beach Arpt	No. 1, Amdt. 6	Revised
est Palm Beach, Fla.—Palm Beach Int'l Arpt	No. 1, Amdt. 3, efctv 15 Aug 64	Cancelled
TERMINAL VOR		
aker, Ore.—Baker Mun Arpt	TerVOR-12, Amdt. 1	Revised
eatrice, Nebr.—Beatrice Mun Arpt	TerVOR-13, Amdt. 4	Revised
scanaba, Mich.—Escanaba Mun. Arpt	TerVOR-9, Amdt. 2	Revised
astings, Nebr.—Municipal Arpt	TerVOR-14, Amdt. 1	Revised
arquette, Mich.—Marquette Co. Arpt	TerVOR-8, Amdt. 3	Revised
arquette, Mich.—Marquette Co. Arpt	TerVOR-26, Amdt. 2	Revised
hiladelphia, Pa.—North Philadelphia Arpt	TerVOR-24, Amdt. 7	Revised
rasota, Fla.—Sarasota-Bradenton Arpt	TerVOR-13, Amdt. 3	Revised
aterloo, Iowa—Waterloo Mun Arpt	TerVOR-24, Amdt. 4	Revised
VOR/DME		
aker, Ore.—Baker Mun Arpt	VOR/DME #1,	Revised
ort Dodge, Iowa—Fort Dodge Mun Arpt	VOR/DME #1, Orig.	Established
ullerton, Calif.—Fullerton Mun. Arpt	VOR/DME #1, Amdt. 4	Revised
aterloo, Iowa—Waterloo Mun Arpt	VOR/DME #1 Amdt. 1	Revised
est Palm Beach, Fla.—Palm Beach Int'l Arpt	VOR/DME #1, Orig.	Established
INSTRUMENT LANDING SYSTEM		
tlanta, Ga.—Atlanta Arpt	ILS-9R, Amdt. 1	Revised
ugusta, Ga.—Bush Fld	ILS-35, Amdt. 10	Revised
nnette Island, Alaska—Annette FAA Arpt	ILS-12, Amdt. 9	Revised
uffalo, N.Y.—Greater Buffalo Int'l Arpt	ILS-5, (Back Course) Amdt. 7	Revised
uffalo, N.Y.—Greater Buffalo Int'l Arpt	ILS-23, Amdt. 12	Revised
olorado Springs, Colo.—Peterson Fld	ILS-35, Amdt. 19	Revised
ort Worth, Tex.—Meacham Fld	ILS-17, Amdt. 17	Revised
utchinson, Kans.—Hutchinson Mun Arpt	ILS-13, Amdt. 3	Revised
utchinson, Kans.—Hutchinson Mun Arpt	ILS-31, (Back Course), Amdt. 3	Revised
ong Beach, Calif.—Long Beach (Daugherty Fld)	ILS-30, Amdt. 21	Revised
ulsa, Okla.—Tulsa Int'l Arpt	ILS-17L, Amdt. 1	Revised
aterloo, Iowa.—Waterloo Mun Arpt	ILS-12, Amdt. 6	Revised
RADAR		
tlanta, Ga.—Atlanta Arpt	Proc. No. 1, Amdt. 10	Revised
ckson, Miss. Allen C. Thompson Fld	No. 1, Amdt. 2	Revised
ortland, Ore.—Portland Int'l Arpt	No. 1, Amdt. 9	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Apr. 10, 1967:

Location	Procedure	Action
AUTOMATIC DIRECTION FINDING		
Brownsville, Tex.—Rio Grande Valley Int'l Arpt	No. 1, Amdt. 17	Revised
Brownsville, Tex.—Rio Grande Valley Int'l Arpt	No. 2, Amdt. 2	Revised
Columbia, S.C.—Columbia Arpt	No. 1, Amdt. 11	Revised
Dallas, Tex.—Dallas Love Fld	No. 1, Amdt. 6	Revised
Fall River, Mass.—Fall River Mun Arpt	No. 1, Orig.	Established
Garden City, Kans.—Garden City Mun Arpt	No. 1, Amdt. 2	Revised
Great Falls, Mont.—Great Falls Int'l Arpt	No. 1, Amdt. 7	Revised
Great Falls, Mont.—Great Falls Int'l Arpt	No. 2, Amdt. 3	Revised
Indiana, Penn.—Indiana Co (Jimmy Stewart Fld)	No. 1, Orig.	Established
Kahului Maui, Hawaii—Kahului Arpt	No. 1, Amdt. 2	Revised
Key West, Fla.—Key West Int'l Arpt	No. 1, Amdt. 1	Revised
Louisville, Ky.—Bowman Fld	No. 1, Amdt. 3	Revised
Louisville, Ky.—Standiford Fld	No. 1, Amdt. 23	Revised
Louisville, Ky.—Standiford Fld	No. 2, Amdt. 3	Revised
Miami, Fla.—Int'l Arpt	No. 1, Amdt. 3	Revised
Morgantown, W. Va.—Morgantown Mun Arpt	No. 1, Amdt. 5	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	No. 1, Amdt. 12	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	No. 2, Amdt. 10	Revised
Sioux City, Iowa—Sioux City Mun Arpt	No. 1, Amdt. 10	Revised
Sioux City, Iowa—Sioux City Mun Arpt	No. 2, Amdt. 4	Revised
Springfield, Ohio—Springfield Mun Arpt	No. 1, Amdt. 6	Revised
VHF OMNIRANGE		
Auburn, Ala.—Auburn-Opelika Arpt	No. 1, Amdt. 2	Revised
Bellingham, Wash.—Bellingham Mun Arpt	No. 1, Amdt. 6	Revised
Bellingham, Wash.—Bellingham Mun Arpt	No. 2, Orig.	Established
Brownsville, Tex.—Rio Grande Valley Int'l Arpt	No. 1, Amdt. 6	Revised
Clarion, Pa.—Rhea Grande Valley Int'l Arpt	No. 1, Amdt. 1	Revised
Great Falls, Mont.—Great Falls Int'l Arpt	No. 1, Amdt. 7	Revised
Great Falls, Mont.—Great Falls Int'l Arpt	No. 2, Amdt. 2	Revised
Louisville, Ky.—Bowman Fld	No. 1, Amdt. 6	Revised
Menominee, Mich.—Menominee Co Arpt	No. 1, Amdt. 2	Revised
Morgantown, W.Va.—Morgantown Mun Arpt	No. 1, Amdt. 3	Revised
Muscle Shoals, Ala.—Muscle Shoals Arpt	No. 1, Amdt. 14	Revised
Oklahoma City, Okla.—Will Rodgers World Arpt	No. 1, Amdt. 9	Revised
Paducah, Ky.—Barkley Fld	No. 1, Amdt. 5	Revised
Pine Bluff, Ark.—Grider Fld	No. 1, Amdt. 7	Revised
Sioux City, Iowa—Sioux City Mun Arpt	No. 1, Amdt. 10	Revised
Truth or Consequences, N. Mex.—Truth or Consequences Mun Arpt	No. 1, Amdt. 5	Revised
TERMINAL VOR		
Chicago, Ill.—Chicagoland Arpt	TerVOR-22, Amdt. 1	Revised
Canton Island Phoenix Island—Canton Arpt	TerVOR-27, Amdt. 1, efctv 5 Sep 64	Cancelled
Canton Island Phoenix Island—Canton Arpt	TerVOR-9, Amdt. 1, efctv 5 Sep 64	Cancelled
Chicago, Ill.—Chicagoland Arpt	TerVOR-13, Amdt. 1	Revised
Garden City, Kans.—Garden City Mun Arpt	TerVOR-17, Amdt. 3	Revised
Kahului, Maui Hawaii—Kahului Arpt	TerVOR-R-027, Amdt. 4	Revised
Kahului, Maui Hawaii—Kahului Arpt	TerVOR-R-190, Amdt. 7	Revised
Lovelock, Nev.—Derby Arpt	VOR (R-005), Amdt. 1	Revised
Saginaw, Mich.—Tri-City Arpt	TerVOR-23, Amdt. 4	Revised

Location	Procedure	Action
VOR/DME		
Garden City ,Kans.—Garden City Mun Arpt	VOR/DME #1, Orig.	Established
Garden City ,Kans.—Garden City Mun Arpt	VOR/DME #2, Orig.	Established
Manchester, N.H.—Grenier Fld (Manchester Mun)	VOR/DME #1, Orig.	Established
Morgantown, W. Va.—Morgantown Mun Arpt	VOR/DME #1, Amdt. 2	Revised
Presque Isle, Me.—Presque Isle Mun Arpt	VOR/DME #1, Orig.	Established
Presque Isle, Me.—Presque Isle Mun Arpt	VOR/DME #2, Orig.	Established
Sinton, Tex.—Sinton Arpt	VOR/DME #1, Amdt. 1	Revised
Sioux City, Iowa—Sioux City Mun Arpt	VOR/DME #2, Amdt. 3	Revised
Wilmington, Delaware—Greater Wilmington Arpt	VOR/DME #1, Orig.	Established
INSTRUMENT LANDING SYSTEM		
Columbia, S.C.—Columbia Arpt	ILS-10, Amdt. 1	Revised
Dallas, Tex.—Dallas Love Fld	ILS-13L, Amdt. 11	Revised
Dallas, Tex.—Dallas Love Fld	ILS 31R, (Back Course) Amdt. 11	Revised
Great Falls, Mont.—Great Falls Int'l Arpt	ILS-34, Amdt. 11	Revised
Kahului, Maui, Hawaii—Kahului Arpt	ILS-2, Amdt. 3	Revised
Lake Charles, La.—Lake Charles Mun Arpt	ILS-15, Amdt. 7	Revised
Lansing, Mich.—Capital City Arpt	ILS 27, Amdt. 12	Revised
Louisville, Ky.—Standiford Fld	ILS-1, Amdt. 23	Revised
Louisville, Ky.—Standiford Fld	ILS-19, (Back Course), Amdt. 6	Revised
Louisville, Ky.—Standiford Fld	ILS-29, Amdt. 4	Revised
Medford, Ore.—Medford Mun Arpt	ILS-14, Amdt. 7	Revised
New Orleans, La.—New Orleans Int'l (Moisant)	ILS-10, Amdt. 16	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	ILS-17, (Back Course) Amdt. 10	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	ILS-35, Amdt. 10	Revised
Sioux City, Iowa—Sioux City Mun Arpt	ILS-13, Amdt. 4 (Back Course)	Revised
Sioux City, Iowa—Sioux City Mun Arpt	ILS-31, Amdt. 10	Revised
Tampa, Fla.—Tampa Int'l Arpt	ILS-36R, Amdt. 10, (Back Course)	Established
Waco, Tex.—Waco Mun Arpt	ILS-18, Orig.	Established
Waco, Tex.—Waco Mun Arpt	ILS-36, (Back Course), Orig.	Established
Youngstown, Ohio—Youngstown Mun Arpt	ILS-14, Amdt. 5	Revised
RADAR		
Albuquerque, N. Mex.—Albuquerque Sunport/Kirtland AFB	No. 1, Amdt. 14	Revised
Lawton, Okla.—Lawton Mun Arpt	No. 1, Orig.	Established
Louisville, Ky.—Standiford Fld	No. 1, Amdt. 4	Revised
New Orleans, La.—New Orleans Int'l (Moisant)	No. 1, Amdt. 3	Revised
Oklahoma City, Okla.—Will Rogers World Arpt	No. 1, Amdt. 5	Revised

The following Standard Instrument Approach Procedures will be revised, established, or cancelled effective Apr. 17, 1965:

AUTOMATIC DIRECTION FINDING		
Alpena, Mich.—Phelps Collins Arpt	No. 1, Amdt. 6	Revised
Birmingham, Ala.—Municipal	No. 2, Amdt. 2	Revised
Cleveland, Ohio—Cleveland Hopkins Int'l Arpt	No. 1, Amdt. 1	Revised
Ft. Smith, Ark.—Ft. Smith Mun	No. 1, Amdt. 15	Revised
Houston, Tex.—William P. Hobby Arpt	No. 1, Amdt. 23	Revised
Houston, Tex.—William P. Hobby Arpt	No. 2, Amdt. 3	Revised
Houston, Tex.—William P. Hobby Arpt	No. 3, Amdt. 4	Revised
Houston, Tex.—William P. Hobby Arpt	No. 4, Amdt. 2	Revised
Lincoln, Nebr.—Lincoln Mun/AFB	No. 1, Amdt. 1	Revised
Lincoln, Nebr.—Lincoln AFB/Mun	No. 2, Orig., efctv 29 Aug 64	Cancelled
Montgomery, Ala.—Dannelly Fld	No. 1, Amdt. 5	Revised

Location	Procedure	Action
VHF OMNIRANGE		
Elgin, Ill—Elgin Arpt	No. 1, Amdt. 1	Revised
Ft. Lauderdale, Fla.—Broward Co Int'l Arpt	No. 1, Orig., 16 Feb 63	Cancelled
Ft. Smith, Ark.—Ft. Smith Mun	No. 1, Amdt. 9	Revised
Junction, Tex.—Kimble Co Arpt	No. 1, Amdt. 5	Revised
Lincoln, Neb.—Lincoln Mun/AFB	No. 1, Orig.	Revised
Montgomery, Ala.—Dannelly Fld	No. 1, Amdt. 11	Revised
Poughkeepsie, N.Y.—Dutchess Co Arpt	No. 1, Amdt. 3	Revised
Redmond, Ore.—Roberts Fld	No. 1, Amdt. 4	Revised
TERMINAL VOR		
Alliance, Neb.—Alliance Mun	TerVOR-30, Amdt. 2	Revised
Ft. Lauderdale, Fla.—Ft. Lauderdale-Hollywood Int'l Arpt	TerVOR-27, Orig.	Revised
Richmond, Va.—Richard E. Byrd Flying Fld	TerVOR-33, Amdt. 10	Revised
VOR/DME		
Ft. Smith, Ark.—Ft. Smith Mun	VOR/DME #1, Orig.	Established
Houston, Tex.—William P. Hobby Arpt	VOR/DME #1, Amdt. 3	Revised
Houston, Tex.—William P. Hobby Arpt	VOR/DME #2, Amdt. 4	Revised
Houston, Tex.—William P. Hobby Arpt	VOR/DME #3, Amdt. 4	Revised
Houston, Tex.—William P. Hobby Arpt	VOR/DME #4, Amdt. 1	Revised
Kankakee, Ill.—Greater Kankakee Arpt	VOR/DME #1, Orig.	Revised
Ocala, Fla.—Ocala Mun (Jim Taylor Fld)	VOR/DME #1, Amdt. 3	Revised
Redmond, Ore.—Robert Fld	VOR/DME #1, Amdt. 2	Revised
INSTRUMENT LANDING SYSTEM		
Cleveland, Ohio—Cleveland Hopkins Int'l Arpt	ILS-5R, Amdt. 2	Revised
Houston, Tex.—William P. Hobby Arpt	ILS-3, Amdt. 25	Revised
Houston, Tex.—William P. Hobby Arpt	ILS-21, Amdt. 11, (Back Course)	Revised
Lincoln, Neb.—Lincoln Mun/AFB	ILS-17R, Orig., (Back Course)	Established
Lincoln, Neb.—Lincoln Mun/AFB	ILS-35L, Amdt. 1	Revised
Montgomery, Ala.—Dannelly Fld	ILS-9, Amdt. 10	Revised
Tulsa, Okla.—Tulsa Int'l Arpt	ILS-17L, Amdt. 1, (Back Course)	Revised
Tulsa, Okla.—Tulsa Int' Arpt	ILS-35R, Amdt. 13	Revised
Wake Island—Wake Island Arpt	ILS-10, Amdt. 2, (LOC Only)	Revised
RADAR		
Agana, Guam M.I.—NAS Agana	No. 1, Amdt. 1	Revised
Birmingham, Ala. Mun	No. 1, Amdt. 6	Revised
Houston, Tex.—William P. Hobby Arpt	No. 1, Amdt. 12	Revised
Lincoln, Neb.—Lincoln Mun/AFB	No. 1, Orig.	Established
Montgomery, Ala.—Dannelly Fld	No. 1, Amdt. 2	Revised
Tulsa, Okla.—Tulsa Int'l Arpt	No. 1, Amdt. 4	Revised

DATES OF LATEST EDITIONS

Aeronautical Charts
Coast and Geodetic Survey

SECTIONAL

	Current Edition Date	Next Edition Date
Aberdeen	Mar 4 65	8/19/65
Albany	Feb 4 65	7/22/65
Albuquerque	Mar 4 65	8/19/65
Aroostook	Apr 30 64	4/29/65
Austin	Nov 12 64	4/29/65
Beaumont	Apr 1 65	9/16/65
Bellingham	Dec 10 64	5/27/65
Birmingham	Oct 15 64	4/29/65
Boise	May 28 64	5/27/65
Boston	Mar 4 65	9/16/65
Burlington	Nov 12 64	4/29/65
Butte	Feb 4 65	7/22/65
Casper	Apr 1 65	10/14/65
Charlotte	Oct 15 64	4/29/65
Chattanooga	Feb 4 65	8/19/65
Cheyenne	Dec 10 64	6/24/65
Chicago	Dec 10 64	5/27/65
Cincinnati	Feb 4 65	8/19/65
Cleveland	Nov 12 64	5/27/65
Corpus Christi	Feb 4 65	7/22/65
Dallas	Feb 4 65	7/22/65
Del Rio	Nov 12 64	11/11/65
Denver	Dec 10 64	6/24/65
Des Moines	Nov 12 64	4/29/65
Detroit	Jan 7 65	7/22/65
Douglas	Oct 15 64	10/14/65
Dubuque	Apr 1 65	9/16/65
Duluth	Jul 23 64	7/22/65
Elko	Dec 10 64	5/27/65
El Paso	Mar 4 65	8/19/65
Fargo	Mar 4 65	8/19/65
Glacier Park	Oct 15 64	10/14/65
Grand Canyon	Dec 10 64	5/27/65
Grand Junction	Nov 12 64	5/27/65
Green Bay	Dec 10 64	5/27/65
Huntington	Feb 4 65	8/19/65
• Jacksonville	Nov 12 64	4/29/65
Kansas City	Feb 4 65	8/19/65
→ Klamath Falls	Apr 1 65	9/16/65
Kootenai	Feb 4 65	2/3/66
La Grande	Feb 4 65	7/22/65
Lake Huron	May 28 64	5/27/65
Lake Superior	Mar 4 65	8/19/65
Lake of Woods	Aug 20 64	8/19/65
* Lewiston	Nov 12 64	4/29/65
→ Lincoln	Apr 1 65	10/14/65
Little Rock	Jan 7 65	7/22/65
Los Angeles	Mar 4 65	8/19/65
→ Miami	Apr 1 65	9/16/65
* Miles City	Oct 15 64	4/29/65
Milwaukee	Dec 10 64	5/27/65
Minot	Mar 4 65	9/16/65
Mobile	Feb 4 65	7/22/65
Mt. Shasta	Nov 12 64	5/27/65
Mt. Whitney	Jan 7 65	6/24/65
Nashville	Jan 7 65	7/22/65
→ New Orleans	Apr 1 65	9/16/65
→ New York	Apr 1 65	10/14/65
Norfolk	Mar 4 65	9/16/65
• Oklahoma City	Nov 12 64	4/29/65
* Orlando	Nov 12 64	4/29/65
Phoenix	Jan 7 65	7/22/65
→ Pocatello	Apr 1 65	10/14/65
Portland	Feb 4 65	7/22/65
→ Prescott	Apr 1 65	9/16/65
Rapid City	Dec 10 64	6/24/65
Reno	Jan 7 65	6/24/65
Roswell	Jan 7 65	6/24/65
Sacramento	Jan 7 65	6/24/65
→ Salina	Apr 1 65	9/16/65
Salt Lake City	Dec 10 64	5/27/65
San Antonio	Jan 7 65	6/24/65
San Diego	Mar 4 65	8/19/65
San Francisco	Jan 7 65	6/24/65
Savannah	Mar 4 65	9/16/65
Seattle	Dec 10 64	6/24/65
Shreveport	Jan 7 65	6/24/65
Sioux City	Nov 12 64	5/27/65
Spokane	Dec 10 64	6/24/65
Trinidad	Mar 4 65	9/16/65
* Tulsa	Oct 15 64	4/29/65
• Twin Cities	Nov 12 64	4/29/65
→ Washington, D.C.	Apr 1 65	10/14/65
Wichita	Jan 7 65	6/24/65
Williston	Jul 23 64	7/22/65
→ Winston-Salem	Apr 1 65	10/14/65
Yellowstone Park	Mar 4 65	9/16/65
Hawaiian Is.	Dec 10 64	12/9/65

LOCAL

	Current Edition Date	Next Edition Date
Atlanta	Oct 15 64	4/29/65
Boston	Mar 4 65	9/16/65
Brownsville	Feb 4 65	7/22/65
Chicago	Dec 10 64	5/27/65
Cleveland	Nov 12 64	5/27/65
Dallas-Ft. Worth	Feb 4 65	7/22/65
Dayton	Feb 4 65	8/19/65
Denver	Dec 10 64	6/24/65
Detroit	Jan 7 65	7/22/65
Honolulu	Jan 7 65	1/6/66
Indianapolis	Feb 4 65	8/19/65
* Jacksonville	Nov 12 64	4/29/65
Kansas City	Feb 4 65	8/19/65
Los Angeles	Mar 4 65	8/19/65
→ Miami	Apr 1 65	9/16/65
Milwaukee	Dec 10 64	5/27/65
• Montgomery	Oct 15 64	4/29/65
→ New York	Apr 1 65	10/14/65
Norfolk	Mar 4 65	9/16/65
→ Philadelphia	Apr 1 65	10/14/65
Phoenix	Jan 7 65	7/22/65
Pittsburgh	Nov 12 64	5/27/65
St. Louis	Feb 4 65	8/19/65
San Diego	Mar 4 65	8/19/65
San Francisco	Jan 7 65	6/24/65
San Juan	Dec 10 64	12/9/65
Seattle	Dec 10 64	6/24/65
→ Washington	Apr 1 65	10/14/65

DISCONTINUED
New Edition published. Obsoletes Earlier Edition on Apr. 1, 1965
New Edition will be published prior to Effective date Apr. 29, 1965

WORLD AERONAUTICAL - UNITED STATES

WAC 62	June 16, 1964
WAC 63	July 7, 1964
WAC 64	Aug. 24, 1964
WAC 76	Oct. 1, 1964
WAC 77	Oct. 2, 1964
WAC 78	Oct. 26, 1964
WAC 117	May 6, 1964
WAC 118	June 3, 1964
WAC 119	July 8, 1964
WAC 135	July 9, 1964
WAC 136	Aug. 3, 1964
WAC 137	Aug. 7, 1964
WAC 138	Mar. 17, 1964
WAC 139	Mar. 3, 1964
WAC 186	Mar. 17, 1964
WAC 190	July 6, 1964
WAC 191	Aug. 5, 1964
WAC 192	Aug. 19, 1964
WAC 193	Aug. 10, 1964
* WAC 215	Jan. 20, 1964
WAC 216	Aug. 31, 1964
WAC 217	Aug. 28, 1964
WAC 218	Apr. 6, 1964
WAC 219	Apr. 2, 1964
WAC 262	Apr. 27, 1964
WAC 263	Apr. 21, 1964
WAC 264	Apr. 15, 1964
WAC 265	Sept. 25, 1964
WAC 266	Oct. 2, 1964
WAC 267	Nov. 13, 1964
WAC 268	Mar. 18, 1964
WAC 269	Aug. 26, 1964
* WAC 304	Jan. 21, 1964
WAC 305	Sept. 4, 1964
WAC 306	Oct. 5, 1964
WAC 307	Oct. 7, 1964
WAC 308	Nov. 16, 1964
➔ WAC 309	Nov. 24, 1964
➔ WAC 310	Nov. 30, 1964
WAC 357	May 8, 1964
WAC 358	May 20, 1964
WAC 359	Oct. 28, 1964
WAC 360	Oct. 27, 1964
WAC 361	Oct. 27, 1964
WAC 362	July 28, 1964
WAC 363	Aug. 3, 1964
* WAC 364	Jan. 23, 1964
WAC 404	July 29, 1964
WAC 405	Feb. 14, 1964
WAC 406	Aug. 12, 1964
WAC 407	Mar. 6, 1964
WAC 408	June 15, 1964
WAC 409.	June 25, 1964
WAC 410	June 25, 1964
WAC 466	May 27, 1964
WAC 467	June 8, 1964
➔ WAC 468	Dec. 26, 1964
➔ WAC 469	Jan. 4, 1965
WAC 470	Feb. 5, 1964
WAC 471	Apr. 3, 1964
➔ WAC 522	Dec. 23, 1964
WAC 525	June 1, 1964

JET NAVIGATION

JN 29	United States Northwest	Apr. 3, 1964
JN 30	United States Northeast	Mar. 2, 1964
JN 44	United States Southwest	Feb. 3, 1964
JN 45	United States Southeast	Jan. 4, 1964

PLANNING

† AP 9	Nov. 6, 1963
‡ VFR/IFR	Jan. 7, 1965
AERONAUTICAL CHART CATALOG	Dec. 1964

AIRCRAFT POSITION

3071	North Atlantic	Oct. 12, 1964
➔ 3073	Caribbean Sea	Feb. 1, 1964
3087	Central Pacific	Dec. 1, 1964
3094	North Pacific	Aug. 15, 1964
3096	United States-Honolulu	Dec. 21, 1964
3097	North America-Europe	Dec. 11, 1964

† DISCONTINUED
➔ New Edition published. Obsoletes Chart of Earlier date.
* New Edition will be published in about one month.
‡ New Chart. Cancels Chart AP-9

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart	City or Town	VOR	ADF	ILS	RNG
		ALASKA			
30	Anchorage (Intnl.)		3-20-65 (1)	3-20-65R6	
33	Aniak				3-27-65
91	Juneau	3-6-65 (1)	3-6-65 (1)		
35	Kenai	3-27-65 (1)			3-27-65
		ARIZONA			
2	Phoenix (Sky Harbor)	3-20-65 (1)	3-20-65 (1)		
		ARKANSAS			
1	Little Rock (Adams Fld.)	3-12-65 (1)	3-12-65 (1)	3-12-65R4	
			3-12-65 (2)	3-12-65R22 (BC)	
1	Texarkana (Mun.)	3-20-65 (1)			
		CALIFORNIA			
	Burbank (Lockheed Air Terminal)		3-12-65 (1)	3-12-65R7	
	Crescent City (Jack McNamara Field)	2-26-65R11			
	Fortuna (Rohnerville)	3-13-65 (1)			
	Los Angeles (Intnl)	3-5-65DME (1)	3-5-65 (2)	3-5-65R7R&L (BC)	
		3-5-65DME (2)			
		3-5-65R7L			
	Los Angeles (Van Nuys)		3-27-65 (1)	3-27-65-08	
	Oakland (Metro. Intnl)	3-19-65Rad-114	3-19-65 (1)	3-19-65R29	
		3-19-65DME (1)		3-19-65R11 (BC)	
		3-19-65DME (2)		3-19-65R27R	
	Ontario (Intnl)		3-12-65 (1)	3-12-65R25	
	Palmdale (AF Plant No.42)	3-12-65R22			
		3-12-65DME (1)*			
	San Diego (Intnl-Lindberg Field)	3-20-65R9			
	Thermal	3-20-65Rad - 125*			
	Visalia	3-12-65 (1)			
		COLORADO			
	Colorado Springs (Peterson)	3-13-65 R30	3-13-65 (1)	3-13-65R35	
				3-13-65R17(BC)	
	Pueblo (Memorial)	3-6-65 (1)	3-6-65 (1)	3-6-65R7	
			3-6-65 (2)	3-6-65R25 (BC)	
		CONNECTICUT			
1	Danbury	3-6-65 (1)*			
	Hartford (Brainard Fld)	3-19-65 (1)	3-19-65 (1)		
	New Haven (Tweed)	3-27-65R1			
		FLORIDA			
	Fort Lauderdale (Hollywood Intnl)	2-26-65 (1)	2-26-65 (1)		
		2-26-65 R9			
		2-26-65R13			
	Gainesville	3-20-65DME (1)			
	Jacksonville (Imeson)	2-26-65 (1)	2-26-65 (1)	2-26-65R5	
		2-26-65DME (1)	2-26-65 (2)		
		2-26-65DME (2)			

NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		FLORIDA (continued)			
305	Orlando (Herndon)		3-27-65 (1)	3-27-65R7 3-27-65R25 (BC)	
449	West Palm Beach (Intnl)		3-5-65 (1)	3-5-65R9	
		GEORGIA			
146	Columbus (Lawson AAF)	3-13-65R2	3-13-65 (1) 3-13-65 (2)		
636	Columbus (Muscogee Co.)	3-4-65 (1)			
		IDAHO			
124	Dubois	3-5-65 (1)			
327	Pocatello	2-26-65 (1)	2-26-65 (1)	2-26-65R21	
		ILLINOIS			
5103	Aurora (Mun.)	3-12-65 (1)			
5056	Centralia	2-26-65 (1)			
81	Chicago (Midway)		3-5-65 (1) 3-5-65 (2)	3-5-65R13R 3-5-65R31L&R	
954	Rockford (Greater)	3-20-65 (1) 3-20-65DME (1)	3-20-65 (1)	3-20-65R36 3-20-65R18(BC)	
		KANSAS			
498	Liberal	3-13-65R35			
5241	Manhattan		3-27-65 (1)		
620	Topeka (Philip Billard)	3-20-65 (1)	3-20-65 (1)	3-20-65R13 3-20-65R31 (BC)	
5141	Wichita (Beech)	3-27-65 (1)			
987	Wichita		3-27-65 (1)	3-27-65 R1	
		LOUISIANA			
609	New Orleans (Moisant Fld)	3-13-65 (1)			
		MARYLAND			
555	Aberdeen (Phillips AAF)		2-26-65 (1)		
5212	Gaithersburg (Montgomery County)		2-26-65 (1)		
5114	Hagerstown	3-12-65 (1)			
		MASSACHUSETTS			
5039	Beverly		2-26-65 (1)		
58	Boston (Logan Intnl)	2-26-65R27 2-26-65DME (1) 2-26-65R33 3-5-65R4R 3-5-65R22L	2-26-65 (1) 2-26-65 (2) 2-26-65 (3) 2-26-65 (4)	2-26-65R4R 2-26-65R33	
675	Hyannis (Barnstable)		3-20-65 (1)	3-20-65R24	
725	Norwood (Memorial)		2-26-65 (1)		

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		MICHIGAN			
	Battle Creek (Kellogg Regional)	3-6-65R4 3-6-65R22	3-6-65 (1)	3-6-65R22	
7	Detroit (Willow Run	2-26-65R5R 2-26-65R23L 2-26-65R27L	2-26-65 (1)	2-26-65R5R&L	
60	Fremont	3-20-65 (1)			
13	Grand Haven (Mem. Airpark)	3-13-65 (1)			
4	Lansing (Capital City)	3-12-65 (1)	3-12-65 (1)	3-12-65R27 3-12-65R9 (BC)	
8	Saginaw (Tri-City)	3-12-65R14	3-12-65 (1)		
		MINNESOTA			
59	Hibbing (Chisholm-Hibbing)	3-12-65 (1) 3-12-65 (2)			
		MISSISSIPPI			
32	Jackson (Thompson Fld)	3-19-65 (1) 3-19-65DME (1)	3-19-65 (1)	3-19-65R15	
54	Madison (Campbell Fld)	3-27-65 (1)			
		MISSOURI			
31	Grain Valley (East Kansas City)	3-19-65 (1)			
		MONTANA			
2	Helena	3-5-65 (1)			3-5-65
		NEBRASKA			
3	Grand Island	3-19-65R12 3-19-65R17			
17	Hastings (Municipal)	3-27-65R32*			
)	Imperial		3-13-65 (1)		
1	Kearney	3-4-65R18*			
		NEVADA			
5	Reno		3-20-65 (2)	3-20-65R16	
		NEW HAMPSHIRE			
5	Laconia		2-26-65 (1)		
36	Nashua (Boire Fld)		3-27-65 (2)*		
32	Whitefield		3-27-65 (1)		
		NEW JERSEY			
75	Caldwell (Wright)		3-27-65 (1)*		
5	Newark		3-5-65 (1)	3-5-65R4	
			3-5-65 (2)	3-5-65R22	
2	Trenton (Mercer Co.)	3-19-65 (1)			
		NEW YORK			
3	Glens Falls (Warren Co.)	2-26-65 (1) 2-26-65DME (1)			
34	Montgomery (Orange Co.)	3-27-65 (1)			

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		NEW YORK (Continued)			
610	New York (John F. Kennedy Intnl)	3-12-65R13L&R			
289	New York (La Guardia)	3-27-65 (1) 3-27-65 (2)	3-27-65 (1) 3-27-65 (2)	3-27-65R4 3-27-65R22 3-27-65R13	
911	Plattsburgh	3-27-65 (1)	3-27-65 (1)		
351	Rochester (Monroe Co.)	3-13-65R1 3-13-65R10 3-13-65R4* 3-13-65R22*	3-13-65 (1)	3-13-65R28	
		NORTH CAROLINA			
78	Charlotte (Douglas Field)	3-20-65R23 3-20-65DME (1)*			
5069	Fort Bragg (Simmons AAF)	3-27-65 R27			
178	Greensboro (High Point)	2-26-65 (1)	2-26-65 (1)	2-26-65R14 2-26-65R32(BC)	
670	New Bern (S immons-Nott)	3-13-65 (1)	3-13-65 (1)		
459	Wilmington (New Hanover County)	3-6-65 (1)			
		NORTH DAKOTA			
144	Fargo (Hector)		3-12-65 (1)	3-12-65R35	
		OHIO			
860	Mansfield	3-27-65 (1)	3-27-65 (1)	3-27-65R32	
184	Toledo (Express)	3-27-65 (1) 3-27-65DME (1)		3-27-65R25(BC)	
753	Willoughby (Lost Nation)		3-27-65 (1) 3-27-65 (2)		
		OKLAHOMA			
230	Fort Sill (Henry Post AAF)		3-27-65 (2)		
		OREGON			
345	Redmond (Roberts Field)	3-6-65 (1) 3-6-65DME (1)	3-6-65 (1)*		
		PENNSYLVANIA			
100	Altoona (Martinsburg) (Blair Co.)	3-19-65 (1)			
139	Erie (Port Erie)	2-26-65 (1)	2-26-65 (1) 2-26-65 (2)	2-26-65R6	
570	Pittsburgh (Greater)	3-27-65 DME (1) 3-27-65R32	3-27-65 (1) 3-27-65 (3)* 3-27-65 (4)	3-27-65R28L 3-27-65R10R(BC) 3-27-65R10L	
5273	Selinsgrove (Penn Valley)	3-6-65 (1)*			
		SOUTH CAROLINA			
76	Charleston (AFB/Mun.)	3-20-65DME (1) 3-20-65DME (2)			
89	Columbia	2-26-65 (1)	2-26-65 (1)	2-26-65R10*	

*NEW CHART

INSTRUMENT APPROACH PROCEDURE CHARTS

NEW CHARTS AND NEW EDITIONS

U.S. DEPARTMENT OF COMMERCE • • COAST AND GEODETIC SURVEY

Chart No.	City or Town	VOR	ADF	ILS	RNG
		SOUTH DAKOTA			
14:	Watertown	3-6-65 (1) 3-6-65 DME (1)			
		TENNESSEE			
53	Memphis (Memphis Metropolitan)		3-27-65 (2)	3-27-65R35	
		TEXAS			
	Abilene (Municipal)	3-13-65 (1)	3-13-65 (1)	3-13-65R35 3-13-65R17(BC)	
81	Alice (Intnl)	3-5-65R31 3-5-65Rad-261			
1	Brownsville (Rio Grande Valley Intnl)		3-27-65 (1)	3-27-65R17L	
68	Dallas (Addison)	3-6-65R15 3-6-65R33			
268	Del Rio (Intnl)	3-20-65 (1)	3-20-65 (1)		
66	Fort Worth (Greater South-West Intnl, Dallas Ft. Worth)	2-26-65R13 2-26-65R35	2-26-65 (1)	2-26-65R13 2-26-65R31(BC)	
269	Laredo	2-26-65 (1)			
57	San Angelo (Mathis Fld.)	3-5-65 (1)	3-5-65 (1)	3-5-65R3 3-5-65R21(BC)	
72	San Antonio (Stinson)	3-19-65 (1)			
54	Wichita Falls (Sheppard AFB, Air Terminal)	3-6-65 (1)		3-6-65R15(BC)	
		VERMONT			
1	Burlington	3-5-65 (1)	3-5-65 (1)	3-5-65R15	
		WASHINGTON			
12	Everett (Paine)		3-20-65 (1)	3-20-65R16	
14	Seattle (Boeing Fld)		3-22-65 (1) 3-22-65 (2)	3-22-65R13	3-22-65
12	Seattle (Tacoma Intnl)		3-22-65 (1) 3-22-65 (2)	3-22-65R34 3-22-65R16	3-22-65
		WISCONSIN			
9	La Crosse	3-12-65R13	3-12-65 (1)		
10	Oshkosh (Winnebago Co.)	3-12-65R36	3-12-65 (1)	3-12-65R9	
85	Rhinelander (Oneida Co.)	3-19-65R15			
		WYOMING			
	Cheyenne	2-26-65 (1)	2-26-65 (1)	2-26-65R26	
5	Laramie (Brees Fld)	3-27-65 (1)			
		PACIFIC ISLANDS			
18	Tutuila Island, American Samoa(Pago Pago Intnl)	3-20-65Rad-230	3-20-65 (2)		
		PUERTO RICO			
4	San Juan (Intnl.)	2-26-65 (1) 2-26-65 R7 2-26-65 R25	2-26-65 (1)		
		RADAR			
dar	Pages 1 thru 18	3-19-65			

*NEW CHART

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION III A

NOTICES TO AIRMEN

10 DECEMBER 1964

Section III–A—NOTICES TO AIRMEN

This section is issued every 14 days ond is primarily designed to supplement Section III of the IM. It contains selected notices from the daily NOTAM Summary, Airman Advisories, new or revised il Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

OTE: Data printed entirely in bold face type are considered permanent and will usually be cited only once. Such information ould be noted on charts and records. Temporary information is ntinuously cited until the condition is no longer in effect.

OTE: Data is arranged in alphabetical order by State (and within a State by City or locality).

EW OR REVISED DATA: New or revised data are indicated by a ock dot (●) preceding the item.

ALABAMA

AYOU LA BATRE, BAY VIEW ARPT: Paved 3000' drag strip 75'S and parallel to turf ruwy. P-line each side of drag strip and wire across strip 75' from E end. N-S turf ruwy under constr, covered with stumps not to be used for acft operns.

IRMINGHAM MUN ARPT: 833.5' (1810' MSL) lgtd TV twr constrd 5 nmi SSW (207° T) at lat 33°29'25.5" long 86°47'48".

UCKER: Extsv IFR and VFR student trng conducted in area bounded by V–115 W, V-241 S, V-70 N and V-241 E. Normal hrs of operns 0700-2400 Mon-Fri from surface to 10,000'.

OBILE, BROOKLEY AFB: Caution, effective immediately and until further notice all aircraft are warned of extensive high performance jet (F-105) traffic in the following area during dalgt hrs only: From the surface to 5000' MSL over the Mississippi Sound from a point 30°15'N, 88°04'W to a point 30°15'N, 88°30'W. Concerned aircraft will be flying a race track pattern between the above listed coordinates for the purpose of contour map/terrain avoidance radar calibration. Therefore, the pilots in the F-105 aircraft will be limited to the amount of visual surveillance they can give to air to air separation under VFR conditions.

ELMA CRAIG AFB: Extsv jet student trng conducted during dalgt hrs and occasional ngts Mon-Fri from surface to 9000' MSL. Craig ctl zone saturated dalgt hrs to 9000' MSL during student trng. VFR acft should contact Craig twr on 236.6 or 119.5 mc for tfc advisories. Craig Twr is avbl for lndg advisories for acft lndg Selfield. Clsd exep for ofl bus. clsd to transit aero club acft.

ARIZONA

HUACHUCA: See Yuma Special Notice.

LA BEND: See Yuma Special Notice.

ARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

MESA, FALCON FLD. Until Feb 20, 1965, small rocket test firing within one mile radius of a point 3 nmi N maximum height 2,500 AGL. One day per week 1100 MST to 1500 MST. Contact Phoenix FSS for details.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hi-density jet tfc will be operg VFR on V93/V94 between longitude 113 45'W and longitude 112 18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V93 V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: VOR 1, Amdt. 10 is revised as follows, efctv indtly: Crs and distance PRC VOR to arpt, 112 ---4 mi. Add note: Final approach course is to NE side of arpt.

TUCSON INTL ARPT: ADF Proc. No. 1, Orig. is revised as follows, effective immediately: T-dn, more than two eng., more than 65 knots, 200-½ vice 300-1.

TUCSON, RYAN FLD: About Nov 16, all rnwys will be clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000′ MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307. Efctv Jan. 15, 1964 to Jan 15, 1965 the flwg R–2303 Yuma East restricted area is established: Bndrys: beginning at 33°, 114°17′20″; thence N along State Highway 95 to 33°28′, 114°13′; 33°24′, 113°39′; 33°13′12″, 113°21′36″; 33°07′17″, 113°24′10″; 33°02′, 113°33′50″; 33°02′, 113°56′30″; 33°00′, 114°11′; to point of beginning. Designated Altitudes: 1500′ above the surface to 20,000′ MSL. Time of Designation: Continuous, Jan. 15, 1964 to Jan. 15, 1965. Controlling Agency: Federal Aviation Agency, Los Angeles ARTC Center. Using Agency: Commanding Officer, Yuma Proving Ground, Yuma Ariz.

ARKANSAS

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′. Rnwy 22 and 31 not avbl for air carrier acft ngt lndgs due to unlgtd obstns apch end.

CALIFORNIA

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with operni transponder.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″; clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; to 36°34′45″, 121°48′35″; 36°35′45″, 121°40′45″; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: Beginning on or about Nov 25, a 90-day test will be conducted by the LAX FSS to evaluate the effectiveness of new concept in Transcribed Weather Broadcast script. The new concept will differ from the present procedures in that meteorological and Notice to Airmen data will be broadcast as applied to six commonly-travelled routes out of the Los Angeles Metropolitan Area. Enroute weather reports will follow the weather forecast for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes will be spoken. Dissemination will continue to be over the Los Angeles "Homer" on 332 kc; by telephone Spring 6–1640 or Spring 6-1641 and will additionally be fed into a special "listening-only" interphone circuit paralleling the present "fastline" circuit serving subscribers at Van Nuys Arpt; Lockheed Air Terminal in Burbank; San Fernando Arpt; Whiteman Arpk; in Pacoima and Rancho Conejo Arpt near Thousand Oaks. For the duration of the test period Weather Bureau pilot automatic telephone weather answering PATWAS will be discontinued, the two telephone numbers listed above are presently in use in the PATWAS program. As soon as practicable the other PATWAS telephone numbers Poplar 2–4111 and Davis 3–4626 will be connected to the Transcribed Weather Broadcast equipment. Until this is accomplished calls on these lines will be referred to the two Spring numbers.

MODESTO CITY-COUNTY ARPT: All pilots must ctc Stockton Apch Ctl prior to conducting IFR flight operns in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

POINT ARGUELLO: Civil acft desiring to transit W–532 call Navy Point Arguello on 122.5 mcs (guard 24 hrs) and listen for reply on 124.4 mcs.

RIVERSIDE MUN ARPT: Efctv Dec 10, 1964 Riverside control zone will be efctv from 0500 to 2130 local time. All pilots must contact March Apch Ctl prior conducting IFR flight operns in the Riverside control zone.

SANTA BARBARA RDO: Width of Naples FM at intercept alt on ILS lclzr crs 3200′ or slightly wider than standard ILS OM. During VOR outages or shutdowns for maintenance, flt checks reveal numerous usable signals being emited by acft rdo shops in Los Angeles Area on Santa Barbara VOR freq 114.9 mc are to be disregarded.

COLORADO

BROOMFIELD, JEFFERSON CO ARPT: First 3000′ of rnwy 11 plus associated txwy clsd for resurfacing, usable length both directions 3000′. Ctc unicom for instructions.

DENVER, LOWRY AFB: Ctld firing (demolition) area in use daily except Sat, Sun and holidays 1430–2330Z within a radius of 2500′ of point lctd 104°41′11″W, 39°39′30″N up to 1000′ above surface.

EAGLE: Ctld firing for use of Camp Hale. Area 5 nmi radius from point lat 39°27′, long 106°19′30″, max ordinate of firing 15,000′ MSL. Time of use continuous 24 hrs daily. Controlling agency: Commanding General, Fort Carson.

PUEBLO: Controlled Firing (demolition) area for use of the Pueblo Ordnance Depot established within the following described area: bounded on N by lat 38°22′00″ E, long 104°21′22″; S, lat 38°18′00″; W, long 104°25′50″. Hrs of usage: 0900–1600 MST, Mon-Fri. Max alt 5000′ above the surface.

DELAWARE

ILMINGTON, GREATER WILMINGTON AIRPORT: Proc. No. ILS-1, Amdt. 8, efctv 8 Aug 64. During the period of the West Chester VORTAC shutdown, the following temporary missed approach procedure will be in effect: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished, make climbing left turn to 1630' and return to Wilmington LOM. Hold South, one-minute right turns, inbound crs. 014 degrees.

DISTRICT OF COLUMBIA

ASHINGTON DULLES INT'L AIRPORT: ILS-19R, Amdt. 4-9-7-63 effective Immediately missed approach revised: Make right turn to intercept HRN radial 227 degrees climb to 4000 ft proceed to Blue Ridge Int via V39 and V144. Hold West on Blue Ridge Int LDN 110 degrees radial, 110 degrees inbound 4000 ft one minute left turns.

ASHINGTON (CHANTILLY, VA.), DULLES INTL ARPT: Proc No. ILS-19R, amdt 4, efctv 7 Sept 1963. RVR not commissioned rnwy 19, basic minimums remain in effect.

ASHINGTON, MT VERNON: Low flying acft requested o avoid immediate vcnty Mt. Vernon estate lctd W bank otomac River 10 mi S Washington Natl Arpt.

ASHINGTON NATL ARPT: The Weather Bureau and he Federal Aviation Agency will jointly institute a runway visibility observation program for runways 18, 36 nd 15. Whenever the runway visibility system serving unway 36 is inoperative with visibility one and one half nile or less or runways 18 and 15 are in use for landing ircraft and the visibility is at or below one and one alf mile an observer will be stationed at the approach nd of the landing runway and will report visibility alues manually in one quarter mile increments. These alues shall be used in conjunction with reported ceilng and will be mandatory for the runway being served nd should not be construed as runway visual range RVR) values.

ASHINGTON NATL ARPT: JET POLICY FOR VASHINGTON NATIONAL AIRPORT—Due to mited ground handling facilities at the Washington ational Airport, flight operations of only those turbot aircraft that meet the following criteria can be accomodated: A. Except under emergency conditions, nly approved types of turbojet aircraft of short or edium range (1) are engaged in corporate, private harter or rental type operations, and (2) solely intnd to utilize the Airport's General Aviation ground rvice facilities. B. Currently approved types of edium and short range turbojet aircraft are as folws: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. hort or medium range turbojet aircraft of types not sted above must secure advance authorization from e Airport Manager. Requests for such authorization ould be made at least 48 hours in advance of the anned aircraft arrival at the Airport. D. Because f limited capabilities, the Airport cannot accomodate erations of turbojet aircraft for proficiency or prace take-off or landings.

FLORIDA

PS TO HAITI, PUERTO RICO AND DOMINICAN EPUBLIC SPECIAL NOTICE: Non-commercial acft e prohibited from landing in HAITI, unless specific prior authorization is obtained. Seven working days are normally required to obtain clearance. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergenevy fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

COCOA, CENTRAL BREVARD COUNTY ARPT: Fld will be clsd until aprxly January 1965 for constr.

JACKSONVILLE, IMESON ARPT: Caution, all pilots making ILS apchs to arpt, a bridge lctd aprxly 1¼ mi SW of apch end of rnwy 5 lgtd very brightly at ngt, could give pilots false identification as being a rnwy especially during low ceilings or poor visibility conditions.

PENSACOLA: Intensive student conventional and jet VFR trng activity crossing V22 at 11,000' MSL btn Navy Saufley (NUN) VOR and Navy Whiting VOR 135 radial; and within a radius of 3 nmi Whiting NAAS and Saufley NAAS at and below 2500' MSL. Suggested alter course or altitude to avoid these areas. Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

PENSACOLA MUN ARPT: ADF 2, Amdt 3 is revised as follows: Transition NUN VOR to PNS rbn 1600ft. Procedure turn altitude 1600 ft.

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should cte Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft revg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13-31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1960'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R-2915A, R-2915B and R-2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

GEORGIA

CARROLLTON MUN ARPT: Clsd for resurfacing.

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

STATESBORO MUN ARPT: 1000' S end rnwy 18-36 to intsxn of rnwy 13-31 clsd for unknown duration. Remaining rnwy rought usable length 4200' both directions.

ILLINOIS

CHICAGO, MIDWAY ARPT TWR: Efctv Nov 24 radar initiated service to provide tfc advisories to all acft

operg VFR in Chicago Metro Area that desire this service. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000' MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft lndg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.

PEORIA, GREATER PEORIA ARPT: 5' unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.

INDIANA

SCOTLAND: Controlled explosive demolition is conducted week days 0730–1600, at the U.S. Naval Ammunition Depot, Crane, Ind in a controlled firing area one nmi in diameter lctd 160°/8.7 nmi from Scotland VORTAC from the surface to 2200' MSL.

IOWA

CEDAR RAPIDS MUN ARPT: ADF Proc. No. 1, Orig.: ILS–8, Amdt. 3; VOR Proc. No. 1, Amdt. 6, VOR Proc. No. 2, Amdt. 1 and VOR/DME Proc. No. 1, Amdt. 2 is revised as follows, effective July 1, 1964: Add note "Radar vectoring to final approach course by Chicago Center Radar is authorized."

CHARITON ARPK: Clsd for rnwy paving.

CLINTON MUN ARPT: VOR Proc. No. 1, Amdt. 4 is revised as follows, effective July 1, 1964: Add note "Radar vectoring to final approach course by Chicago Center Radar is authorized."

DAVENPORT ARPT: ADF 1 Amdt. 1 efctv 7 Dec 63 revised as follows: Minimum altitude over facility on final approach course 1500 vice 1400 feet.

DAVENPORT MUN ARPT: ADF No. 1, Amdt 1 and Moline, Ill—Quad City Arpt., ADF No. 1, Amdt 10, ILS–9, Amdt 10 and ILS–27, Amdt 5 are revised efctv immediately: Radar Vector to final apch course by Chicago Center Radar authorized.

KANSAS

SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efctv 30 September 1961, is revised as follows effective immediately: Add Note: Radar vectoring to final approach course authorized.

TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Amdt. 16: ILS–13, Amdt 17 and ILS–13, Amdt 7 are amended as follows, effective immediately: C–dn, two eng or less, 65 kt or less, 600–1 vice 500–1. Unlighted smoke stack 1137' msl within circling criteria.

MARYLAND

ANNAPOLIS SPECIAL NOTICE. Electromagnetic radiation vcnty parabolic antenna at Greenburry Point lat 38°58'22", long 76°27'00", about 2.3 nmi ESE. immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel, acft, pwr service, insts. Pilots of helicopters warned against hovering in vcnty and should avoid apch closer than ½ mi.

CHESTERTOWN, GILL ARPT: Clsd to transients Dec 15, 1964–March 31, 1965.

COLLEGE PARK ARPT: Open. The abandoned arpt depicted on the Washington Sectional Chart is Ercc Fld

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avl through the nearest Massachusetts State Police Hdqtrs

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and border Island lctns. Signs funtion with associated flashing during periods where wea is forecast or actually go below VFR minimums. Sign and lgt sys operates Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket hrs daily.

BOSTON ARTCC: Nov 24, extended radar enroute ctl service will apply to acft departing from destns to Concord Mun, Hartness Mun, Laconia Mun Airport while enroute via portions of Blue 63, V–141, V–141 V–93, V–39, V–151, V–151W, V–1697 and V–1695. Normal clearance limit is arpt of destination. Primary freq for this service is 127.3, or 357.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN sites at Saratoga Springs, N.Y. peripheral site.

BOSTON, LOGAN ARPT: All standard instrument aj procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorize from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. OBSTION: 505' bldg 1.7 mi W of arpt.

MICHIGAN

ALPENA SPECIAL NOTICE: Control zone and contr area extension effective from 1000 to 1400 local t Wednesday through Sunday.

BATTLE CREEK—KELLOGG FLD: Proc. No. ILS 2 Amdt 1 is revised as follows, effective immedia Basic S-dn minimums Runway 22, 200-½.

BENTON HARBOR: Efctv Jan. 1, 1965, control zo and control area extension 0730 to 2230 local time

BENTON HARBOR, ROSS FLD: ADF 1, Orig., effec immediately Straight-In and Circling 700 ft vice ft for ADF only equipped aircraft. Milburg Int SF VOR R–356 vice R–005.

DETROIT METROPOLITAN WAYNE CO ARPT: Pr cedure ILS–21–R, Amdt. 1, effective 1 Feb. 1964 E fective immediately, S-dn Rnwy 21R, 200–½ vice 30

DRUMMOND ISLAND ARPT: Daily blasting in lim stone quarry between 1200–1800 EST within 1 radius of lat 45°58'00"N long 83°47'30"W aprx 3 mi SSW, fragments reaching altitude 1500 AGL 2 MSL.

GAYLORD RDO: State owned and operd VOR opers hrs daily, VFR use only. Class: L–BVOR Freq mc. Ident: GLR. Lctd lat 45°00'48", long 84°41' Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Mon category (1)

SAGINAW MUN ARPT: Clsd to all ngt operns UFN.

AULT STE. MARIE: Daily blasting excp Sun btn hrs of 1300-1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200', AGL (3000' MSL.)

AMBAUGH CITY ARPT: Clsd until further notice.

MINNESOTA

MIDJI: Efctv Jan 1, 1965, control zone and control rea extension 0730 to 2000 local time.

MINARD: Efctv Jan 1, 1965, control zone and control rea extension 0800 to 1900 local time.

ELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line rom Aurora, Minn., to a point 4 mi SE of Babbitt. 'te Hibbing FSS for blasting schedule.

NNEAPOLIS ARTCC: Radar service in U.S. controlled airspace along J500 btn Gore Bay, Ont and Lakehead, Ont and along J101 from Sault Ste Marie, Mich o 20 nmi north of Greenbay Wisc, now provided from linneapolis ARTCC. Due to equipment characteristics 'eater unsable to vector acft to avoid adverse conditions along J90 and J16 btn 25W FSD and 33SE SPR; long J32 btn 70NE ABR and 32E DPR; and along J70 tn 50E ABR and 80NW ABR.

PAUL-DOWNTOWN (HOLMAN FLD): Efctv 0600 o 2200 control zone is designated within a 3 mi radius entered at lat 44°56'10", long 98°03'40".

ORTHINGTON: Efctv Jan 1, 1965, control zone and ontrol area extension 0700 to 1830 local time.

MISSOURI

ECIAL NOTICE: Extreme caution necessary on V-13 nity Grandview, Richards-Gebaur Arpt., due concenration of tfc alts. Where possible, suggest all users erate via V-13E btn Kansas City and Butler Arpts.

LEONARD WOOD—FORNEY AAF: Radar Proc. o. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: AR and ASR: C-dn minimums 500-1, 600-1½, 600-½.

T LEONARD WOOD, FORNEY AAF: Fld clsd to vil acft except on business and on flgt plan. Two-ay rdo and prior clearance from twr rgrd before try into R-4501. Enter R-4501 on SE heading of 0° from Waynesville, Mo.; SSW heading 210° from chy, Mo. (VOR); WNW heading of 290° from aples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2-20 sd. Txwy from S end of mil apron to rnwy (1500') able for takeoff and lndg in emgcy or on req.

SAS CITY, MID CONTINENT ARPT: Control zone signation Control twr service and ADF Procedure o. 1, ILS rnwy 18, ILS rnwy 36 with no restriction alternate minimums, is extended to include the riod 0500 Z to 1300 Z daily, beginning 0500 Z Dec , 1964 until 1300 Z Jan 10, 1965.

MONTANA

AT FALLS ARTCC (NOTIP). Efctv July 23, en ute radar service excp radar weather advisory service ll be available throughout the enlarged Great Falls RTCC/NOTIP area. Due to equipment characteristics dar weather advisory service cannot be provided in is area nor on J107 from the centers eastern boundy to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC NOTIP. VFR service in the Kalispell, Mont. area will continue to be available through use of the ARTCC freq 120.4 mc. VFR flights in the Kalispell area call 'Great Falls Center—VFR Service'. Further information is contained in a letter to Airmen that has been distributed in the area.

NEBRASKA

OMAHA, EPPLEY ARPT: PROC. NO. ILS-32R (Now ILS-32), Amdt. 5, efctv 21 Sept. 63 is revised as follows: S-n-32, 500-1 with operative SALS.

OMAHA-EPPLEY AIRFIELD: Proc. No. ILS-14, Amdt. 13; ILS-32, Amdt 5; and ADF Proc. No. 1, Amdt 13 are revised as follows, effective immediately: Circling minimums two eng. or less, 65 knots or less, 700 ft. vice 600 ft.

OMAHA, EPPLEY AIRFIELD: ILS-14L, Amdt. 13, 9/21/64. Alternate Day-Night Minimums 700-2 all categories. Runway 14L is now Runway 14.

OMAHA RDO: Voice comms with Omaha, Nebr FSS unusable below 3000' on V-6-8S btn 36 and 55 nmi E of VORTAC' excp tsmtg 116.3 mc.

SIDNEY ARPT: Sioux Ordnance Depot apprxly 8 nmi NNW advises that ammunition and ammunition components are destroyed by detonation 1400-2300Z Mon-Fri; in addition, large items destroyed by burning are initiated at 2300Z and considered a hazard to low flying acft until apprxly 0400Z.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio for information concerning release time of Restricted Area R-4803. At other than release times flight is restricted at 8000' MSL and below along airways in N portion and at 18,000' MSL and below S of airways in R-4803. Geographical coordinates of R-4803 are from 3 nmi radius circle centered at lat 39°20', long 118°52' and within 3 nmi W and 2 nmi E of a line extending 349.5° T from the circles center 15 nmi NNW.

LAS VEGAS: HI-density jet tfc: Pilots on other than IFR clearance should either avoid or use extreme caution when traversing the following areas within which Nellis AFB hi-density jet tfc is operg. Hours of Operation: 0800-1800 local time, Monday thru Saturday, continuous daily at 9000' MSL and below within a 5 mi radius of Nellis AFB. Surface to 23,000' MSL within flg boundaries: 36°42', 115°18'; 36°42', 114°32'; 36°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°27'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°15'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°45'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 115°42'; 36° 35', 115°37'45"; 36°26', 115°23'25"; 36°26', 115°18'; to point of beginning. Btn 5500' MSL and 23,000' MSL within the flg boundaries: 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 115°42'; 36°35', 115°37'45"; 36°26', 115°23'25"; 36°23'25", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; west to closest 5000' elev line at 36°13', 115°22'; SW along 5000' elevation line to 36°08'50", 115°30'; to point of beginning. Surface to 23,000' MSL within flg boundaries: 36°42', 115°18'; 36°26', 115°23'25"; 36°23'25", 115°23'25", SE along US 95 to 36°14'20", 115°14"; 36°13', 115°07'30"; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15'30",

115°07′45″; 36°31′, 114°56′40″; 36°34′30″; 114°41′-30″; 36°42′, 114°32′; to point of beginning. Btn 8000′ MSL and 9000′ MSL within flg boundaries: 36°31′, 114°56′40″; 36°42′, 114°12′; 36°32′, 114°12′; 36°23′-30″, 114°48′20″; to point of beginning. Btn 10,000′ MSL and 23,000′ MSL within flg boundaries: 36°14′-20″, 115°14′; west to closest 5000′ elevation line at 36°13′, 115°22′, SW along the 5000′ elevation line to 36°08′50″, 115°30′; 36°10′, 115°10′; to point of beginning. Surface to 9C00′ MSL within flg boundaries: 36°15′30″, 115°07′45″; 36°31′, 114°56′40″; 36°23′30″, 114°48′20″; 36°12′, 114°58′; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000′ MSL Frequent violations reported of Restricted Area R–4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000′.

NEW JERSEY

ATLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

DOVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000′ MSL. Prior entering area ctc Teterboro Rdo.

NEW MEXICO

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR wea conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57′30″, long 106°33′45″. Soil clods may be thrown to a radius of 1000′.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

NEW YORK

NEW YORK CITY: 1520′ rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts operg on rotating basis dusk to midngt. From midngt to dusk break bcn in fixed position with light beamed directly S.

NEW YORK JOHN F. KENNEDY INTL TWR: Effective August 1, 1964, Kennedy Tower will begin an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling relative to frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a non-control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runways currently in use shall be issued at this time. Time and altimeter setting will be isued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall consist of only that which will concern the departure aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs, when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control that they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay, and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK, LA GUARDIA ARPT AREA: Tankers with mast exceeding 100′ occasionally traverse Rikers Island ship channel creating obstruction to acft operg on rnwys 13–31 and 4–22. Ctl twr issuing advisory as to presence of tankers when info avbl.

NEW YORK, LA GUARDIA ARPT: FEE Clsd to all propelled and motorless acft and acft over 105,000 lbs unless prior permission of Arpt Mgr.

ROMULUS, SENECA ARMY DEPOT: Controlled fire for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circle

area with a 1350' radius centered at lat 42°46'59"N and long 76°53'06"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

NORTH CAROLINA

IZABETH CITY MUN ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth ity Mun arpt contact Elizabeth City Coast Guard twr n 126.2 mc for tfc information. Acft without radio nter 500' pattern from the west.

YETTEVILLE, POPE AFB: Extensive operns to ,000' MSL 1200-2200Z Mon thru Fri. Pilots of all ıft are advised that in an area from Lillington, N.C., orth along arwy V3E 6 NM to Chalybeate, N.C., ounterclockwise west 12 NM to Broadway, N.C., thence SW 38 NM to Marston, N.C., thence E 26 NM to Rockish, N.C., thence NE 27 NM back to Lillington; Intensive training will be conducted W of V3E using eavy four engine transport and prop jet (C-124 and -130) acft, consisting of single, formation, and multile formation flights. These acft oper 2,000' and below nder VFR conditions, conducting low level (300' AGL o 2,000' MSL) runs in the maneuvering area described bove, for troop and cargo drops into R-5311. Similar perations are conducted in the vicinity of Mackall AF with drops at Mackall AAF.

OHIO

IENS RDO: About Dec 1, nonfederal Rbn will be omsnd, freq 206 kc ident: UOA. Lctd lat 39°20'11", ng 81°58'25". 272 4.4 nmi from rnwy 27 Ohio Uniersity Arpt. Class: MHW. Facility owned and oprated by Ohio University.

CINNATI: Moored mrkd balloon will be flown day r ngt up to an alt 1500' MSL. Site of operns 7½ mi E Greater Cincinnati Arpt and 6½ mi W Lunken rpt. Balloon will be tethered aprxly ½ mi W of incinnati Union Trml Bldg.

MILTON RDO: About Dec 1, Non-federal H fac will e comsnd. Ident: HAO, freq 200 kc. Class: MHW. ctd lat 39°22'18", long 84°34'03". Variation 0°.

E MILTON, KOASIS RESORT ARPT: Clsd until rther notice.

ENNA ARSENAL (APCO): Ctld firing for demoion purposes, when wea permits, during regular orking hrs, Mon-Fri within the following area: ounded on S by lat 41°11'30", on N by lat 41°12'20"; long 81°04'22"; W long 81°06'14". Demolition activies in this area will go no higher than 5000' MSL d only when ceiling of 10,000' or better and vsby 10 i or more. Notams regarding activities conducted ill be filed with FSS Akron Mun Arpt (telephone Radium 4-1246).

EDO MUN ARPT: Clsd Suns to all itinerant acft n 1400-2300 due to drag races all rnwys UFN.

ESVILLE RDO: About Dec 15, DME will be shut own for conversion to TACAN. About Dec 26, VORAC will be comsnd. TACAN channel 51.

OKLAHOMA

D: Efctv Nov 15, 1964 ctl zone times will be 0700-00 local time Mon thru Thurs 0700-2200 local time ri. from 0800-1600 local time Sat, and 1200-1800 local time Suns. Control zone not designated on holidays.

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet tfc is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500' MSL and maintain 3500' MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500' MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500' MSL. To and from the S maintain 2300' MSL E of an extended N-S line to a point abeam the town of Bison. To and from the N and E maintain 4000' MSL or below within 20 mi of Woodring Arpt. Low level jet navigation missions now being performed at 1000' to 1500' AGL at 300 knots along the following routes: Vance AFB; 8 nmi N of Fairview; Ft Supply; Darrouzett; Briscoe; Strong City; Bridgeport; Enid, Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid, Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200-2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

OKLAHOMA CITY, EXPRESSWAY JUNCTION ARPT: 1002' (2749' MSL) lgtd TV twr being constrd 2.5 nmi NW (317° T) at lat 35°34'06", long 97°29'19".

WAGONER AIRSTRIP: 1949' (2549' MSL) lgtd TV twr constrd 14 nmi W (273° T) at lat 35°58'09", long 95°36'55".

OREGON

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000' in area bounded by 46°12'N, 124°10' W thence 46°12'N, 123°59'20"W thence along a line one half mi E of shoreline to 46°02'N, 123°55'30"W thence 46°02'N, 124°10'W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.

The follow'n garpts are closed for an unknown duration, due to winter: Beaver Marsh; Bend, Stearns; Crescent Lake Flight Strip; Idanaha, Stanfiam; Lapine.

PENNSYLVANIA

BRISTOL, 3-M AIRPORT: VOR Proc. No. 1, Orig., efctv 5 Sept 1964. During the period of the West Chester VORTAC shutdown, change transition from Ardmore VHF Int to read from "Temporary Ardmore VHF Int to PNE VOR".

PITTSBURGH, GREATER PITTSBURGH ARPT: Radar Proc. No. 1, Amdt. 6, effective 22 February 1964. RVR note for landing is amended to read "Descent below 1368 feet" vice 1403 feet. Automatic cancellation of this NOTAM will be the effective date of the revised procedure appearing in the Federal Register.

PITTSBURGH GREATER PITTSBURGH ARPT: Due rnwy reconstr until aprxly Jan 65 rnwy 10-R-28L clsd and 28L VASI and apch lgts inop.

PITTSBURGH, GREATER PITTSBURGH ARPT: About Dec 20, Creek H facil will be comsnd. Lctd on rnwy 10L extended cntrline 6.9 nmi from apch end rnwy. Lat 40°30′21″, long 80°25′17″. Elev: 1116′ MSL. Mag variation 4°W. Freq: 219 kc. Ident: CRK. Class: MHW.

READING, GEN. SPAATZ AIRPORT: Proc. No. ILS–36, Amdt. 8, efctv 13 Oct 62. During the period of the West Chester VORTAC shutdown, change transition from Honeybrook Int to LOM (Final) to read from "Int. RDG Localizer Front course and the LRP 088 radial to LOM (Final)". ADF Proc. No. 1, Amdt. 6, efctv 22 Sept 62. During the period of the West Chester VORTAC shutdown, delete transition from "Honeybrook Int. to LOM (Final)."

SOUTH CAROLINA

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

SOUTH DAKOTA

MOBRIDGE RDO: State owned and operd VOR operg 0700–1900, VFR use only. Class: L–VOR. Freq: 108.6, receivers 122.1. Ident: MBG. Lctd lat 45°33′07″, long 100°21′56″.

TEXAS

AMARILLO: Controlled Firing Area lctd 10 mi NE of end of NE/SW rnwy of Amarillo AFB/Mun: Lat 35°-21′09″, long 101°37′04″ E to 35°21′12″, 101°32′26″, S to 35°17′56″, 101°32′26″ W to 35°17′56″, 101°37′04″, N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552′.

BEAUMONT, JEFFERSON CO. MUN ARPT: ADF 1, Amdt. 5, 16 May 64, Mitchell Int. to LOM (Final) 1400 vice 1000.

BIG SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000′ MSL when traversing area encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V–66, including area W along V–16S to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V–66, to N–S line drawn through town of Loraine, Tex. Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 60 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

BIG SPRING HAMILTON FLD: Caution, all alt 3,600′ MSL and above intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600′ MSL.

BIG SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100′ MSL and above, intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600′ MSL.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13–31 clsd ufn.

HONDO: Randolph AFB jet T-38 and T–33 acft will conduct acrobatic and transition flights within 15 mi radius of Hondo. Intensive touch and go landings Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. The acft practicing touch and go lndgs cntld by RSU on 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the east and fly N to S or S to N over bldgs next to ramp at 600′ above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit at 300′. Jets will orbit at 300′ MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barriers. Barriers will be lowered when trng is not in progress.

HOUSTON INTL ARPT: Inbnd flts ctc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° ctc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038–188° ctc HOU apch ctl on 118.1 or 307.1.

JOHNSON CITY ARPT: Microwave twr under cons 1400′ WSW 105′ AGL will be obstn lgtd and painted.

JOHNSON CITY ARPT TWR: Mobile twr uses freqs 236.6, 243.0, 126.2, 121.5 caretake status exists as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN (FORT HOOD), ROBERT GRAY AAF: VOR Procedure No. 1. Original, efctv 15 Feb 1962 and ADF Procedure No. 1, Original, efctv 28 March 1963 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controller airspace. This NOTA cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

LAREDO: Instv VFR jet trng conducted in Laredo control zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000′ MSL in this area. It this is not feasible ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; ctc on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

MIDLAND AIR TRML: Webb AFB T–38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS. Webb acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000′ MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

SAN ANTONIO, CAMP BULLIS: Controlled Firng Area as follows: A circular area 1¼ nmi in radius centered at lat 29°42′00″, long 98°33′50″. Altitude: surface to 3000′ MSL (1500′ AGL). Time and use: 0830 to 1730 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000′ MSL. Hvy conventional and jet instrument acft letdown and transition trng in SE quadrant btn V198 and V163W and V163W 60 nmi radius of Randolph Mon-Fri. VFR

jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Aux Arpt. Hvy IFR VFR penetrations and apcrs will be made from the La Vernia VOR to Randolph AFB. Should necessity dictate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS 31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

UTAH

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

SALT LAKE CITY MUNICIPAL AIRPORT NO. 1: ADF Proc. No. 1, Orig., efctv 3 Oct 64 is revised as follows: Altitude over LMM, 4862' vice 4626'. ADF Proc. No. 2, Orig., efctv 30 Mar 63 is cancelled, efctv 3 Oct 64.

SALT LAKE CITY MUN ARPT No. 1: ADF Proc No. 2 Orig. revised as follows, effective immediately: Rnwy 34L/R, straight-in minimums 600–1 all categories vice 400–1.

SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N, 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

753-036 O - 64 - III-9

VIRGINA

DAHLGREN: Restricted Area R 6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR SS, Mon-Fri.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.

WISCONSIN

JANESVILLE: Efctv Jan. 1, 1965, control zone Sun thru Fri 0700 to 2330 and Sat from 0700 to 2000 local time.

WASHINGTON

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extendin gfor aprxly 2000' due to construction on fld UFN.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195 300° at 1000' MSL beyond 2 mi.

SEATTLE: Hi alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

WYOMING

BIG PINEY RDO: VOR will be shut down for rehabilitation. Not to be used for navigational purposes prior to restoration. Disregard spurious signals during this period. No substitute route structure provided.

Repository

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION III A

NOTICES TO AIRMEN

24 DECEMBER 1964

Section III–A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the AIM. It contains selected notices from the daily NOTAM Summary, Airman Advisories, new or revised Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

NOTE: Data printed entirely in bold face type are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is continuously cited until the condition is no longer in effect.

NOTE: Data is arranged in alphabetical order by State (and within the State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

BAYOU LA BATRE, FAY VIEW ARPT: Paved 3000' drag strip 75'S and parallel to turf rnwy. P-line each side of drag strip and wire across strip 75' from E end. N/S turf rnwy under constr, covered with stumps not to be used for acft operns.

BIRMINGHAM MUN ARPT: 833.5' (1810' MSL) lgtd TV twr constrd 5 nmi SSW (207°T) at lat 33°29'25.5" long 86°47'48".

CATHERINE, MARTIN FLD: Clsd until spring.

DOTHAN MUN ARPT: Rnwy 5–23 lgts permly discontinued.

FT RUCKER: Extsv IFR and VFR student trng conducted in area bounded by V–115 W, V–241 S, V–70 N and V–241 E. Normal hrs of operns 0600–2400 Mon-Fri from surface to 10,000'.

MOBILE, BROOKLEY AFB: Caution, effective immediately and until further notice all aircraft are warned of extensive high performance jet (F–105) traffic in the following area during dalgt hrs only: From the surface to 5000' MSL over the Mississippi Sound from a point 30°15'N, 88°04'W to a point 30°15'N, 88°50'W. Concerned aircraft will be flying a race track pattern between the above listed coordinates for the purpose of contour map/terrain avoidance radar calibration. Therefore, the pilots in the F–105 aircraft will be limited to the amount of visual surveillance they can give to air to air separation under VFR conditions.

SELMA CRAIG AFB: Extsv jet student trng conducted during dalgt hrs and occasional ngts Mon-Fri from surface to 6000' MSL. Craig ctl zone saturated dalgt hrs to 6000' MSL during student trng. VFR acft should contact Craig twr on 236.6 or 119.5 mc for tfc advisories. Craig Twr is avbl for lndg advisories for acft lndg Selfield. Clsd excp for ofl bus. clsd to transit aero club acft.

TANNON MUN ARPT: New. Lctd 4 mi S at lat 33°50'30", long. 88°07'00". Elev: 464. One rnwy 16–34. 3200 x 75' asphalt. Rnwy lgts operate dusk-dawn. FSS. Tuscaloosa.

ARIZONA

BOUSE ARPT: Clsd until aprxly March 1965.

CAREFREE ARPT: Ben inop UFN.

DOUGLAS, PUERTO CIELO ARPT: Closed to general public.

DUNCAN, LAZY B RANCH ARPT: Open to the public. Lctd 11 mi S at lat 32 33', long. 109 05'. Elev: 4135'. Two dirt rnwys 13–31 2200 x 35' and 7–25 1700 x 32'. Unattended.

FT HUACHUCA: See Yuma Special Notice.

GILA BEND: See Yuma Special Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

GRAY MOUNTAIN ARPT: Abandoned.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

MESA, FALCON FLD. Until Feb 20, 1965, small rocket test firing within one mile radius of a point 3 sml N maximum height 2,500 AGL. One day per week 1100 MST to 1500 MST. Contact Phoenix FSS for details.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hidensity jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the venty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Re-

quest all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3–21 for unknown duration. Usable length lndg and tkof rnwy 12–30 is 2900'.

TUCSON, RYAN FLD: About Nov 16, all rnwys will be clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000' MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307. Efctv Jan. 15, 1964 to Jan 15, 1965 the flwg R–2308 Yuma East restricted area is established: Bndrys: beginning at 33°, 114°17'20"; thence N along State Highway 95 to 33°28', 114°13'; 33°24', 113°39'; 33°13'12", 113°21'36"; 33°07'17", 113°24'10"; 33°02', 113°33'50"; 33°02', 113°56'30"; 33°00', 114°11'; to point of beginning. Designated Altitudes: 1500' above the surface to 20,000' MSL. Time of Designation: Continuous, Jan. 15, 1964 to Jan. 15, 1965. Controlling Agency: Federal Aviation Agency, Los Angeles ARTC Center. Using Agency: Commanding Officer, Yuma Proving Ground, Yuma Ariz.

ARKANSAS

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000'. Rnwy 22 and 31 not avbl for air carrier acft ngt lndgs due to unlgtd obstns apch end.

CALIFORNIA

AMBOY, ROY ARPT: Closed to the general public.

CORNING MUN ARPT: Clsd indef.

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500' MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37'42", 121°48'47"; clockwise along the arc of 3-mi radius circle centered at 36°35'30", 121°50'30"; to 36°34'45", 121°47'24"; to 36°34'45", 121°48'35"; 36°35'45", 121°49'45"; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LONG BEACH RDO: TACAN portion of VORTAC unusable for apchs to Los Alamitos NAS acct crs roughness.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V58 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: Beginning on or about Nov 25, a 90-day test will be conducted by the LAX FSS to evaluate the effectiveness of new concept in Transcribed Weather Broadcast script. The new concept will differ from the present procedures in that meteorological and Notice to Airmen data will be broadcast as applied to six commonly-travelled routes out of the Los Angeles Metropolitan Area. Enroute weather reports will follow the weather forecast for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes will be spoken. Dissemination will continue to be over the Los Angeles "Homer" on 332 kc; by telephone Spring 6–1640 or Spring 6-1641 and will additionally be fed into a special "listening-only" interphone circuit paralleling the present "fastline" circuit serving subscribers at Van Nuys Arpt; Lockheed Air Terminal in Burbank; San Fernando Arpt; Whiteman Arpk; in Pacoima and Rancho Conejo Arpt near Thousand Oaks. For the duration of the test period Weather Bureau pilot automatic telephone weather answering PATWAS will be discontinued, the two telephone numbers listed above are presently in use in the PATWAS program. As soon as practicable the other PATWAS telephone numbers Poplar 2–4111 and Davis 3–4626 will be connected to the Transcribed Weather Broadcast equipment. Until this is accomplished calls on these lines will be referred to the two Spring numbers.

MODESTO CITY-COUNTY ARPT: All pilots must ctc Stockton Apch Ctl prior to conducting IFR flight operns in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

POINT ARGUELLO: Civil acft desiring to transit W–532 call Navy Point Arguello on 122.5 mcs (guard 24 hrs) and listen for reply on 124.4 mcs.

RIVERSIDE MUN ARPT: Efctv Dec 10, 1964 Riverside control zone will be efctv from 0500 to 2130 local time. All pilots must contact March Apch Ctl prior conducting IFR flight operns in the Riverside control zone.

SANTA BARBARA RDO: Width of Naples FM at intercept alt on ILS lclzr crs 3200' or slightly wider than standard ILS OM. During VOR outages or shutdowns for maintenance, flt checks reveal numerous usable signals being emited by acft rdo shops in Los Angeles Area on Santa Barbara VOR freq 114.9 mc are to be disregarded.

COLORADO

BROOMFIELD, JEFFERSON CO ARPT: First 3000' of rnwy 11 plus associated txwy clsd for resurfacing. us-

able length both directions 3000'. Ctc unicom for instructions.

DENVER, LOWRY AFB: Ctld firing (demolition) area in use daily except Sat, Sun and holidays 1430-2330Z within a radius of 2500' of point lctd 104°41'11"W, 39°36'-30"N up to 1000' above surface.

EAGLE: Ctld firing for use of Camp Hale. Area is 5 nmi radius from point lat 39°27', long 106°19'20", max ordinate of firing 15,000' MSL. Time of use: continuous 24 hrs daily. Controlling agency: Commanding General, Fort Carson.

PUEBLO: Controlled Firing (demolition) area for use of the Pueblo Ordnance Depot established within the following described area: bounded on N by lat 38°22'00"; E, long 104°21'22"; S, lat 38°18'00"; W, long 104°22'-50". Hrs of usage: 0900–1600 MST, Mon-Fri. Max alt 5000' above the surface.

CONNECTICUT

WATERBURY ARPT: Clsd.

DELAWARE

MIDDLETOWN, SUMMIT AIR PARK: E/W rnwy clsd until aprxly April 1965.

WILMINGTON, GREATER WILMINGTON AIRPORT: Proc. No. ILS-1, Amdt. 8, efctv 8 Aug 64. During the period of the West Chester VORTAC shutdown, the following temporary missed approach procedure will be in effect: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished, make climbing left turn to 1600' and return to Wilmington LOM. Hold South, one-minute right turns, inbound crs. 014 degrees.

DISTRICT OF COLUMBIA

WASHINGTON, MT VERNON: Low flying acft requested to avoid immediate vcnty Mt. Vernon estate lctd W bank Potomac River 10 mi S Washington Natl Arpt.

WASHINGTON NATIONAL ARPT: New helipad adj to txwys 1 and 8 comsnd for lndgs and tkofs. Helicopters using this pad will taxi to and from authorized parking areas. Use of grass area bounded by txwy 1 and txwy 11 and the Page refueling pad E of MATS tmnl no longer applicable.

WASHINGTON NATL ARPT: The Weather Bureau and the Federal Aviation Agency will jointly institute a runway visibility observation program for runways 18, 36 and 15. Whenever the runway visibility system serving runway 36 is inoperative with visibility one and one half mile or less or runways 18 and 15 are in use for landing aircraft and the visibility is at or below one and one half mile an observer will be stationed at the approach end of the landing runway and will report visibility values manually in one quarter mile increments. These values shall be used in conjunction with reported ceiling and will be mandatory for the runway being served and should not be construed as runway visual range (RVR) values.

WASHINGTON NATL ARPT: JET POLICY FOR WASHINGTON NATIONAL AIRPORT—Due to limited ground handling facilities at the Washington National Airport, flight operations of only those turbojet aircraft that meet the following criteria can be accomodated: A. Except under emergency conditions, only approved types of turbojet aircraft of short or medium range (1) are engaged in corporate, private charter or rental type operations, and (2) solely intend to utilize the Airport's General Aviation ground service facilities. B. Currently approved types of medium and short range turbojet aircraft are as follows: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. Short or medium range turbojet aircraft of types not listed above must secure advance authorization from the Airport Manager. Requests for such authorization should be made at least 48 hours in advance of the planned aircraft arrival at the Airport. D. Because of limited capabilities, the Airport cannot accomodate operations of turbojet aircraft for proficiency or practice take-off or landings.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC SPECIAL NOTICE: Non-commercial acft are prohibited from landing in HAITI, unless specific prior authorization is obtained. Seven working days are normally required to obtain clearance. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergency fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

COCOA, CENTRAL BREVARD COUNTY ARPT: Fld will be clsd until aprxly January 1965 for constr.

DESTIN ARPK: Clsd permly.

JACKSONVILLE, IMESON ARPT: Caution, all pilots making ILS apchs to arpt, a bridge lctd aprxly 1¼ mi SW of apch end of rnwy 5 lgtd very brightly at ngt, could give pilots false identification as being a rnwy especially during low ceilings or poor visibility conditions.

PENSACOLA: Intensive student conventional and jet VFR trng activity crossing V22 at 11,000' MSL btn Navy Saufley (NUN) VOR and Navy Whiting VOR 135 radial; and within a radius of 3 nmi Whiting NAAS and Saufley NAAS at and below 2500' MSL. Suggested alter course or altitude to avoid these areas. Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft rcvg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13–31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1960'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R-2915A, R-2915B and R-2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

GEORGIA

CARROLLTON MUN ARPT: Clsd for resurfacing.
COCHRAN ARPT: Clsd until aprxly May 1965.

MARIETTA, COBB ARPK: Abandoned.

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

STATESBORO MUN ARPT: 1000' S end rnwy 18–36 to intsxn of rnwy 13–31 clsd for unknown duration. Remaining rnwy rought usable length 4200' both directions.

IDAHO

VICTOR MUN ARPT (BENNETT FLD): Clsd UFN.

ILLINOIS

CHICAGO, MIDWAY ARPT TWR: Efctv Nov 24 radar initiated service to provide tfc advisories to all acft operg VFR in Chicago Metro Area that desire this service. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000' MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft indg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.

PEORIA, GREATER PEORIA ARPT: 5' unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.

INDIANA

SCOTLAND: Controlled explosive demolition is conducted week days 0730–1600, at the U.S. Naval Ammunition Depot, Crane, Ind in a controlled firing area one nmi in diameter ictd 160°/8.7 nmi from Scotland VORTAC from the surface to 2200' MSL.

IOWA

CHARITON ARPK: Clsd for rnwy paving.
NEWTON MUN ARPT: Closed UFN.

WASHINGTON MUN ARPT: Clsd until aprxly June 1, 1965.

KANSAS

HUTCHINSON, HARPERS FLD: Abandoned.

SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efctv 30 September 1961, is revised as follows effective immediately: Add Note: Radar vectoring to final approach course authorized.

TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Amdt. 16: ILS–13. Amdt 17 and ILS–31. Amdt 7 are amended as follows, effective immediately: C–dn, two eng or less. 65 kt or less, 600–1 vice 500–1. Unlighted smoke stack 1137' msl within circling criteria.

KENTUCKY

CAMPBELLSVILLE RDO: Non-federal H facility comsnd. Ident "CTC". Freq 354 kc. Class: MHW. Lctd at lat 37°21'15", long. 85°18'45". Hrs of opern 0830–1900 lcl time daily.

LOUISIANA

EUNICE ARPT: New arpt lctd 2 mi S at lat 30°28'00", long 92°25'30". Elev: 42'. One rnwy 16–34 3000 x 75' asphalt.

NEW ORLEANS INTL ARPT (MOISANT FLD): Twr partial vsby exists on rnwy 1–19 from twr defective thermopane glass.

MAINE

DOVER, FOXCROFT SEAPLANE BASE: Abandoned.

HOULTON INTL ARPT: Clsd for winter months.

MARYLAND

ANNAPOLIS SPECIAL NOTICE: Electromagnetic radiation vcnty parabolic antenna at Greenburry Point lat 38°58'22", long 76°27'00", about 2.3 nmi ESE, immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel, acft, pwr service, insts. Pilots of helicopters warned against hovering in vcnty and should avoid apchg closer than ½ mi.

CHESTERTOWN, GILL ARPT: Clsd to transients Dec 15, 1964–March 31, 1965.

COLLEGE PARK ARPT: Open. The abandoned arpt depicted on the Washington Sectional Chart is Erco Fld.

STEVENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Signs funtion with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BOSTON ARTCC: Nov 24, extended radar enroute tfc ctl service will apply to acft departing from destined to Concord Mun, Hartness Mun, Laconia Mun Airports while enroute via portions of Blue 63, V–141, V–141E, V–93, V–39, V–151, V–151W, V–1697 and V–1695. Normal clearance limit is arpt of destination. Primary freq for this service is 127.3, or 354.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd at Saratoga Springs, N.Y. peripheral site.

BOSTON, LOGAN ARPT: All standard instrument apch procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorized from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. CAUTION: 505' bldg 1.7 mi W of arpt.

BRAINTREE MUN ARPT: Clsd permly.

MICHIGAN

MICHIGAN: The following arpts are clsd for unknown duration due to winter months. Cheboygan, Marx Fld.: Munising, Hanley Fld.: Houghton, Sands Arpt.

ALPENA SPECIAL NOTICE: Control zone and transition area effective from 1000 to 1400 hrs lcl time Wednesday—Sunday until January 15, 1965, thereafter from 0800–1600 hrs, local time daily.

BATTLE CREEK—KELLOGG FLD: Proc. No. ILS 22, Amdt 1 is revised as follows, effective immediately: Basic S-dn minimums Runway 22, 200-½.

BENTON HARBOR: Efctv Jan. 1, 1965, control zone and control area extension 0730 to 2230 local time.

BOYNE CITY MUN ARPT: NW-SE rnwy clsd UFN.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58'00"N long 83°47'30"W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L-BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00'48", long 84 41'30", Gaylor Arpt. Revg freqs 122.1, 126.7 mc. Monitoring category (1)

GESSEL ARPT: No snow removal during winter months.

GILLMAN ARPT: Open ski equipped acft only winter months.

GLEWISTON ARPT: Open ski equipped acft only winter months.

GLUZERNE, LOST CREEK SKY RANCH ARPT: Open to ski equipped acft for the winter months.

MACKINAC ISLAND ARPT: No snow removal during winter months.

MENOMINEE RDO: Control zone efctv immediately from 0730–2130 hrs local time daily UFA.

NEWBERRY, LUCE COUNTY ARPT: No snow removal during winter months.

OTTO ARPT: Open to ski equipped acft only for the winter months.

SAGINAW MUN ARPT: Clsd to all ngt operns UFN.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500–1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)

TAMBAUGH CITY ARPT: Clsd until further notice.

TRAVERSE CITY ARPT: Rnwys 13–31 and 5–23 clsd for the winter.

MINNESOTA

ATKIN MUN ARPT: Clsd to wheeled acft during winter months.

BEMIDJI: Efctv Jan 1, 1965, control zone 0730 to 2000 local time, 0700–2000 until Jan. 1.

BRAINARD: Efctv Jan 1, 1965, control zone 0800 to 1900 local time, 0700–1930 until Jan. 1.

BVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt. Ctc Hibbing FSS for blasting schedule.

LONGVILLE MUN ARPT: NW/SE rnwy plowed during winter months.

MINNEAPOLIS ARTCC: Radar service in U.S. controlled airspace along J500 btn Gore Bay, Ont and Lakehead, Ont and along J101 from Sault Ste Marie, Mich to 20 nmi north of Greenbay Wisc, now provided from Minneapolis ARTCC. Due to equipment characteristics Center unable to vector acft to avoid adverse conditions along J90 and J16 btn 25W FSD and 33SE SPR: along J32 btn 70NE ABR and 32E DVR: and along J79 btn 50E ABR and 80NW ABR. Enroute radar service was inaugurated within the Minneapolis advisory area E of a line from a point on the U.S. Canadian bndry 126 nmi NW of the Sault Ste Marie, Mich VOR 47 40', 86 45' thence SW to the Houghton, Mich VOR thence SW to 46 39', 89 45' thence via the Minneapolis apch bndry to the common Minneapolis, Chicago bndry at 45 34', 89 18'. Standard enroute radar separation as appropriate will be provided. Due to equipt characteristics weather advisory service cannot be provided.

ST CLOUD, WHITNEY MEML ARPT: Rnwy 1-19 clsd until aprxly May 1, 1965.

ST PAUL-DOWNTOWN (HOLMAN FLD): Efctv 0600 to 2200 control zone is designated within a 3 mi radius centered at lat 44 56'10", long 93°03'40".

WALKER MUN ARPT: N-S rnwy plowed during winter months.

WORTINGTON: Control zone efctv 0700 to 1830 local time.

MISSISSIPPI

McCOMB, PIKE COUNTY ARPT: Rnwy 7-25 clsd for unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not pull off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V-13 vcnty Grandview, Richards-Gebaur Arpt. due concentration of tfc alts. Where possible, suggest all users operate via V-13E btn Kansas City and Butler Arpts.

BRANSON, GOLF RANCH ARPT: Abandoned.

CANTON, SIGMA PHI EPSILON ARPT: New arpt lctd 5 mi NW at lat 40 09', long. 91 37'. Elev: 653'. One rnwy turf 9–27 1500 x 75'. 80/87 fuel only. Soft when wet.

FT. LEONARD WOOD—FORNEY AAF: Radar Proc. No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C-dn minimums 500–1, 600–1½, 600–1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd to civil acft except on business and on flgt plan. Two-way rdo and prior clearance from twr rqrd before entry into R-4501. Enter R-4501 on SE heading of 140° from Waynesville, Mo.; SSW heading 210° from Vichy, Mo. (VOR); WNW heading of 290° from Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2–20 clsd. Txwy from S end of mil apron to rnwy (1500') usable for takeoff and lndg in emgcy or on req.

KANSAS CITY, MID CONTINENT ARPT: Control zone designation Control twr service and ADF Procedure No. 1, ILS rnwy 18, ILS rnwy 36 with no restriction to alternate minimums, is extended to include the period 0500 Z to 1300 Z daily, beginning 0500 Z Dec 18, 1964 until 1300 Z Jan 10, 1965.

SPRINGFIELD, SOUTHEAST ARPT: New arpt lctd 1 mi SE at lat 37°11', long. 93°14'. Elev: 1370'. One rnwy turf N/S 2640 x 100'.

STOCKTON ARPT: New arpt lctd 2 mi S at lat 37°40', long. 93°48'. Elev: 1035'. One mwy turf 1–19 2600 x 200'.

MONTANA

BROWNING ARPT: Change name to Starr-School Arpt.

CIRCLE, McCONE CO ARPT: Bcn inop UFN.

GREAT FALLS ARTCC (NOTIP). Efctv July 23, en route radar service excp radar weather advisory service will be available throughout the enlarged Great Falls ARTCC/NOTIP area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC/NOTIP. VFR service in the Kalispell, Mont. area will continue to be available through use of the ARTCC freq 120.4 mc. VFR flights in the Kalispell area call 'Great Falls Center—VFR Service'. Further information is contained in a letter to Airmen that has been distributed in the area.

NEBRASKA

GRAND ISLAND MUN ARPT: Information inadvertently omitted from Airport Directory Section IV. Add: Lctd 3.5 nmi NE, elev: 1846. Rnwy M72 Services: S5 Lighting: BL5, 6. Unicom 122.8 mc. Fuel: F5, JP1. FSS: Grand Island on fld.

LINCOLN MUNICIPAL AIRPORT/AFB: Proc. No. ILS-35L, Orig., is revised as follows, effec. immediately: Straight-in minimums of 400–¾ required when glide slope not utilized.

OMAHA, EPPLEY ARPT: PROC. NO. ILS–32R (Now ILS–32), Amdt. 5, efctv 21 Sept. 63 is revised as follows: S–n–32, 500–1 with operative SALS.

OMAHA–EPPLEY AIRFIELD: Proc. No. ILS–14, Amdt. 13; ILS–32, Amdt 5; and ADF Proc. No. 1, Amdt 13 are revised as follows, effective immediately: Circling minimums two eng. or less, 65 knots or less, 700 ft. vice 600 ft.

OMAHA, EPPLEY AIRFIELD: ILS–14L, Amdt. 13, 9/21/64. Alternate Day-Night Minimums 700–2 all categories. Runway 14L is now Runway 14.

OMAHA RDO: Voice comms with Omaha, Nebr FSS unusable below 3600' on V–6–8S btn 36 and 55 nmi E of VORTAC excp tsmtg 116.3 mc.

SIDNEY ARPT: Sioux Ordnance Depot apprxly 8 nmi NNW advises that ammunition and ammunition components are destroyed by detonation 1400–2300Z Mon-Fri; in addition, large items destroyed by burning are initiated at 2300Z and considered a hazard to low flying acft until apprxly 0400Z.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio for information concerning release time of Restricted Area R–4803. At other than release times flight is restricted at 8000' MSL and below along airways in N portion and at 18,000' MSL and below S of airways in R–4803. Geographical coordinates of R–4803 are from 3 nmi radius circle centered at lat 39°20', long 118°52' and within 3 nmi W and 2 nmi E of a line extending 349.5° T from the circles center 15 nmi NNW.

LAS VEGAS: Hi-density jet tfc: Pilots on other than IFR clearance should either avoid or use extreme caution when traversing the following areas within which Nellis AFB hi-density jet tfc is operg. Hours of Operation: 0600–1800 local time, Monday thru Saturday, continuous daily at 9000' MSL and below within a 5 mi radius of Nellis AFB. Surface to 23,000' MSL within fig boundaries: 36°42', 115°18'; 36°42', 114°32'; 36°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°27'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°15'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°45'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 115°42'; 36° 35', 115°37'45"; 36°26', 115°23'25"; 36°26', 115°18'; to point of beginning. Btn 5500' MSL and 23,000' MSL within the fig boundaries: 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 115°42'; 36°35', 115°37'45"; 36°26', 115°23'25"; 36°23'25", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; west to closest 5000' elev line at 36°13', 115°22'; SW along 5000' elevation line to 36°08'50", 115°30'; to point of beginning. Surface to 23,000' MSL within fig boundaries: 36°42', 115°18'; 36°26', 115°23'25"; 36°23'25", 115°23'25", SE along US 95 to 36°14'20", 115°14"; 36°13', 115°07'30"; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°34'30"; 114°41'30"; 36°42', 114°32'; to point of beginning. Btn 8000' MSL and 9000' MSL within fig boundaries: 36°31', 114°56'40"; 36°42', 114°12'; 36°32', 114°12'; 36°23'30", 114°48'20"; to point of beginning. Btn 10,000' MSL and 23,000' MSL within fig boundaries: 36°14'20", 115°14'; west to closest 5000' elevation line at 36°13', 115°22', SW along the 5000' elevation line to 36°08'50", 115°30'; 36°10', 115°10'; to point of beginning. Surface to 9000' MSL within fig boundaries: 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30", 114°48'20"; 36°12', 114°58'; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000' MSL Frequent violations reported of Restricted Area R–4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target pain between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000'.

NEW HAMPSHIRE

COLEBROOK ARPT: New. Lctd ¼ mi W at lat 44°53'21", long 71°30'28". Elev: 1010'. One rnwy 4–22 2500 x 100 turf. P-line and rdo ant 75' hi, 1000' N of arpt. 80/87 fuel. Unattended.

NEW JERSEY

ATLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

DOVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000' MSL. Prior entering area ctc Teterboro Rdo.

TRENTON, MERCER COUNTY ARPT: Rnwy 6–24 clsd until aprxly Dec 31. May be used as txwy only during this period.

NEW MEXICO

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily exep Sat and Sun. These ctld firings are conducted only during VFR wea conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57'30", long 106°33'45". Soil clods may be thrown to a radius of 1000'.

BLOOMFIELD, BRETHERN IN CHRIST MISSION ARPT: Clsd to public use.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and engcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

NEW YORK

NEW YORK CITY: 1520' rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts opers on rotating basis dusk to midngt. From midngt to day break bcn in fixed position with light beamed directly S.

NEW YORK JOHN F. KENNEDY INTL TWR: Effective August 1, 1964, Kennedy Tower will begin an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling reducing frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a single control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runway currently in use shall be issued at this time. Time and altimeter setting will be isued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall consist of only that which will concern the departure aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs, when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK, LA GUARDIA ARPT AREA: Tankers with mast exceeding 100' occasionally traversing Rikers Island ship channel creating obstruction to acft operg on rnwys 13-31 and 4-22. Ctl twr issuing advisory as to presence of tankers when info avbl.

NEW YORK, LA GUARDIA ARPT: FEE Clsd to jet propelled and motorless acft and acft over 105,000 lbs., unless prior permission of Arpt Mgr.

PENN YAN ARPT: Rnwy is hard surfaced (asphalt).

RED HOOK, SKY PARK ARPT: New. Lctd 2 mi E. at lat 41°59', 73°50'. Elev: 3200'. One rnwy N/S 3600 x 100 Gravel. Low intensity rnwy lgts by Unicom req. 80/87, 100–130 fuel. Minor A and P repairs.

ROMULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350' radius centered at lat 42°46'59"N and long 76°53'06"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

SHIRLEY, BROOKHAVEN ARPT: New rnwy 6–24 completed to 4200' asphalt.

NORTH CAROLINA

CLINTON ARPT: Abandoned.

CLINTON, SAMPSON COUNTY ARPT: New. Lctd 3 mi SW at lat 34°58'48", long 78°21'48". One rnwy 6–24 3600 x 250 Turf. Major A and P repairs. 80/87 and 100/130 fuel.

ELIZABETH CITY MUN ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500' pattern from the west.

FAYETTEVILLE, POPE AFB: Extensive operns to 2,000' MSL 1200–2200Z Mon thru Fri. Pilots of all acft are advised that in an area from Lillington, N.C., north along arwy V3E 6 NM to Chalybeate, N.C., counterclockwise west 12 NM to Broadway, N.C., thence SW 38 NM to Marston, N.C., thence E 26 NM to Rockfish, N.C., thence NE 27 NM back to Lillington; intensive training will be conducted W of V3E using heavy four engine transport and prop jet (C–124 and

C–130) acft, consisting of single, formation, and multiple formation flights. These acft oper 2,000′ and below under VFR conditions, conducting low level (300′ AGL to 2,000′ MSL) runs in the maneuvering area described above, for troop and cargo drops into R-5314. Similar operations are conducted in the vicinity of Mackall AAF with drops at Mackall AAF.

WHITEVILLE MUN ARPT: New. Lctd 3 mi SE at lat 34°16′23″, long 78°42′52″. Elev: 80′. One rnwy 5–23 3400′ Turf. 80/87 Fuel. Attended daily, Sat PM and Sun.

OHIO

AKRON MUN ARPT: About Dec 17, gnd ctl freq 121.7 mc will be changed to 121.9 mc.

AKRON, CANTON ARPT: About Dec 17, gnd ctl freq 121.9 mc will be changed to 121.7 mc.

ATHENS RDO: Non-federal Rbn comsnd, freq 206 kc ident: UOA. Lctd lat 39°20′11″, long 81°58′25″. 272 4.4 from rnwy 27 Ohio University Arpt. Class: MHW. Facility owned and operated by Ohio University.

BELLE FONTAINE, TANGER ARPT: Abondoned.

BRYAN, WILLIAMS COUNTY ARPT: Open to public. Lctd 3 mi ESE. Elev: 730′. One rnwy 7–25 3000 x 50 Asphalt, with 700′ overrun at NE end. Low intensity rnwy lgtd operg dusk-dawn. 80/87 and 100/130 Fuel. Attended 0800–2200 Mon–Fri; 0800–1700 Sat, Sun.

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

ELYRIA, HILL ARPT: New. Lctd 2.7 mi SE at lat 41°19′54″, long 82°05′00″. Elev: 760′. One rnwy 9–27 2540 x 70 Turf. P–line W, Trees E. Minor A and P repairs. Unattended.

HAMILTON RDO: Non-federal H fac will be comnsd. Ident: HAO, freq 260 kc. Class: MHW. Lctd lat 39°22′18″, long 84°34′03″. Variation 0°.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area: bounded on S by lat 41°11′30″, on N by lat 41°12′20″; E long 81°04′22″; W long 81°06′14″. Demolition activities in this area will go no higher than 5000′ MSL and only when ceiling of 10,000′ or better and vsby 10 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4–1246).

TOLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400–2300 due to drag races all rnwys UFN.

ZANESVILLE RDO: About Dec 26, VORTAC will be comsnd. TACAN channel 51.

OKLAHOMA

CHICKASHA, SW TOLL ROAD ARPT: New. Lctd 3.5 mi E at lat 35°04′56″, long 97°53′15″, Elev: 1185′. One rnwy 2–20 2700 x 200 Turf. Rnwy 2 apch restricted by road. Glide angle 1 to 1. 80/87 fuel only. Unattended.

ENID: Efctv Nov 15, 1964 ctl zone times will be 0700–1800 local time Mon thru Thurs 0700–2200 local time Fri, from 0800–1600 local time Sat, and 1200–1800 local time Suns. Control zone not designated on holidays.

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet ops is conducted from gnd to 10,000′ MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500′ MSL and maintain 3500′ MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500′ MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500′ MSL. To and from the S maintain 2300′ MSL E of an extended N/S line to a point abeam the town of Bison. To and from the N and E maintain 4000′ MSL or below within 20 mi of Woodring Arpt. Low level je navigation missions now being performed at 100 to 1500′ AGL at 300 knots along the following routes: Vance AFB: 8 nmi N of Fairview: Ft Supply; Parrouzett; Briscoe; Strong City; Bridgeport; Enid Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid, Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200–2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

OKLAHOMA CITY, EXPRESSWAY JUNCTION ARPT: 1002′ (2749′ MSL) lgtd TV twr being constrd 2.5 nmi NW (317° T) at lat 35°34′06″, long 97°29′19″.

PRAGUE MUN ARPT: New. Lctd 2 mi W at lat 35°28′45″, long 96°43′03″. Elev: 1000′. One rnwy 17–35 2500 x 100 Turf. Unattended.

WAGONER AIRSTRIP: 1949′ (2549′ MSL) lgtd TV twr constrd 14 nmi W (273° T) at lat 35°58′09″, long 95°36′55″.

OREGON

The following arpts are clsd for an unknown duration due to winter: Beaver Marsh; Bend, Stearns; Crescent Lake Flight Strip; Idanaha, Strantiam; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000′ in area bounded by 46°12′N, 124°10′ W thence 46°12′N, 123°59′20″W thence along a line one half mi E of shoreline to 46°02′N, 123°55′30″W thence 46°02′N, 124°10′W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates. The followin garpts are closed for an unknown duration, due to winter: Beaver Marsh; Bend, Stearns; Crescent Lake Flight Strip; Idanaha, Stantiam; Lapine.

PENNSYLVANIA

BRISTOL, 3–M AIRPORT: VOR Proc. No. 1, Orig., efctv 5 Sept 1964. During the period of the West Chester VORTAC shutdown, change transition from Ardmore VHF Int to read from "Temporary Ardmore VHF Int to PNE VOR".

HANOVER, DEVENER ARPT: Arpt will be clsd from Jan 1 to April 1, 1965 due to soft conditions and snow

HONESDALE, CHERRY RIDGE ARPT: New. Lat 41°32′, long 75°18′. Elev: 2560′. One rnwy NW/SE 2500′ asphalt. Dalgt hrs only.

ITTSBURGH, GREATER PITTSBURGH ARPT: Radar Proc. No. 1, Amdt. 6, effective 22 February 1964. RVR note for landing is amended to read "Descent below 1368 feet" vice 1403 feet. Automatic cancellation of this NOTAM will be the effective date of the revised procedure appearing in the Federal Register.

ITTSBURGH, GREATER PITTSBURGH ARPT: Creek H facil will be comsnd. Lctd on rnwy 10L extended cntrline 69 nmi from apch end rnwy. Lat 40°30'21", long 80°25'17". Elev: 1116' MSL. Mag variation 4°W. Freq: 219 kc. Ident: CRK. Class: MHW.

EADING, GEN. SPAATZ AIRPORT: Proc. No. ILS-36, Amdt. 8, efctv 13 Oct 62. During the period of the West Chester VORTAC shutdown, change transition from Honeybrook Int to LOM (Final) to read from "Int. RDG Localizer Front course and the LRP 088 radial to LOM (Final)". ADF Proc. No. 1, Amdt. 6, efctv 22 Sept 62. During the period of the West Chester VORTAC shutdown, delete transition from "Honeybrook Int. to LOM (Final)."

SAEFFERSTOWN, KELLER BROS ARPT: Name changed to Lebanon, Keller Bros Arpt.

SOUTH CAROLINA

HERAW MUN ARPT: Closed until aprxly Jan 15.

OLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

SOUTH DAKOTA

STELLINE ARPT: Clsd during winter months.

OBRIDGE RDO: State owned and operd VOR operg 0700-1900, VFR use only. Class: L-VOR. Freq: 108.6, receivers 122.1. Ident: MBG. Lctd lat 45°33'07", long 100°21'56".

TEXAS

MARILLO: Controlled Firing Area lctd 10 mi NE of end of NE/SW rnwy of Amarillo AFB/Mun: Lat 35°-21'09", long 101°37'04" E to 35°21'12", 101°32'26", S to 35°17'56", 101°32'26" W to 35°17'56", 101°37'04", N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552'.

G SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V-66, including area W along V-16S to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V-36, to N-S line drawn through town of Loraine, Tex. Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 60 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

G SPRING HAMILTON FLD: Caution, all alt 3,600' MSL and above intensive jet tfc. T-37 tfc pattern alt at Webb AFB 3,600' MSL.

G SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100' MSL and above, intensive jet tfc. T-37 tfc pattern alt at Webb AFB 3,600' MSL.

EAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13-31 clsd ufn.

HONDO: Randolph AFB jet T-38 and T-33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 600' above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 300' MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress.

HOUSTON INTL ARPT: Inbnd flts etc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° etc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038-188° etc HOU apch ctl on 118.1 or 307.1.

JOHNSON CITY ARPT: Microwave twr under constr 1400' WSW 105' AGL will be obstn lgtd and painted.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1, Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controller airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

LA GRANGE, ROCKY CREEK RANCH ARPT: New. Lctd 5 mi NE at lat 29°55'35", long 96°48'10". Elev: 420'. One rnwy 18-36 3200 x 150 Asphalt.

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000' MSL in this area. It this is not feasible, ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; rcv on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

MIDLAND AIR TRML: Webb AFB T-38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS, acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000' MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42'00", long 98°33'50". Altitude: surface to 3000' MSL (1500' AGL). Time and use: 0830 to 1200 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000′ MSL. Hvy conventional and jet instrument acrobatic and transition trng in SE quadrant btn V198 and V163 and V163W 60 nmi radius of Randolph Mon-Fri. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Aux Arpt. Hvy IFR/VFR penetrations and apcrs will be made from the La Vernia VOR to Randolph AFB. Should necessity dicate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

TEMPLE, DRAUGHON-MILLER ARPT: Clsd until aprxly Mar 1, 1965.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

UTAH

BRYCE CANYON ARPT: Rnwy clsd UFN acct snow.

DUCHESNE MUN ARPT: Lndg may be unsafe when snow covered. No snow removal eqpmt or svc, during winter months.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100′ higher than canyon rim.

GREEN RIVER ARPT: Rnwy lgts operg on prior request.

PRICE ARPT: Rnwy lgts on prior request.

SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10′N, 114°02′W, elevation 9104′ MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

ENOSBURG FALLS, ENOSBURG ARPT: New. Lctd 3 mi E at lat 44°55′20″, long 72°45′20″. Elev: 410′. One rnwy 2600 x 150 Gravel.

VIRGINA

DAHLGREN: Restricted Area R–6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR–SS, Mon-Fri.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08′16″, lat 38°44′26″. Rotary wing acft should avoid this area and fixed wing acft stay above 2000′. Extreme caution advised to all acft flying in area UFN.

FRONT ROYAL, STOKES FLD: Unattended until aprxly Mar 1, 1965.

MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.

RICHMOND, RICHARD E. BYRD FLYING FLD: Rnwy 15–33 avbl only to scheduled DC–7, DC–6, turbo jet and local based military jet acft with prior arrangement with twr.

WASHINGTON

The following is a list of flds that are clsd November–May due to winter elements: Bandera Arpt; Easton Arpt; Enumclaw, Ranger Creek Arpt; Laurier, Avery Arpt; Leavenworth, Lake Wenatchee Arpt; Lester Arpt; Oroville, Nighthawk Arpt; Packwood Arpt; Skykomish Arpt; Stehekin Airfld.

AUBURN EVERGREEN ARPT: Abandoned.

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000′ from approach end and extendin gfor aprxly 2000′ due to construction on fld UFN.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195–300° at 1000′ MSL beyond 2 mi.

SEATTLE: Hi alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

WEST VIRGINIA

CLARKSBURG, BENEDUM ARPT: Constr in progress rnwy 13–31, unlgtd.

WISCONSIN

CAMP DOUGLAS: Control area extension effective March 24, 1964 until further notice.

JANESVILLE: Efctv Jan. 1, 1965, control zone Sun thru Fri 0700 to 2330 and Sat from 0700 to 2000 local time.

NEW RICHMOND MUN ARPT: New. Lctd 1 mi at lat 45°09 long 92°32′. Elev: 995′. One rnwy asphalt NW/SE 3000 x 78. Rnwy lgts dusk-dawn. 100/130 fuel. Unattended.

WYOMING

DULL CENTER/DOUGLAS/SADLER ARPT: Abandoned.

LANCE CREEK, COW CREEK ARPT: Abandoned.

A.I.M. CORRECTIONS

AGE I-4

0. The list of airborne check points and ground check points is published in Section III. VOT's are included with the airport information in Section IV A.

AGE I-5:

VOR Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

The terms VOR, VORTAC, and TACAN are, operationally, general terms covering the VHF and UHF omnidirectional bearing type of facilities without regard to the fact that the power, the frequency protected area, the equipment configuration, and operational requirements may vary between the facilities at different locations.

The table below lists the intended operational service volume or volumes of the various categories of VOR's, VORTAC'S, and TACAN's. Below 18,000 feet msl, the operational service volume of the H class facility has been limited to the L class service volume due to signal coverage characteristics of VHF and UHF facilities at the lower altitudes. T class facilities provide terminal service at locations where it is not practicable to provide L class frequency protection. Normal signal coverage and interference free service may be expected within the operational service volume unless specific facility restrictions have been imposed. Use of these facilities for IFR operations outside of the operational service volume without additional flight inspection it not intended and may result in undependable or inadequate indications in the cockpit.

Class of VOR, VORTAC, or TACAN	Operational Service Volume
(Terminal)	25 nmi up to 12,000′ msl
(Low altitude)	40 nmi up to 18,000′ msl
(High altitude)	40 nmi up to 18,000′ msl 130 nmi from 18,000′ msl 45,000′ msl 100 nmi above 45,000′ msl

GE II-3—PARAGRAPH 3. DIRECT FLIGHTS.

b. The azimuth feature of VOR aids and the azimuth and distance (DME) features of VORTAC/TACAN aids are assigned certain frequency protected areas of airspace which are intended for application to established airway and route use, and to provide guidance for planning flights outside of established airways or routes. These areas of airspace are expressed in terms of cylindrical service volumes of specified dimensions called "class limits" or "categories." An operational service volume has been established for each class in which adequate signal coverage and frequency protection can be assured. To facilitate use of VOR, VORTAC or TACAN aids, consistent with their operational service volume limits, pilot use of such aids for defining a direct route of flight in controlled airspace should not exceed the following:

PAGE II-19—MILITARY CLIMB CORRIDOR RESTRICTED AIRSPACE.

The procedures in this paragraph become effective on January 7, 1965.

Change title to read: "RESTRICTED AIRSPACE".

PAGE III-46—CHANGE OIL BURNER ROUTE "CLEAR VIEW"

Change the following paragraph:

Effective December 24, 1964

Route Width—The route width from 39°31′N, 99°34′W to the route exit point is 5 SM on the west and north side of the route centerline and 10 SM on the east and south side of the route centerline.

PAGE III-53—CHANGE OIL BURNER ROUTE "POOL SHARK"

Effective January 4, 1965

1st paragraph line 12—"direct 41°07′N, 103°39′W; then descend direct to cross 41°03′N 103°35′W at 6100′ MSL; then 6100′ MSL direct to 40°27′N, 102°57′W then descend direct so as to cross 40°25′N 102°55′W at 5800′ MSL then at 5800′ MSL direct to 40°20′N, 102°49′W; then 5800′ MSL direct 39°47′N, 102°49′W; then 5800′ MSL direct 39°05′N, 102°33′W."

PAGE I-36:

Under Vertigo, delete last sentence, "If the beacon ------ etc".

PAGE II-18:

AIRCRAFT CLIMBING/DESCENDING Add new paragraph:

d. If it necessary during a climb or descent to level off at an intermediary altitude, advise ATC.

PAGE II–8:

Under 3. STANDARD INSTRUMENT DEPARTURES (SIDs) add: paragraph d. "It will be the responsibility of each pilot to accept or refuse the clearance issued." Change present d. to e.

PAGE II–16:

HOLDING—Revise paragraph 6, last sentence to read: "Where the fix is associated with an instrument approach, and timed approaches are in effect, a procedure turn shall not be executed unless the pilot advises ATC, since aircraft holding are expected to proceed inbound on final approach directly from the holding pattern when approach clearance is received."

PAGE II–20:

COMMUNICATIONS, 1. g., after the example add the following:

NOTE—Pilots in Alaska, Hawaii, U.S. Territories and possessions, operating at or above flight level 240 and who have requested and received a clearance specifying "VFR Conditions On Top" are requested to report their "actual" altitude as part of their IFR position reporting procedure and advise ATC prior to making an altitude change.

PAGE II–22:

Add the following:

SPECIAL USE AIRSPACE

1. It is mandatory that pilots avoid unauthorized operation in prohibited areas and restricted areas and extremely important that warning areas not be penetrated unless prior approval has been obtained. The following explanation is to impress on all concerned the purpose of such areas and indicate that hazards are presented by activities within restricted and warning areas. Caution and intensive student jet training areas contain activity of interest to the nonparticipating pilot. The operations conducted within these areas are not considered hazardous and consist primarily of high volume military training. These five types of airspace are depicted on aeronautical charts published by the Coast and Geodetic Survey.

   a. **Prohibited Area.** Airpsace identified by an area on the surface of the earth within which the flight of aircraft is prohibited. Such areas are established for security or other reasons associated with the national welfare. These areas are published in the Federal Register.

   b. **Restricted Area.** Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Activities within these areas must be confined because of their nature or limitations imposed upon aircraft operations that are not a part of those activities or both. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft. Penetration of restricted areas during periods of activity may be extremely hazardous to the aircraft and its occupants. Restricted areas are published in the Federal Register and constitute Part 73 of the Federal Aviation Regulations.

   c. **Warning Area.** Warning areas are established beyond the three-mile limit. They are areas of defined dimensions established to contain both visible and invisible hazards to nonparticipating aircraft. Though the activities within the warning areas are as hazardous as those contained within restricted areas, warning areas cannot be legally designated because they are over international waters. Penetration of warning areas during periods of activity may be hazardous to the aircraft and its occupants. Official descriptions of warning areas may be obtained upon request to the FAA, Washington, D.C.

   d. **Caution Area.** Areas of defined dimensions within which the military training activities conducted, though not hazardous, are of interest to nonparticipating pilots. There are no restrictions applicable to flight within these areas. Information concerning these areas may be obtained upon request to the FAA, Washington, D.C.

   e. **Intensive Student Jet Training Area (ISJTA).** These areas are depicted on aeronautical charts to identify airspace utilized by the military for the intensive training of student jet pilots. There is no restriction to VFR flight in these areas. Information on these training areas may be obtained from any FSS within 100 miles of the area.

PAGE II–25:

Change the material under RADAR TRAFFIC INFORMATION SERVICE, subparagraph c. "Issuance of Traffic Information" as follows:

   c. **Issuance of Traffic Information**—Traffic information will include the following concerning a target which may constitute traffic for an aircraft that is:

      (1) Radar identified:
         (a) Azimuth from the aircraft in terms of the twelve hour clock;
         (b) Distance from the aircraft in nautical miles;
         (c) Direction in which the target is proceeding; and
         (d) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffic; i.e., slow or fast moving.

         Example:

         Traffic 10 o'clock, 3 miles, west-bound (type aircraft and altitude, if known or relative speed of the observed traffic). The pilot may, upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller.

(2) Not radar identified:
   (a) Distance and direction with respect to a fix;
   (b) Direction in which the target is proceeding; and
   (c) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffi, i.e., slow or fast moving.
   Example:
   Traffic 8 miles out of the airport northeast-bound, (type aircraft and altitude or relative speed of the observed traffic).

AGE II–25:

Change the material under TERMINAL RADAR ERVICE as follows:

TERMINAL RADAR SERVICE

Provided in designated Terminal Radar Service reas, TRSA).

. This service has been implemented at certain terminal locations and is provided on a voluntary pilot participating basis.

. The purpose of this service is to provide, to the extent possible separation between all participating VFR aircraft and all IFR aircraft operating within the airspace defined as the TRSA.

The TRSA is primarily a radar environment and control is predicated thereon, however, this does not preclude application of nonradar separation when required or deemed appropriate. During weather conditions equal to or better than basic VFR:

(a) 500 feet vertical separation may be used between VFR aircraft and/or between VFR and IFR aircraft.

(b) Visual separation may be used between VFR aircraft and/or between VFR and IFR aircraft when the pilot sees the other aircraft and reports he will maintain visual separation from it.

Within the TRSA traffic information on observed but unidentified targets will, to the extent possible, be provided all IFR and participating VFR aircraft and such aircraft, at the request of the pilot, will be vectored to provide standard radar separation from the observed traffic, insofar as possible.

GE II–30.

Paragraph 4. Change the last line to read "above the port traffic area."

PAGE II–26.

Effective Jan 7, 1965 revise the material under APPROACH CONTROL a. Radar Approach Control, subparagraphs (2) and (3) and add new (4) as follows:

(2) IFR aircraft may be descended to the minimum vectoring altitude, vectored to a position in the airport traffic pattern and cleared for a "visual approach" whenever the reported ceiling is at least 500 feet above the minimum vectoring altitude and the visibility is three miles or more. With a "visual approach" clearance, the pilot operating on an IFR flight plan may deviate from the prescribed instrument aproach procedure and proceed to the airport with visual reference to the surface, maintaining VFR conditions at all times. This procedure will afford a more expeditious service to arriving aircraft and preclude unnecessary vectoring in the final approach course of a published instrument approach procedure.

(3) Clearance for a visual approach is issued when:
   (a) The pilot of an aircraft not following a preceding aircraft reports sighting the airport and the tower controller has the aircraft in sight, or
   (b) An aircraft is positioned behind a preceding aircraft and the pilot of the succeeding aircraft reports sighting that aircraft.

(4) Radar separation is provided from any preceding IFR aircraft until the clearance for a visual approach is issued. Pilots cleared for a visual approach are reminded to advise ATC whenever they are unable to continue following the preceding aircraft and/or they encounter less than basic VFR weather conditions. Radar service will be terminated when the pilot is told to contact the tower. The tower will assign a landing sequence number.

PAGE II–51:

COAST GUARD RESCUE COORDINATION CENTERS New Orleans, La. change telephone number from JA 2-9103 to: 527–6225.

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Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION III A

NOTICES TO AIRMEN

7 JANUARY 1965

Section III—A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the A. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or re-ed Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

E: Data printed entirely in bold face type are considered permt and will usually be cited only once. Such information ld be noted on charts and records. Temporary information is nuously cited until the condition is no longer in effect.

E: Data is arranged in alphabetical order by State (and within State by City or locality).

' OR REVISED DATA: New or revised data are indicated by rlining the first line of the affected item. The new information t necessarily limited to the underlined portion, which is used to attract attention to the new insert.

ALABAMA

OU LA BATRE, BAY VIEW ARPT: Paved 3000' ag strip 75'S and parallel to turf rnwy. P-line each le of drag strip and wire across strip 75' from E end. S turf rnwy under constr, covered with stumps not be used for acft operns.

HERINE, MARTIN FLD: Clsd until spring.

AN MUN ARPT: Rnwy 5—23 lgts permly discontinued.

RUCKER: Extsv IFR and VFR student trng conted in area bounded by V-115 W, V-241 S, V-70 N d V-241 E. Normal hrs of operns 0600–2400 Mon-Fri m surface to 10,000'.

ILE, BROOKLEY AFB: Caution, effective immedily and until further notice all aircraft are warned extensive high performance jet (F-105) traffic in the lowing area during dalgt hrs only: From the sure to 5000' MSL over the Mississippi Sound from a nt 30°15'N, 88°04'W to a point 30°15'N, 88°50'W. ncerned aircraft will be flying a race track pattern ween the above listed coordinates for the purpose of tour map/terrain avoidance radar calibration. erefore, the pilots in the F-105 aircraft will be ited to the amount of visual surveillance they can e to air to air separation under VFR conditions.

IA CRAIG AFB: Extsv jet student trng conducted ing dalgt hrs and occasional ngts Mon-Fri from sure to 6000' MSL. Craig ctl zone saturated dalgt hrs to 0' MSL during student trng. VFR acft should con: Craig twr on 236.6 or 119.5 mc for tfc advisories. lg Twr is avbl for lndg advisories for acft lndg Sel. Clsd excp for ofl bus. clsd to transit aero club acft.

N MUN ARPT: New. Lctd 4 mi S of lat 33°50'30", . 88°07'00". Elev: 464. One rnwy 16—34. 3200 x 75' halt. Rnwy lgts operate dusk-dawn. FSS. Tuscaloosa.

ARIZONA

E ARPT: Clsd until aprxly March 1965.

FREE ARPT: Bcn inop UFN.

AS, PUERTO CIELO ARPT: Closed to general public.

DUNCAN, LAZY B RANCH ARPT: Open to the public. Lctd 11 mi S at lat 32°33', long. 109°05'. Elev: 4135'. Two dirt rnwys 13–31 2200 x 35' and 7–25 1700 x 32'. Unattended.

FT HUACHUCA: See Yuma Special Notice.

GILA BEND: See Yuma Special Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

GRAY MOUNTAIN ARPT: Abandoned.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

MESA, FALCON FLD. Until Feb 20, 1965, small rocket test firing within one mile radius of a point 3 smi N maximum height 2,500 AGL. One day per week 1100 MST to 1500 MST. Contact Phoenix FSS for details.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hidensity jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson,

Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3–21 for unknown duration. Usable length lndg and tkof rnwy 12–30 is 2900′.

TUCSON, RYAN FLD: About Nov 16, all rnwys will be clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000′ MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307. Efctv Jan. 15, 1964 to Jan 15, 1965 the flwg R–2308 Yuma East restricted area is established: Bndrys: beginning at 33°, 114°17′20″; thence N along State Highway 95 to 33°28′, 114°13′; 33°24′, 113°39′; 33°13′12″, 113°21′36″; 33°07′17″, 113°24′10″; 33°02′, 113°33′50″; 33°02′, 113°56′30″; 33°00′, 114°11′; to point of beginning. Designated Altitudes: 1500′ above the surface to 20,000′ MSL. Time of Designation: Continuous, Jan. 15, 1964 to Jan. 15, 1965. Controlling Agency: Federal Aviation Agency, Los Angeles ARTC Center. Using Agency: Commanding Officer, Yuma Proving Ground, Yuma Ariz.

ARKANSAS

JACKSONVILLE, BOND ARPT: Open to the public. Lctd adj NW at lat 34°53′, long. 92°07′. Elev: 300′. One rnwy 1650 x 150′ turf. Rnwy 35 apch restricted by pole line glide angle 1 to 1. Associated FSS Pine Bluff.

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

WARREN MUN ARPT: New. Lctd 3 mi S at lat 33°33′50″, long 92°05′00″. Elev: 234. One rnwy 3–21 2900 x 50′ asphalt. Low intensity rnwy lgts and rotating bcn operg dusk-dawn. Shoulders soft after hvy rains. Associated FSS El Dorado.

CALIFORNIA

AMBOY, ROY ARPT: Closed to the general public.

CORNING MUN ARPT: Clsd until aprxly Feb 10.

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

EUREKA KNEELAND ARPT: New. Lctd 12 mi SE at lat 40°43′10″, long. 123°55′35″. Elev: 2724′. One rnwy 15–33 2200 x 100′ gravel. Ctn ground drops off sharply 11′ from each end of rnwy. Arpt unattended.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″; clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; to 36°34′45″, 121°48′35″; 36°35′45″, 121°49′45″; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LONG BEACH RDO: TACAN portion of VORTAC u usable for apchs to Los Alamitos NAS acct crs rou ness.

LOS ANGELES ARTCC: En route radar service avbl 1 nmi radius Las Vegas VORTAC except unavailable V from 25 miles S Mormon Mesa VORTAC to Morm Mesa VORTAC V21 from 20 miles S Mormon Mesa VO TAC to Los Angeles/Salt Lake City boundary. V8 fr 15 miles S Mormon Mesa VORTAC to Los Angele Lake City boundary. V21E from Mormon Mesa VO TAC to Los Angeles/Salt Lake City boundary. V5 from Craters Intersection to Los Angeles/Salt Lake C boundary. V105/V135 from 25 miles W Las Vegas VO TAC to Los Angeles/Salt Lake City boundary. J9/J1 FL 180–230 inclusive from 30 miles north Boulder V to Los Angeles/Salt Lake City boundary. J60, FL 1 230 incl., from 55 miles N Boulder VOR to Los Ange Salt Lake City boundary. J11 FL 180–230 incl. fro miles S Bryce VORTAC to Los Angeles/Salt Lake C boundary. J92 FL 180–230 incl. from 35 miles Boulder VOR to Los Angeles/Salt Lake City boundar

LOS ANGELES INTL ARPT: Beginning on or about N 25, a 90-day test will be conducted by the LAX FSS evaluate the effectiveness of new concept in Transcri Weather Broadcast script. The new concept will dif from the present procedures in that meteorological a Notice to Airmen data will be broadcast as applied to commonly-travelled routes out of the Los Angeles Met politan Area. Enroute weather reports will follow weather forecast for each route. Only those elements enroute weather reports considered to be operationa significant for flight planning purposes will be spok Dissemination will continue to be over the Los Ang "Homer" on 332 kc; by telephone Spring 6–16-0 Spring 6-1641 and will additionally be fed into a spe "listening-only" interphone circuit paralleling the sent "fastline" circuit serving subscribers at Van N Arpt; Lockheed Air Terminal in Burbank; San F nando Arpt; Whiteman Arpk; in Pacoima and Ran Conejo Arpt near Thousand Oaks. For the duration the test period Weather Bureau pilot automatic t phone weather answering PATWAS will be dis tinued, the two telephone numbers listed above are sently in use in the PATWAS program. As soon practicable the other PATWAS telephone num Poplar 2–4111 and Davis 3–4626 will be connected to Transcribed Weather Broadcast equipment. Until is accomplished calls on these lines will be referre the two Spring numbers.

MODESTO CITY-COUNTY ARPT: All pilots must Stockton Apch Ctl prior to conducting IFR flight op in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

POINT ARGUELLO: Civil acft desiring to transit W call Navy Point Arguello on 122.5 mcs (guard 24 and listen for reply on 124.4 mcs.

RIVERSIDE MUN ARPT: Efctv Dec 10, 1964 Rive control zone will be efctv from 0500 to 2130 local All pilots must contact March Apch Ctl prior condu IFR flight operns in the Riverside control zone.

SACRAMENTO, SACRAMENTO INN HELIPORT: New. Lctd 4 NE at lat 38°36′20″, long. 121°25′50″. Elev: 20′. helipad 50 x 50′ asphalt. Limited to 6000 lbs GWT.

SANTA BARBARA RDO: Width of Naples FM at in cept alt on ILS lclzr crs 3200′ or slightly wider standard ILS OM. During VOR outages or shutd for maintenance, flt checks reveal numerous

ignals being emited by acft rdo shops in Los Angeles rea on Santa Barbara VOR freq 114.9 mc are to be disegarded.

COLORADO

OOMFIELD, JEFFERSON CO ARPT: First 3000' of nwy 11 plus associated txwy clsd for resurfacing, use length both directions 3000'. Ctc unicom for instrucons.

NVER, LOWRY AFB: Ctld firing (demolition) area in se daily except Sat, Sun and holidays 1430-2330Z within a radius of 2500' of point lctd 104°41'11"W, 39°36'-'N up to 1000' above surface.

GLE: Ctld firing for use of Camp Hale. Area is 5 mi radius from point lat 39°27', long 106°19'20", ax ordinate of firing 15,000' MSL. Time of use: ntinuous 24 hrs daily. Controlling agency: Comanding General, Fort Carson.

EBLO: Controlled Firing (demolition) area for use of e Pueblo Ordnance Depot established within the folwing described area: bounded on N by lat 38°22'00"; long 104°21'22"; S, lat 38°18'00"; W, long 104°22'-". Hrs of usage: 0900-1600 MST, Mon-Frl. Max alt 00' above the surface.

CONNECTICUT

TERBURY ARPT: Clsd.

DELAWARE

DLETOWN, SUMMIT AIR PARK: E/W rnwy clsd il aprxly April 1965.

MINGTON, GREATER WILMINGTON AIRPORT: oc. No. ILS-1, Amdt. 8, efctv 8 Aug 64. During the riod of the West Chester VORTAC shutdown, the lowing temporary missed approach procedure will be effect: If visual contact not established upon descent authorized landing minimums, or if landing not acplished, make climbing left turn to 1600' and rn to Wilmington LOM. Hold South, one-minute ht turns, inbound crs. 014 degrees.

DISTRICT OF COLUMBIA

SHINGTON, MT VERNON: Low flying acft requested avoid immediate vcnty Mt. Vernon estate lctd W bank tomac River 10 mi S Washington Natl Arpt.

INGTON NATIONAL ARPT: New helipad adj to txwys 1 1 8 comsnd for lndgs and tkofs. Helicopters using this pad l taxi to and from authorized parking areas. Use of grass a bounded by txwy 1 and txwy 11 and the Page refueling l E of MATS tmnl no longer applicable.

HINGTON NATL ARPT: The Weather Bureau and Federal Aviation Agency will jointly institute a runy visibility observation program for runways 18, 36 l 15. Whenever the runway visibility system serving nway 36 is inoperative with visibility one and one half e or less or runways 18 and 15 are in use for landing craft and the visibility is at or below one and one f mile an observer will be stationed at the approach l of the landing runway and will report visibility ues manually in one quarter mile increments. These ues shall be used in conjunction with reported ceil- and will be mandatory for the runway being served l should not be construed as runway visual range VR) values.

HINGTON NATL ARPT: JET POLICY FOR ASHINGTON NATIONAL AIRPORT—Due to ited ground handling facilities at the Washington National Airport, flight operations of only those turbojet aircraft that meet the following criteria can be accomodated: A. Except under emergency conditions, only approved types of turbojet aircraft of short or medium range (1) are engaged in corporate, private charter or rental type operations, and (2) solely intend to utilize the Airport's General Aviation ground service facilities. B. Currently approved types of medium and short range turbojet aircraft are as follows: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. Short or medium range turbojet aircraft of types not listed above must secure advance authorization from the Airport Manager. Requests for such authorization should be made at least 48 hours in advance of the planned aircraft arrival at the Airport. D. Because of limited capabilities, the Airport cannot accomodate operations of turbojet aircraft for proficiency or practice take-off or landings.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC SPECIAL NOTICE: Non-commercial acft are prohibited from landing in HAITI, unless specific prior authorization is obtained. Seven working days are normally required to obtain clearance. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergencvy fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

COCOA, CENTRAL BREVARD COUNTY ARPT: Fld will be clsd until aprxly January 1965 for constr.

DESTIN ARPK: Clsd perml y.

GAINSVILLE, STENGEL FLD: 670' (849' MSL) lgtd TV twr constrd 4.5 nmi N (351° T) at lat 29°42'34", long 82°23'34".

JACKSONVILLE, IMESON ARPT: Caution, all pilots making ILS apchs to arpt, a bridge lctd aprxly 1¼ mi SW of apch end of rnwy 5 lgtd very brightly at ngt, could give pilots false identification as being a rnwy especially during low ceilings or poor visibility conditions.

LEE, SEARCYS AIRSTRIP: New. Lctd 2 mi NW at lat 30°26'50", long 83°18'40". Elev: 150'. One rnwy 9-27 3300 x 100' turf. Rnwy 9 apch restricted by p-line.

PENSACOLA: Intensive student conventional and jet VFR trng activity crossing V22 at 11,000' MSL btn Navy Saufley (NUN) VOR and Navy Whiting VOR 135 radial; and within a radius of 3 nmi Whiting NAAS and Saufley NAAS at and below 2500' MSL. Suggested alter course or altitude to avoid these areas. Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft rcvg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13-31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1960'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless other-

wise authorized, no person may operate an aircraft in the air corridor between R–2915A, R–2915B and R–2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

GEORGIA

CARROLLTON MUN ARPT: Clsd for resurfacing.
COCHRAN ARPT: Clsd until aprxly May 1965.
MARIETTA, COBB ARPK: Abandoned.
ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.
STATESBORO MUN ARPT: 1000' S end rnwy 18–36 to intsxn of rnwy 13–31 clsd for unknown duration. Remaining rnwy rought usable length 4200' both directions.

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.
DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.
ELK RIVER ARPT: Clsd aprxly May 1965 due winter months.
VICTOR MUN ARPT (BENNETT FLD): Clsd UFN.

ILLINOIS

CHICAGO, MIDWAY ARPT TWR: Efctv Nov 24 radar initiated service to provide tfc advisories to all acft operg VFR in Chicago Metro Area that desire this service. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000' MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft indg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.
PEORIA, GREATER PEORIA ARPT: 5' unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.
POLO, HAMILTON FLD: Closed until further notice due ice and snow.

INDIANA

SCOTLAND: Controlled explosive demolition is conducted week days 0730–1600, at the U.S. Naval Ammunition Depot, Crane, Ind in a controlled firing area one nmi i: diameter lctd 160°/8.7 nmi from Scotland VORTA(from the surface to 2200' MSL.

IOWA

CHARITON ARPK: Clsd for rnwy paving.
NEWTON MUN ARPT: Closed UFN.
WASHINGTON MUN ARPT: Clsd until aprxly June 1 1965.

KANSAS

HUTCHINSON, HARPERS FLD: Abandoned.
SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efct 30 September 1961, is revised as follows effective immediately: Add Note: Radar vectoring to final approach course authorized.
TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Amd 16: ILS–13. Amdt 17 and ILS–31. Amdt 7 are amende as follows, effective immediately: C–dn, two eng or les 65 kt or less, 600–1 vice 500–1. Unlighted smoke stac 1137' msl within circling criteria.

KENTUCKY

CAMPBELLSVJLLE RDO: Non-federal H facility comsnd. Ide "CTC". Freq 354 kc. Class: MHW. Lctd at lat 37°21'15" long. 85°18'45". Hrs of opern 0830–1900 lcl time dail

LOUISIANA

COLUMBIA ARPT: New. Lctd 2 mi NE at lat 32°07'30" long 92°03'10". Elev: 66'. One rnwy 1–19 3000 x 7 asphalt
EUNICE ARPT: New arpt lctd 2 mi S at lat 30°28'00", lon 92°25'30". Elev: 42'. One rnwy 16–34 3000 x 7 asphalt.
NEW ORLEANS INTL ARPT (MOISANT FLD): Th partial vsby exists on rnwy 1–19 from twr defec thermopane glass.

MAINE

DOVER. FOXCROFT SEAPLANE BASE: Abandoned.
HOULTON INTL ARPT: Rnwy 5–23 plowed wint months.

MARYLAND

ANNAPOLIS SPECIAL NOTICE: Electromagnetic r diation vcnty parabolic antenna at Greenburry Po lat 38°58'22", long 76°27'00", about 2.3 nmi ESE. i mediately SE Annapolis NAF. This radiation n visually apparent but definitely dangerous to personn acft, pwr service, insts. Pilots of helicopters warn against hovering in vcnty and should avoid ap closer than ½ mi.
CHESTERTOWN, GILL ARPT: Clsd to transients D 15, 1964–March 31, 1965.
COLLEGE PARK ARPT: Open. The abandoned arp picted on the Washington Sectional Chart is Erro F
STEVENSVILLE, CARROLLS ARPT: Clsd UFN

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts ar through the nearest Massachusetts State Police Hdq
SPECIAL NOTICE: VFR wea warning signs insta arpt ramp areas at number of Cape Cod and border Island lctns. Signs funtion with associated flashi during periods where wea is forecast or actually e below VFR minimums. Sign and lgt sys opera Chatham and Martha's Vineyard during hrs arpt

ended. At Hyannis, New Bedford and Nantucket 24 rs daily.

STON ARTCC: Nov 24, extended radar enroute tfc tl service will apply to acft departing from destined Concord Mun, Hartness Mun, Laconia Mun Airports hile enroute via portions of Blue 63, V-141, V-141E, -93, V-39, V-151, V-151W, V-1697 and V-1695. Nor-al clearance limit is arpt of destination. Primary eq for this service is 127.3, or 354.1 mc. Additional eq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd t Saratoga Springs, N.Y. peripheral site.

STON, LOGAN ARPT: All standard instrument apch ocedures are amended as follows, efctv immediately: OTE: no circling west of the airport authorized om centerline extended rnwy 4 left to centerline ex-nded rnwy 15 when ceiling is less than 800'. CAU-ION: 505' bldg 1.7 mi W of arpt.

NTREE MUN ARPT: Clsd permly.

MICHIGAN

HIGAN: The following arpts are clsd for unknown ration due to winter months. Cheboygan, Marx d.: Munising, Hanley Fld.; Houghton, Sands Arpt.

ENA SPECIAL NOTICE: Control zone and transi-n area effective from 1000 to 1400 hrs lcl time ednesday—Sunday until January 15, 1965, thereafter om 0800–1600 hrs, local time daily.

TLE CREEK—KELLOGG FLD: Proc. No. ILS-22, ndt 1 is revised as follows, effective immediately: sic S-dn minimums Runway 22, 200-½.

TON HARBOR: Efctv Jan. 1, 1965, control zone 0 to 2230 local time.

NE CITY MUN ARPT: NW/SE rnwy clsd UFN.

MMOND ISLAND ARPT: Daily blasting in lime-ne quarry between 1200–1800 EST within 1 mi lius of lat 45°58'00"N long 83°47'30"W aprxly 3.5 SSW, fragments reaching altitude 1500 AGL 2300 SL.

LORD RDO: State owned and operd VOR operg 24 s daily, VFR use only. Class: L-BVOR Freq: 109.2 . Ident: GLR. Lctd lat 45°00'48", long 84°41'30", ylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring egory (1)

SEL ARPT: No snow removal during winter nths.

MAN ARPT: Open ski equipped acft only winter nths.

ISTON ARPT: Open ski equipped acft only winter nths.

ERNE, LOST CREEK SKY RANCH ARPT: Open ski equipped acft for the winter months.

ISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd N.

OMINEE RDO: Control zone efctv immediately m 0730–2130 hrs local time daily UFA.

ISING, HANLEY FLD: Clsd until aprxly May 1965.

BERRY, LUCE COUNTY ARPT: No snow re-val during winter months.

ARPT: Open to ski equipped acft only for the ter months.

NAW MUN ARPT: Clsd to all ngt operns UFN.

AW, TRI-CITY ARPT: 496' (1101' MSL) lgtd TV twr constrd mi E (080° T) at lat 43°33'42", long 83°58'54". This location previously published at NNW (325° T).

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kinchelue AFB. Fragments reaching alt of aprxly 2200', AGL (3000' MSL.)

STAMBAUGH CITY ARPT: Clsd until further notice.

TRAVERSE CITY ARPT: Rnwys 13-31 and 5-23 clsd for the winter.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.

BEMIDJI: Efctv Jan 1, 1965, control zone 0730 to 2000 local time, 0700-2000 until Jan. 1.

BRAINARD: Efctv Jan 1, 1965, control zone 0800 to 1900 local time, 0700-1930 until Jan. 1.

COOK MUN ARPT: Closed winters.

DEER RIVER, BOWSTRING TOWNSHIP ARPT: Closed winters.

DEEP RIVER MUN ARPT: Closed winters.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt. Ctc Hibbing FSS for blasting schedule.

LONGVILLE MUN ARPT: NW/SE rnwy plowed during winter months.

MINNEAPOLIS ARTCC: Radar service in U.S. controlled airspace along J500 btn Gore Bay, Ont and Lakehead, Ont and along J101 from Sault Ste Marie, Mich to 20 nmi north of Greenbay Wisc. now provided from Minneapolis ARTCC. Due to equipment characteristics Center unsable to vector acft to avoid adverse conditions along J90 and J16 btn 25W FSD and 33SE SPR; along J32 btn 70NE ABR and 32E DPR; and along J70 btn 50E ABR and 80NW ABR. Enroute radar service was inaugurated within the Minneapolis advisory area E of a line from a point on the U.S. Canadian bndry 126 nmi NW of the Sault Ste Marie, Mich VOR 47 40', 86°45' thence SW to the Houghton, Mich VOR thence SW to 46°39', 89°45' thence via the Minneapolis apch bndry to the common Minneapolis, Chicago bndry at 45°34', 89°18'. Standard enroute radar separation as appropriate will be provided. Due to eqpmt characteristics weather advisory service cannot be provided.

ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1-19 clsd until aprxly May 1, 1965.

ST PAUL-DOWNTOWN (HOLMAN FLD): Efctv 0600 to 2200 control zone is designated within a 3 mi radius centered at lat 44°56'10", long 98°03'40".

WALKER MUN ARPT: N/S rnwy plowed during winter months.

WORTINGTON: Control zone efctv 0700 to 1830 local time.

MISSISSIPPI

GULFPORT MUN ARPT SPECIAL NOTICE: 1319' (1549' MSL) lgtd TV twr constrd 20 nmi N (356° T) at lat 30°43'25", long 89°05'29".

McCOMB, PIKE COUNTY ARPT: Rnwy 7-25 clsd for unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not pull off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V-13 venty Grandview, Richards-Gebaur Arpt., due concen-

tration of tfc alts. Where possible, suggest all users operate via V–13E btn Kansas City and Butler Arpts.

BRANSON, GOLF RANCH ARPT: Abandoned.

CANTON, SIGMA PHI EPSILON ARPT: New arpt lctd 5 mi NW at lat 40°09′, long. 91°37′. Elev: 653′. One rnwy turf 9–27 1500 x 75′. 80/87 fuel only. Soft when wet.

FT. LEONARD WOOD—FORNEY AAF: Radar Proc. No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C–dn minimums 500–1, 600–1½, 600–1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd to civil acft except on business and on flgt plan. Two-way rdo and prior clearance from twr rgrd before entry into R–4501. Enter R–4501 on SE heading of 140° from Waynesville, Mo.; SSW heading 210° from Vichy, Mo. (VOR); WNW heading of 290° from Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2–20 clsd. Txwy from S end of mil apron to rnwy (1500′) usable for takeoff and lndg in emgcy or on req.

KANSAS CITY, MID CONTINENT ARPT: Control zone designation Control twr service and ADF Procedure No. 1, ILS rnwy 18, ILS rnwy 36 with no restriction to alternate minimums, is extended to include the period 0500 Z to 1300 Z daily, beginning 0500 Z Dec 18, 1964 until 1300 Z Jan 10, 1965.

SPRINGFIELD, SOUTHEAST ARPT: New arpt lctd 1 mi SE at lat 37°11′, long. 93°14′. Elev: 1370′. One rnwy turf N/S 2640 x 100′.

STOCKTON ARPT: New arpt lctd 2 mi S at lat 37°40′, long. 93°48′. Elev: 1035′. One rnwy turf 1–19 2600 x 200′.

MONTANA

BROWNING ARPT: Change name to Starr-School Arpt.

CIRCLE, McCONE CO ARPT: Bcn inop UFN.

GREAT FALLS ARTCC (NOTIP). Efctv July 23, en route radar service excp radar weather advisory service will be available throughout the enlarged Great Falls ARTCC/NOTIP area. Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC/NOTIP. VFR service in the Kalispell, Mont. area will continue to be available through use of the ARTCC freq 120.4 mc. VFR flights in the Kalispell area call 'Great Falls Center—VFR Service'. Further information is contained in a letter to Airmen that has been distributed in the area.

NEBRASKA

CRETE MUN ARPT: Clsd due rnwy constrn.

GRAND ISLAND MUN ARPT: Information inadvertently omitted from Airport Directory Section IV. Add: Lctd 3.5 nmi NE, elev: 1846. Rnwy M72 Services: S5 Lighting: BL5, 6. Unicom 122.8 mc. Fuel: F5, JP1. FSS: Grand Island on fld.

LINCOLN MUNICIPAL AIRPORT/AFB: Proc. No. ILS-35L, Orig., is revised as follows, effec. immediately: Straight-in minimums of 400–¾ required when glide slope not utilized.

OMAHA, EPPLEY ARPT: PROC. NO. ILS–32R (Now ILS–32), Amdt. 5, efctv 21 Sept. 63 is revised as follows: S–n–32, 500–1 with operative SALS.

OMAHA–EPPLEY AIRFIELD: Proc. No. ILS–14, Amdt. 13; ILS–32, Amdt 5; and ADF Proc. No. 1, Amdt 13 are revised as follows, effective immediately: Circling minimums two eng. or less, 65 knots or less, 700 ft. vice 600 ft.

OMAHA, EPPLEY AIRFIELD: ILS–14L, Amdt. 1 9/21/64. Alternate Day-Night Minimums 700-2 al categories. Runway 14L is now Runway 14.

OMAHA RDO: Voice comms with Omaha, Nebr FSS ur usable below 3600′ on V–6–8S btn 38 and 55 nmi E o VORTAC excp tsmtg 116.3 mc.

SIDNEY ARPT: Sioux Ordnance Depot apprxly 8 nm NNW advises that ammunition and ammunition co ponents are destroyed by detonation 1400-2300Z Mo Fri; in addition, large items destroyed by burning a initiated at 2300Z and considered a hazard to low fl ing acft until apprxly 0400Z.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio fo information concerning release time of Restricted Ar R–4803. At other than release times flight is restricte at 8000′ MSL and below along airways in N portio and at 18,000′ MSL and below S of airways in R–48 Geographical coordinates of R–4803 are from 3 nm radius circle centered at lat 39°20′, long 118°52′ an within 3 nmi W and 2 nmi E of a line extending 349° T from the circles center 15 nmi NNW.

SPECIAL NOTICE: Demolition of ordnance being co ducted daily UFN Mon-Fri 1000–1500 with danger acft from surface to 10,000′ MSL within a one and o half mi radius of coordinates 38°14′30″, long 115°3 45″, aprxly 20 mi S of Naval Ammunition Depot Hawthorne.

LAS VEGAS: Hi-density jet tfc: Pilots on other tha IFR clearance should either avoid or use extrem caution when traversing the following areas with which Nellis AFB hi-density jet tfc is operg. Hou of Operation: 0600–1800 local time, Monday thru Sun day, continuous daily at 9000′ MSL and below with a 5 mi radius of Nellis AFB. Surface to 23,000′ MS within fig boundaries: 36°42′, 115°18′; 36°42′, 114°3 36°26′25″, 114°52′15″; 36°23′30″, 114°48′20″; 3 27′30″, 114°31′; 36°24′50″, 114°25′10″; 36°30′, 11 15′40″; 36°32′, 114°12′; 35°56′, 114°12′; 35°56′, 11 45′30″; 36°07′, 115°50′; 36°41′, 115°50′; 36°41′, 11 42′; 36°35′, 115°42′; 36° 35′, 115°37′45″; 36°26′, 11 23′25″; 36°26′, 115°18′; to point of beginning. F 5500′ MSL and 23,000′ MSL within the fig boundarie 36°07′, 115°50′; 36°41′, 115°50′; 36°41′, 115°42′; 36°3 115°42′; 36°35′, 115°37′45″; 36°26′, 115°23′25″; 36°2 25″, 115°23′25″; SE along US 95 to 36°14′20″, 115°1 west to closest 5000′ elev line at 36°13′, 115°22′; S along 5000′ elevation line to 36°08′50″, 115°30′; point of beginning. Surface to 23,000′ MSL with fig boundaries: 36°42′, 115°18′; 36°26′, 115°23′25 36°23′25″, 115°23′25″, SE along US 95 to 36°14′2 115°14″; 36°13′, 115°07′30″; clockwise along NW ed of a 5-mile circle around Nellis AFB to 36°15′3 115°07′45″; 36°31′, 114°56′40″; 36°34′30″; 114°4 30″; 36°42′, 114°32′; to point of beginning. Btn 90 MSL and 9000′ MSL within fig boundaries: 36°3 114°56′40″; 36°42′, 114°12′; 36°32′, 114°12′; 36°2 30″, 114°48′20″; to point of beginning. Btn 1000 MSL and 23,000′ MSL within fig boundaries: 36°1 20″, 115°14′; west to closest 5000′ elevation line 36°13′, 115°22′, SW along the 5000′ elevation line 36°08′50″, 115°30′; 36°10′, 115°10′; to point of beg ning. Surface to 9000′ MSL within fig boundarie 36°15′30″, 115°07′45″; 36°31′, 114°56′40″; 36°23′30 114°48′20″; 36°12′, 114°58′; clockwise along sout edge of Nellis AFB Control Zone to point of begin

Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000' MSL Frequent violations reported of Restricted Area R-4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000'.

NEW HAMPSHIRE

OLEBROOK ARPT: New. Lctd ¼ mi W at lat 44°53'21", long 71°30'28". Elev: 1010'. One rnwy 4–22 2500 x 100 turf. P-line and rdo ant 75' hi, 1000' N of arpt. 80/87 fuel. Unattended.

ILMANTON IRON WORKS, BESSE FLD: Clsd during winter months.

LAN, PONTOOK ARPT: New. Lctd 11 mi SSW at lat 44°38', long 71°15'. Elev: 1165'. One rnwy E/W 1800 x 75 Turf. Trees and P-line NE. Unattended.

ASHUA RDO: Non-Federal MHW facil comsnd for public use. Freq: 260 kc. Ident: AMH. Lctd at lat 42°49'05", long 71°35'35". Owned and operd by New Hampshire Aero Commission.

NEW JERSEY

TLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

OVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000' MSL. Prior entering area ctc Teterboro Rdo.

EAN CITY ARPT: Clsd until Spring, 1965.

RENTON, MERCER COUNTY ARPT: Rnwy 6–24 clsd until aprxly Dec 31. May be used as txwy only during this period.

EST MILFORD, GREENWOOD LAKE ARPT: Arpt will be unattended Christmas Day, New Years Day, Easter Sunday and Thanksgiving Day.

NEW MEXICO

AMOGORDO MUN ARPT: Pole 1200' from apch end rnwy 16.

BUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 5 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

BUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR weather conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57'30", long 106°33'45". Soil clods may be thrown to a radius of 1000'.

OMFIELD, BRETHERN IN CHRIST MISSION ARPT: Clsd to public use.

AN, UTE DAM ARPT: New. Lctd 2 mi W of lat 35°21'45", long 93°26'30". Elev: 3800'. One rnwy 2–20 3700 x Dirt. Rnwy 20 apch restricted by P-line. Glide angle 1 to 1. Rough with gravel on rnwy.

S ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

RATON, LA MESA PARK AIRSTRIP: New. Lctd adj SW at lat 36° 52', long 104°27'. Elev: 6500'. Two rnwys Turf N/S 5000' and NE/SW 3500.

NEW YORK

HORSEHEADS, OMNI ARPT: New. Lctd 5 mi N. at lat 42°14', long 76°51'. Elev: 940'. One rnwy N/S 1850 x 1500 Turf. Unattended.

ITHACA, McPHERSON SEAPLANE BASE: Open to public. 80/87 fuel. Major A and P repairs. Unattended.

NEW YORK CITY: 1520' rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts opers on rotating basis dusk to midngt. From midngt to day break bcn in fixed position with light beamed directly S.

NEW YORK JOHN F. KENNEDY INTL TWR: Effective August 1, 1964, Kennedy Tower will begin an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling reducing frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a single control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runway currently in use shall be issued at this time. Time and altimeter setting will be isued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall consist of only that which will concern the departure aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs, when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay ,and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK, LA GUARDIA ARPT AREA: Tankers with mast exceeding 100′ occasionally traversing Rikers Island ship channel creating obstruction to acft operg on rnwys 13–31 and 4–22. Ctl twr issuing advisory as to presence of tankers when info avbl.

NEW YORK, LA GUARDIA ARPT: FEE Clsd to jet propelled and motorless acft and acft over 105,000 lbs., unless prior permission of Arpt Mgr.

PENN YAN ARPT: Rnwy is hard surfaced (asphalt).

RED HOOK, SKY PARK ARPT: New. Lctd 2 mi E. at lat 41°59′, 73°50′. Elev: 3200′. One rnwy N/S 3600 x 100 Gravel. Low intensity rnwy lgts by Unicom req. 80/87, 100–130 fuel. Minor A and P repairs.

ROMULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350′ radius centered at lat 42°46′59″N and long 76°53′06″W. Demolition activities in the area will go no higher than 2000′ MSL and only when ceiling of 5000′ or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

SHIRLEY, BROOKHAVEN ARPT: New rnwy 6–24 completed to 4200′ asphalt.

TICONDEROGA ARPT: Clsd for duration winter season.

WATERTOWN MUN ARPT: Rnwy 1–19 clsd to all operns UFN. Will not be maintained during winter months.

NORTH CAROLINA

CLINTON ARPT: Abandoned.

CLINTON, SAMPSON COUNTY ARPT: New. Lctd 3 mi SW at lat 34°58′48″, long 78°21′48″. One rnwy 6–24 3600 x 250 Turf. Major A and P repairs. 80/87 and 100/130 fuel.

ELIZABETH CITY MUN ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500′ pattern from the west.

FAYETTEVILLE, POPE AFB: Extensive operns to 2,000′ MSL 1200–2200Z Mon thru Fri. Pilots of all acft are advised that in an area from Lillington, N.C., north along arwy V3E 6 NM to Chalybeate, N.C., counterclockwise west 12 NM to Broadway, N.C., thence SW 38 NM to Marston, N.C., thence E 26 NM to Rockfish, N.C., thence NE 27 NM back to Lillington; intensive training will be conducted W of V3E using heavy four engine transport and prop jet (C–124 and C–130) acft, consisting of single, formation, and multiple formation flights. These acft oper 2,000′ and below under VFR conditions, conducting low level (300′ AGL to 2,000′ MSL) runs in the maneuvering area described above, for troop and cargo drops into R-5311. Similar operations are conducted in the vicinity of Mackall AAF with drops at Mackall AAF.

HICKORY MUN ARPT: Rnwys 1–19 and 11–29 clsd due constrn.

WHITEVILLE MUN ARPT: New. Lctd 3 mi SE at lat 34°16′23″, long 78°42′52″. Elev: 80′. One rnwy 5–23 3400′ Turf. 80/87 Fuel. Attended daily, Sat PM and Sun.

NORTH DAKOTA

GARDNER, DEWDROP ARPT: New. Lctd 5 mi E at lat 47°09′, long 96°52′. Elev: 890′. One rnwy E/W 3000 x 100 Turf. Unattended.

GRAFTON. JOHNSON ARPT: Open to public at pilots risk. Lctd 5.6 mi NNE at lat 48°29′, long 97°22′. Elev: 835′. One rnwy N/S 1500 x 36 Turf. N apch restricted by p-line.

LUCCA, LINDEMANN ARPT: Open to public. Lctd 8.7 mi ESE at lat 46°42′, long 97°43′. Elev: 1110′. One rnwy NW/SE 2100 x80 Turf. Minor A repairs only. 80/87 fuel. Unattended.

MADDOCK, RICES ARPK: New. Lctd adj SW at lat 47°57′33″, long 99°32′11″. Elev: 1550′. Two rnwys N/S 2600 x 80 Turf; NW/SE 2000 x 80 gravel. Minor A and P repairs 80/87 fuel. Unattended.

UNDERWOOD MUN ARPT: Reactivated. Lctd 1 mi N. at lat 47°27′, long 101°08′. Elev: 2030′. One rnwy NW/SE 2600 x 100 Turf. Unattended.

OHIO

ATHENS RDO: Non-federal Rbn comsnd, freq 206 kc ident: UOA. Lctd lat 39°20′11″, long 81°58′25″. 272 4.4 from rnwy 27 Ohio University Arpt. Class: MHW. Facility owned and operated by Ohio University.

BELLE FONTAINE, TANGER ARPT: Abandoned.

BRYAN, WILLIAMS COUNTY ARPT: Open to public. Lctd 3 mi ESE. Elev: 730′. One rnwy 7–25 3000 x 50 Asphalt, with 700′ overrun at NE end. Low intensity rnwy lgtd opsg dusk-dawn. 80/87 and 100/130 Fuel. Attended 0800–2200 Mon–Fri; 0800–1700 Sat, Sun.

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500′ MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

ELYRIA, HILL ARPT: New. Lctd 2.7 mi SE at lat 41°19′54″, long 82°05′00″. Elev: 760′. One rnwy 9–27 2540 x 70 Turf. P–line W, Trees E. Minor A and P repairs. Unattended.

HAMILTON RDO: Non-federal H fac comsnd. Ident: HAO, freq 260 kc. Class: MHW. Lctd lat 39°22′18′, long 84°34′03″. Variation 0°.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

LEXINGTON, ROSS FIELD: New. Lctd 4 mi W at lat 40°41′11″, long 82°40′00″. Elev: 1415′. One rnwy N/S 2300 x 75 Turf. 80/87 Fuel.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area bounded on S by lat 41°11′30″, on N by lat 41°12′30″, E long 81°04′22″; W long 81°06′14″. Demolition activities in this area will go no higher than 5000′ MSL and only when ceiling of 10,000′ or better and vsby 3 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4–1246).

OLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400–2300 due to drag races all rnwys UFN.

OKLAHOMA

FTON, BIRKS ARPT: New. Lctd 0.3 mi NE at lat 36°42'30", long 94°56'15". Elev: 780'. One rnwy 5–23 1960 x 120 Turf. Rough, soft when wet. Cattle on fld.

ROKEN ARROW, FUNK ARPT: New. Lctd 3 nmi NE. Elev: 750'. One rnwy 17–35 2500 x 150 Turf. Rnwy 35 apch restricted by P-line. Glide angle 1 to 1.

HICKASHA, SW TOLL ROAD ARPT: New. Lctd 3.5 mi E at lat 35°04'56", long 97°53'15", Elev: 1185'. One rnwy 2–20 2700 x 200 Turf. Rnwy 2 apch restricted by road. Glide angle 1 to 1. 80/87 fuel only. Unattended.

NID: Efctv Nov 15, 1964 ctl zone times will be 0700–1500 local time Mon thru Thurs 0700–2200 local time Fri, from 0800–1600 local time Sat, and 1200–1800 local time Suns. Control zone not designated on holidays.

NID: **Mon-Fri during daigt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet tfc is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500' MSL and maintain 3500' MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500' MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500' MSL. To and from the S maintain 2300' MSL E of an extended N/S line to a point abeam the town of Bison. To and from the N and E maintain 4000' MSL or below within 20 mi of Woodring Arpt. Low level jet navigation missions now being performed at 1000' to 1500' AGL at 300 knots along the following routes: Vance AFB: 8 nmi N of Fairview; Ft Supply; Darrouzett; Briscoe; Strong City; Bridgeport; Enid. Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid. Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 2200–2400 Mon-Fri on 121.3 or rcv on 122.5 mc.**

LAHOMA CITY, EXPRESSWAY JUNCTION ARPT: 802' (2749' MSL) lgtd TV twr being constrd 2.5 nmi NW (317° T) at lat 35°34'08", long 97°29'19".

GUE MUN ARPT: New. Lctd 2 mi W at lat 35°28'45", long 96°43'03". Elev: 1000'. One rnwy 17–35 2500 x 100 Turf. Unattended.

AGONER AIRSTRIP: 1949' (2549' MSL) lgtd TV twr constrd 14 nmi W (273° T) at lat 35°58'09", long 95°36'55".

OREGON

The following arpts are clsd for an unknown duration, due to winter: Beaver Marsh; Bend, Stearns; Crescent Lake Flight Strip; Idanaha, Strantiam; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during daigt hrs from surface to alt of 20,000' in area bounded by 46°12'N, 124°10' W thence 46°12'N, 123°59'20"W thence along a line one half mi E of shoreline to 46°02'N, 123°55'30"W thence 46°02'N, 124°10'W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.

PENNSYLVANIA

BRISTOL, 3-M AIRPORT: VOR Proc. No. 1, Orig., efctv 5 Sept 1964. During the period of the West Chester VORTAC shutdown, change transition from Ardmore VHF Int to read from "Temporary Ardmore VHF Int to PNE VOR".

HANOVER, DEVENER ARPT: Arpt will be clsd from Jan 1 to April 1, 1965 due to soft conditions and snow.

HONESDALE, CHERRY RIDGE ARPT: New. Lat 41°32', long 75°18'. Elev: 2560'. One rnwy NW/SE 2500' asphalt. Daigt hrs only.

PITTSBURGH, GREATER PITTSBURGH ARPT: Radar Proc. No. 1, Amdt. 6, effective 22 February 1964. RVR note for landing is amended to read "Descent below 1368 feet" vice 1403 feet. Automatic cancellation of this NOTAM will be the effective date of the revised procedure appearing in the Federal Register.

PITTSBURGH, GREATER PITTSBURGH ARPT: Creek H facil will be comsnd. Lctd on rnwy 10L extended cntrline 69 nmi from apch end rnwy. Lat 40°30'21", long 80°25'17". Elev: 1116' MSL. Mag variation 4°W. Freq: 219 kc. Ident: CRK. Class: MHW.

READING, GEN. SPAATZ AIRPORT: Proc. No. ILS-36, Amdt. 8, efctv 13 Oct 62. During the period of the West Chester VORTAC shutdown, change transition from Honeybrook Int to LOM (Final) to read from "Int. RDG Localizer Front course and the LRP 088 radial to LOM (Final)". ADF Proc. No. 1, Amdt. 6, efctv 22 Sept 62. During the period of the West Chester VORTAC shutdown, delete transition from "Honeybrook Int. to LOM (Final)."

SCHAEFFERSTOWN, KELLER BROS ARPT: Name changed to Lebanon, Keller Bros Arpt.

TIONESTA, BENNINGER ARPT: Clsd due to snow UFN.

SOUTH CAROLINA

CHERAW MUN ARPT: Closed until aprxly Jan 15.

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

SOUTH DAKOTA

ESTELLINE ARPT: Clsd during winter months.

MOBRIDGE RDO: State owned and operd VOR operg 0700–1900, VFR use only. Class: L-VOR. Freq: 108.6, receivers 122.1. Ident: MBG. Lctd lat 45°33'07", long 100°21'56".

TEXAS

AMARILLO: Controlled Firing Area lctd 10 mi NE of end of NE/SW rnwy of Amarillo AFB/Mun: Lat 35°-21'09", long 101°37'04" E to 35°21'12", 101°32'26", S to 35°17'56", 101°32'26" W to 35°17'56", 101°37'04", N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552'.

BALMORHEA ARPT: Reactivated. Lctd 1 mi NW at lat 30°59'36", 103°46'00". Elev: 3300'. Two rnwys Gravel 6–24 5000 x 40 and 7–25 2500 x 40. Rnwy 24 apch restriced by P-line.

BEAUMONT PORT ARTHUR-JEFFERSON CO ARPT: 305' (320' MSL) lgtd rdo twr constrd 5.5 nmi NW (320° T) at lat 30°01'14", long 94°05'03".

BIG SPRING: Due intsv jet tfc at Webb operg Mon-Fri during daigt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area

encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V–66, including area W along V–16S to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V–66, to N–S line drawn through town of Loraine, Tex. Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 60 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

BIG SPRING HAMILTON FLD: Caution, all alt 3,600′ MSL and above intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600′ MSL.

BIG SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100′ MSL and above, intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600′ MSL.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13–31 clsd ufn.

DALLAS, LOVE FLD: Two bldgs being erected 5 nmi SSE (144°T) at lat 32°47′00″, long 96°47′50″. Bldg A max tmpry hgt 661′ (1115′ MSL). Completed bldg will be 595.5′. (1039′ MSL). Bldg B will reach max tmpry hgt 710′ (1149′ MSL) in Jan 1965. Completed bldg will be 609.5′ (1049′ MSL).

ELYSIAN FIELDS ARPT: New. Lctd 0.1 mi E at lat 32°22′00″, long 94°10′45″. Elev: 338′. One rnwy 17–35 1700 x 100 Turf.

HONDO: Randolph AFB jet T-38 and T–33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 600′ above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 300′ MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress.

HOUSTON INTL ARPT: Inbnd flts ctc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° ctc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038–188° ctc HOU apch ctl on 118.1 or 307.1.

JOHNSON CITY ARPT: Microwave twr under constr 1400′ WSW 105′ AGL will be obstn lgtd and painted.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1. Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controller airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

LA GRANGE, ROCKY CREEK RANCH ARPT: New. Lctd 5 mi NE at lat 29°55′35″, long 96°48′10″. Elev: 420′. One rnwy 18–36 3200 x 150 Asphalt.

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000′ MSL in this area. It this is not feasible ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; ctc on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

MIDLAND AIR TRML: Webb AFB T–38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS. acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000′ MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

PRESIDIO AIRSTRIP: Reactivated. Lctd 1 mi N at lat 29°34′30″ long 104°21′58″, Elev: 2580′. One rnwy 2–20 2290 x 100 Dirt. Rnwy 20 apch restricted by brush. Glide angle 0 to 1.

RUIDOSA ARPT: Reactivated. Name changed to Hot Springs Arpt Lctd 2 mi NE at lat 30°00′12″, long 104°39′20″. Elev: 3000 One rnwy 18–36 2520 x 100 Dirt. Rnwy 18 apch restricted by brush. Glide angle 0 to 1.

SAN ANGELO, MATHIS FLD: 253′ 2088′ MSL) lgtd rdo twr constr 6.5 nmi NNE (027° T) at lat 31°26′46″, long 100°25′43″

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42′00″, long 98°33′50″. Altitude: surface to 3000′ MSL (1500′ AGL). Time and use: 0830 to 1530 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000 MSL. Hvy conventional and jet instrument acrobatic and transition trng in SE quadrant btn V198 and V163 and V163W 60 nmi radius of Randolph Mon-Fri. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Aux Arpt. Hvy IFR VFR penetrations and apchs will be made from the La Vernia VOR to Randolph AFB. Should necessity dictate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

SHALLOWATER ARPT: Efctv Jan 1, 1965 rnwy lengthened 2000′ hard surfaced.

TEMPLE, DRAUGHON-MILLER ARPT: Runway 11–29 clsd until aprxly Mar 1, 1965.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

WACO MUN ARPT: 399′ (997′ MSL) lgtd antenna twr constrd 4.5 SSE (155° T) at Lat 31°32′03″ Long 97°10′55″.

UTAH

BRYCE CANYON ARPT: Rnwy clsd UFN acct snow.
DUCHESNE MUN ARPT: Lndg may be unsafe when snow covered. No snow removal eqpmt or svc, during winter months.
FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.
GREEN RIVER ARPT: Rnwy lgts operg on prior request.
PRICE ARPT: Rnwy lgts on prior request.
SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N, 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

OSBURG FALLS, ENOSBURG ARPT: New. Lctd 3 mi E at lat 44°55'20", long 72°45'20". Elev: 410'. One rnwy 2600 x 150 Gravel.
AIR HAVEN MUN ARPT: Clsd for duration winter season.
MANCHESTER, EQUINOX ARPT: Clsd for duration winter season.
NEWPORT MUN ARPT: Rnwy 5–23 clsd until about May 1, 1965 due snow.

VIRGINA

DAHLGREN: Restricted Area R–6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR–SS, Mon-Fri.
FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.
FRONT ROYAL, STOKES FLD: Unattended until aprxly Mar 1, 1965.
MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.
RICHMOND, RICHARD E. BYRD FLYING FLD: Rnwy 15-33 avbl only to scheduled DC–7, DC–6, turbo jet and local based military jet acft with prior arrangement with twr.

WASHINGTON

The following is a list of flds that are clsd November–May due to winter elements: Bandera Arpt; Easton Arpt; Emmelaw, Ranger Creek Arpt; Laurier, Avery Arpt; Leavenworth, Lake Wenatchee Arpt; Lester Arpt; Oroville, Nighthawk Arpt; Packwood Arpt; Skykomish Arpt; Stehekin Airfld.
AUBURN EVERGREEN ARPT: Abandoned.
EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extendin gfor aprxly 2000' due to construction on fld UFN.
RENTON MUN ARPT TWR: Lgt gun signals not visible 195-300° at 1000' MSL beyond 2 mi.
SEATTLE: Hi alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

WEST VIRGINIA

CLARKSBURG, BENEDUM ARPT: Constr in progress rnwy 13–31, unlgtd.

WISCONSIN

CAMP DOUGLAS: Control area extension effective March 24, 1964 until further notice.
JANESVILLE: Efctv Jan. 1, 1965, control zone Sun thru Fri 0700 to 2330 and Sat from 0700 to 2000 local time.
NEW RICHMOND MUN ARPT: New. Lctd 1 mi at lat 45°09', long 92°32'. Elev: 995'. One rnwy asphalt NW/SE 3000 x 78. Rnwy lgts dusk-dawn. 100/130 fuel. Unattended.

WYOMING

DULL CENTER/DOUGLAS/SADLER ARPT: Abandoned.
LANCE CREEK, COW CREEK ARPT: Abandoned.

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION III A

NOTICES TO AIRMEN

ATTENTION

SEE "NOTICE TO SUBSCRIBERS"
INSIDE OF COVER

21 JANUARY 1965

NOTICE TO SUBSCRIBERS

Many comments have been received from you, the subscribers, containing constructive criticism and offering many fine suggestions for improvement of the Airman's Information Manual (AIM). We appreciate your interest and initiative and assure you that we will evaluate each comment received for possible application to the manual. Each suggestion that furthers the purpose of the AIM and that is feasible on a cost vs. benefit basis, will be incorporated as soon as possible. In this regard, we must remember that each new feature added that increases the size of the manual and related production costs may result in increased subscription cost to be borne by you, the user. We, therefore, ask that you evaluate your suggestions on the basis of "need to know" vs "nice to have" and what you are willing to pay for. Also, information of value to you in your office or business that cannot be identified as having operational value to pilots, cannot be published.

Many of your comments reflect shortcomings on our part in explaining the innovations of the AIM. Some of you requested that the Air Navigation Radio Aids (ANRA) Section of the Airman's Guide be included in the AIM, as you constantly referred to this section for VOR frequency information, etc. It is obvious by your coments that this is one of the areas in which our explanation fell short and we will now try to rectify this situation.

In initial development of the manual, the main purpose has been that the AIM would be developed as a pilot's operational manual containing information that would supplement the data shown on charts. The AIM would contain terminal and preflight planning data, while charts would provide enroute data, to the fullest extent possible, to minimize the need to refer to other sources while enroute. This concept was proposed by you, the users. The next objective was to reduce duplication between charts and the AIM data as much as possible. This was to keep the cost of the AIM as low as possible and to establish a true relationship between the AIM and the charts.

Next to three-hole punching the Airman's Guide, the other most often asked for changes in the Airguide were enlargement of the type size (print) and consolidation of the many separate tabulations that had to be consulted to adequately flight plan. Nearly every comment on this latter item suggested all information in each tabulation be combined into a single listing of all data for each airport. This has been done as is reflected in Sections IV and IV-A. All items contained in the Airman's Guide ANRA Section have been included in the AIM, except for VOR and LF radio range information. For further clarification, the following tabulation indicates items, by title, contained in the Airman's Guide and their location in the AIM:

Airman's Guide	*AIM*
Radar Services (ASR, PAR)	Section IV-A (by airport)
ILS	Section IV-A (by airport)
Control Tower	Section IV-A (by airport)
VHF/DF	Section IV-A (by airport)
Flight Service Stations (FSS)	Section IV-A (complete listing)
ARTC Center Frequencies	Section IV-A (complete listing)
VOR Radiated Test Patterns (VOT)	Section IV-A (by airport)
Transponder Beacons (BCN)	Section IV-A (by airport)

(Included in Section IV-A of the AIM, but not previously provided in Airguide, are identification of voice call and specific frequencies assigned to Approach Control, Departure Control, Ground Control, Clearance Delivery, Traffic Information Service, VFR Advisory Service, etc.).

Therefore, of all former ANRA data, only the VOR and LF radio range information has not been retained in the AIM. Reasons for this decision are as follows:

1. Enroute information should be published on charts, to the extent possible. Radio ranges fall in the category of enroute aids (approach and letdown use of ranges is provided for by Instrument Approach Charts), therefor, charts will be the primary user source for this information.

a. The section of the AIM (IV-A) containing facility data is reproduced every 28 days on the identical cycle (effective date) as the Enroute Charts. Changes to NAVAIDs are applied directly to each revision of Enroute Charts for use of the IFR pilot rather than published in AIM. Updating of NAVAID information on the VFR pilots charts was provided for by the addition of the Visual Navigation Chart Bulletin in Section III (III-34) of the AIM. This Section, which is also published every 28 days, will indicate, cumulatively, all changes to the NAVAIDS, etc., shown on the current edition of each Sectional Chart, until the information is published on the next of the particular chart. This user requested feature provides the VFR pilot with the same cycle of currency of information (28 days) as the IFR pilot.

2. Biweekly Notices to Airmen, Section III-A of the AIM, and teletype NOTAMs update both the Enroute Charts and the Visual Navigation Chart Bulletin between AIM publication dates.

3. Application of the foregoing concept has, we believe, provided the user with current and correct NAVAID data in a more desirable operationally useable form.

In developing this manual, the FAA has attempted to provide for all user identified operational requirements to the fullest extent possible. It must be recognized that FAA has obligations to all aviation and that some requirements applicable to a limited segment of aviation cannot fairly be accommodated at the expense (cost and volume) of all others.

The AIM will be in a test and evaluation status for the next two years and will be revised to accommodate new and changing evaluated user needs. The AIM is published for the benefit of you, the user, and is subject to change in accordance with your identified needs. However, we ask that you give this new publication a fair evaluation by becoming familiar with all its features and uses. Following this period of indoctrination please tell us what you want changed and what you want to stay as is.

Section III–A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the IM. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or revised Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

TE: Data printed entirely in bold face type are considered permanent and will usually be cited only once. Such information uld be noted on charts and records. Temporary information is ntinuously cited until the condition is no longer in effect.

TE: Data is arranged in alphabetical order by State (and within State by City or locality).

W OR REVISED DATA: New or revised data are indicated by derlining the first line of the affected item. The new information not necessarily limited to the underlined portion, which is used y to attract attention to the new insert.

ALABAMA

NISTON, LEE BROS ARPT: Clsd to public.

YOU LA BATRE, BAY VIEW ARPT: Paved 3000' drag strip 75'S and parallel to turf rnwy. P-line each side of drag strip and wire across strip 75' from E end. S/S turf rnwy under constr, covered with stumps not o be used for acft operns.

THERINE, MARTIN FLD: Clsd until spring.

RUCKER: Extsv IFR and VFR student trng conducted in area bounded by V–115 W, V–241 S, V–70 N nd V–241 E. Normal hrs of operns 0600–2400 Mon-Fri rom surface to 10,000'.

LEYVILLE MUN ARPT: Abandoned.

OBILE, BROOKLEY AFB: Caution, effective immediately and until further notice all aircraft are warned f extensive high performance jet (F–105) traffic in the ollowing area during dalgt hrs only: From the surace to 5000' MSL over the Mississippi Sound from a oint 30°15'N, 88°04'W to a point 30°15'N, 88°50'W. Concerned aircraft will be flying a race track pattern etween the above listed coordinates for the purpose of ontour map/terrain avoidance radar calibration. Therefore, the pilots in the F–105 aircraft will be imited to the amount of visual surveillance they can ive to air to air separation under VFR conditions. LMA CRAIG AFB: Extsv jet student trng conducted luring dalgt hrs and occasional ngts Mon-Fri from surace to 6000' MSL. Craig ctl zone saturated dalgt hrs to 000' MSL during student trng. VFR acft should conact Craig twr on 236.6 or 119.5 mc for tfc advisories. Craig Twr is avbl for indg advisories for acft indg Selield. Clsd excp for ofl bus. clsd to transit aero club acft.

ARIZONA

USE ARPT: Clsd until aprxly March 1965.

REFREE ARPT: Bcn inop UFN.

HUACHUCA: See Yuma Special Notice.

LA BEND: See Yuma Special Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

MENTONE, CLOUDMONT ARPK: New. Lctd 3 smi N at lat 34°32'00", long 85°35'25". Elev: 1760'. One rnwy 18–36 2450 x 80' turf. Rnwy 36 apch restricted by trees. Glide angle 1 to 1. Attended dalgt hrs June-Sept.

MESA, FALCON FLD. Until Feb 20, 1965, small rocket test firing within one mile radius of a point 3 smi N maximum height 2,500 AGL. One day per week 1100 MST to 1500 MST. Contact Phoenix FSS for details.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hidensity jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3–21 for unknown duration. Usable length lndg and tkof rnwy 12–30 is 2900'.

TUCSON, RYAN FLD: About Nov 16, all rnwys will be clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000' MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307. Efctv Jan. 15, 1964 to Jan 15, 1965 the flwg R–2303 Yuma East restricted area is established: Bndrys: beginning at 33°, 114°17'20"; thence N along State Highway 95 to 33°28', 114°13'; 33°24', 113°39'; 33°13'12", 113°21'36"; 33°07'17", 113°24'10"; 33°02', 113°33'50"; 33°02', 113°56'30"; 33°00', 114°11'; to point of beginning. Designated Altitudes: 1500' above the surface to 20,000' MSL. Time of Designation: Continuous, Jan. 15, 1964 to Jan. 15, 1965. Controlling Agency: Federal Aviation Agency, Los Angeles ARTC Center. Using Agency: Commanding Officer, Yuma Proving Ground, Yuma Ariz.

ARKANSAS

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000'.

CALIFORNIA

AUBURN: Dec 10, awy bcn site 10, SFO–SLC airway decomsnd.

BAKERSFIELD HELIPORT: Abandoned.

BENTON ARPT: New. Lctd 0.5 mi E at lat 37°49'30", long. 118°28'30". Elev: 5417'. One rnwy N/S 2640 x 100' dirt. Unattended. Associated FSS is Tonopah.

BLUE LAKE, CAVINESS ARPT: Open to the public. Lctd 1 mi W at lat 40°53', long 124°00. Elev: 75'. One rnwy 14–32 1200 asphalt. Unattended.

BURBANK, LOCKHEED AIR TERMINAL TWR: Feb 1, ILS lclzr and glide slope rnwy 7 will be shutdown until aprxly Mar 5 for mod.

COD POINT: About Feb 26, awy bcn site 1A will be decomsnd.

CORNING MUN ARPT: Clsd until aprxly Feb 10.

DAVIS, UNIVERSITY ARPT: Elev: 65'.

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

EVERGREEN RDO: About Feb 4, H facility will be decomsnd.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500' MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37'42", 121°48'47"; clockwise along the arc of 3-mi radius circle centered at 36°35'30", 121°50'30"; to 36°34'45", 121°47'24"; to 36°34'45", 121°48'35"; 36°35'45", 121°49'45"; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

HAWTHORNE ARPT: Rnwy lgts, REIL and txwy lgts will be inop 2300–0700 nightly UFN.

HOUGHTON LAKE HEIGHTS, HOUGHTON LAKE STATE ARPT: Skis only during winter.

HYAMPON ARPT: Clsd UFN due flood.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LONG BEACH RDO: TACAN portion of VORTAC unusable for apchs to Los Alamitos NAS acct crs roughness.

LOS ANGELES ARTCC: En route radar service avbl 10 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V[illegible] from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J10[illegible] FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 5[illegible] miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: A 90-day test is being conducted by the LAX FSS to evaluate the effectiveness of a new concept in transcribed weather broadcast script. The new concept differs from present procedures in that meteorological and notice to Airmen Data is broadcast as applied to six commonly-traveled routes out of the Los Angeles Metropolitan area. Enroute weather reports follow the weather forecast for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes are spoken. Dissemination continues to be over the Los Angeles "HOMER"; also available by telephone over Sprint 6–1640, Poplar 2–4111, Davis 3–4626 and via a special "Listening-only" interphone circuit which parallels the present "fastline" circuit serving subscribers at Van Nuys Airport, Lockheed Air Terminal in Burbank, San Fernando Airport, Whiteman Air Park in Pacoima and Rancho Conejo Airport near Thousand Oaks.

MODESTO CITY-COUNTY ARPT: All pilots must c[illegible] Stockton Apch Ctl prior to conducting IFR flight operns in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

NEWCASTLE: Dec 10, awy bcn site #9 SFO–SLC decomsnd.

POINT ARGUELLO: Civil acft desiring to transit W-[illegible] call Navy Point Arguello on 122.5 mcs (guard 24 hrs) and listen for reply on 124.4 mcs.

RIVERSIDE MUN ARPT: Efctv Dec 10, 1964 Riverside control zone will be efctv from 0500 to 2130 local time. All pilots must contact March Apch Ctl prior conducting IFR flight operns in the Riverside control zone.

SAN LUCAS: Dec 10, airway bcn site 21 LAX–SFO decomsnd.

SANTA BARBARA RDO: Width of Naples FM at intercept alt on ILS lclzr crs 3200' or slightly wider than standard ILS OM. During VOR outages or shutdown for maintenance, flt checks reveal numerous useless signals being emited by acft rdo shops in Los Angeles Area on Santa Barbara VOR freq 114.9 mc are to be disregarded.

ISALIA MUN ARPT: Control zone will be efctv from 0700-2100 lcl time. All pilots must contact Fresno Apch Ctl prior to conducting IFR flight oprns in the control zone.

COLORADO

3OOMFIELD, JEFFERSON CO ARPT: First 3000' of rnwy 11 plus associated txwy clsd for resurfacing, usable length both directions 3000'. Ctc unicom for instructions.

ENVER, LOWRY AFB: Ctld firing (demolition) area in use daily except Sat, Sun and holidays 1430-2330Z within a radius of 2500' of point lctd 104°41'11"W, 39°36'-30"N up to 1000' above surface.

VE CREEK ARPT: Reactivated. Lctd 0.5 mi E at lat 37°46', long 108°53'30". Elev: 6910'. One rnwy 1-19 3700 x 135' dirt. Unattended.

GLE: Ctld firing for use of Camp Hale. Area is 5 nmi radius from point lat 39°27', long 106°10'20", max ordinate of firing 15,000' MSL. Time of use: ontinuous 24 hrs daily. Controlling agency: Commanding General, Fort Carson.

NOVER RDO: About March 4, H facility will be lecomand.

OPER, BRADLEY RANCH ARPT: Clsd to the public.

SON, PACKARD ARPT: New. Lctd 11 mi S Keenesburg at at 39°57', long. 104°31'. Elev: 5280'. One rnwy E/W 3000 x 50' dirt. 80/87 fuel only. Unattended. Associated FSS is Denver.

DVILLE, PAN ARK LODGE ARPT: Open to public. Lctd 9 mi S at lat 39°08', long 106°19'. Elev: 9187'. One rnwy 15-33 3000 x 85' gravel. Rnwy 33 apch restricted by sign and bldg. Associated FSS: Eagle.

EBLO: Controlled Firing (demolition) area for use of he Pueblo Ordinance Depot established within the following described area: bounded on N by lat 38°22'00"; , long 104°21'22"; S, lat 38°18'00"; W, long 104°22'-0". Hrs of usage: 0600-1600 MST, Mon-Fri. Max alt 000' above the surface.

UACHE MUN ARPT: Reactivated. Lctd 2 mi NW at lat 38°05'45", long 106°10'45". Elev: 7635'. One rnwy 10-28 5200 x 120'. Gravel. Unattended.

ACACIO, W. H. LYCKMAN RANCH ARPT: Open to public. ctd 2 mi S at lat 37°11', long 105°34'. Elev: 7750'. One nwy 6-24 4600 x 50' gravel. Both apchs restricted by pole-s. Associated FSS: Trinidad.

CONNECTICUT

ATERBURY ARPT: Clsd.

DELAWARE

DDLETOWN, SUMMIT AIR PARK: E/W rnwy clsd ntil aprxly April 1965.

ILMINGTON, GREATER WILMINGTON AIRPORT: roc. No. ILS-1, Amdt. 8, efctv 8 Aug 64. During the eriod of the West Chester VORTAC shutdown, the ollowing temporary missed approach procedure will be n effect: If visual contact not established upon descent o authorized landing minimums, or if landing not accomplished, make climbing left turn to 1600' and return to Wilmington LOM. Hold South, one-minute ight turns, inbound crs. 014 degrees.

DISTRICT OF COLUMBIA

ASHINGTON, MT VERNON: Low flying acft requested o avoid immediate vcnty Mt. Vernon estate lctd W bank Potomac River 10 mi S Washington Natl Arpt.

WASHINGTON NATL ARPT: The Weather Bureau and the Federal Aviation Agency will jointly institute a runway visibility observation program for runways 18, 36 and 15. Whenever the runway visibility system serving runway 36 is inoperative with visibility one and one half mile or less or runways 18 and 15 are in use for landing aircraft and the visibility is at or below one and one half mile an observer will be stationed at the approach end of the landing runway and will report visibility values manually in one quarter mile increments. These values shall be used in conjunction with reported ceiling and will be mandatory for the runway being served and should not be construed as runway visual range (RVR) values.

WASHINGTON NATL ARPT: JET POLICY FOR WASHINGTON NATIONAL AIRPORT—Due to limited ground handling facilities at the Washington National Airport, flight operations of only those turbojet aircraft that meet the following criteria can be accomodated: A. Except under emergency conditions, only approved types of turbojet aircraft of short or medium range (1) are engaged in corporate, private charter or rental type operations, and (2) solely intend to utilize the Airport's General Aviation ground service facilities. B. Currently approved types of medium and short range turbojet aircraft are as follows: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. Short or medium range turbojet aircraft of types not listed above must secure advance authorization from the Airport Manager. Requests for such authorization should be made at least 48 hours in advance of the planned aircraft arrival at the Airport. D. Because of limited capabilities, the Airport cannot accomodate operations of turbojet aircraft for proficiency or practice take-off or landings.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC SPECIAL NOTICE: Non-commercial acft are prohibited from landing in HAITI, unless specific prior authorization is obtained. Seven working days are normally required to obtain clearance. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergencvy fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

COCOA, CENTRAL BREVARD COUNTY ARPT: Fld will be clsd until aprxly Feb 2, 1965 for constr.

CRESTVIEW ARPT: Abandoned.

EDGEWATER, MASSEY RANCH ARPK: Open to public. Lctd 1 mi W at lat 28°58', long 80°55'30". Elev: 10'. One rnwy 18-36 Turf 4000 x 200. Rnwy 18 apch restricted by P-line. Glide anale 15 to 1. Unattended.

JACKSONVILLE, IMESON ARPT: Caution, all pilots making ILS apchs to arpt, a bridge lctd aprxly 1¼ mi SW of apch end of rnwy 5 lgtd very brightly at ngt, could give pilots false identification as being a rnwy especially during low ceilings or poor visibility conditions.

MIAMI, OPA LOCKA ARPT: Rnwy 5-23 lgts permly decomsnd. Txwy lgts on E/W txwy 18 inches above ground.

PENSACOLA: Intensive student conventional and jet VFR trng activity crossing V22 at 11,000' MSL btn Navy Saufley (NUN) VOR and Navy Whiting VOR 135 radial; and within a radius of 3 nmi Whiting NAAS and Saufley NAAS at and below 2500' MSL. Suggested alter course or altitude to avoid these areas.

Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

ST. AUGUSTINE-FAIRCHILD MUN ARPT: Rnwy 13–31 clsd until aprxly Jan 26, for resurfacing.

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft rcvg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

TAMPA, VANDERBERG ARPT: 400' (435' MSL) lgtd rdo twr constrd 2.5 nmi SSE at lat 27°59'18"|, long 82°19'17.

VALKARIA ARPT: Rnwy 13–31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1960'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93–5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R–2915A, R–2915B and R–2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

GEORGIA

CAIRO MUN ARPT: Clsd due constrn until aprxly May 1, 1965.

CARROLLTON MUN ARPT: Clsd for resurfacing.

COCHRAN ARPT: Clsd until aprxly May 1965.

DOUGLAS MUN ARPT: 550' (782' MSL) lgtd Cable TV twr constrd 3 nmi NE (045° T) at lat 31°31'18", long 82°48'46".

MONTEZUMA MUN ARPT: Abandoned.

MONTEZUMA MUN ARPT: New. Lctd 1 mi E at lat 32°18'15"|, long 84°00'15". Elev: 339'. One rnwy 18–36 3200 x 75' asphalt. Gross acft weight bearing capacity 30,000 lbs single gear. Rotating bcn and rnwy lgts operate dusk-dawn. Unattended.

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

STATESBORO MUN ARPT: 1000' S end rnwy 18–36 to intsxn of rnwy 13–31 clsd for unknown duration. Remaining rnwy rought usable length 4200' both directions.

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.

COTTONWOOD MUN ARPT: Clsd during winter months.

CRAIGMONT ARPT: Clsd during winter months.

CAMAS COUNTY ARPT: Clsd for unknown duration.

CAREY MUN ARPT: Clsd for unknown duration.

DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.

ELK RIVER ARPT: Clsd aprxly May 1965 due winte months.

EMMETT, LANHAM FLD: Clsd UFN.

MAGIC RESERVOIR AIR STRIP: Clsd for unknow duration.

RICHFIELD, REYNOLDS ARPT: Clsd UFN.

VICTOR MUN ARPT (BENNETT FLD): Clsd UF

ILLINOIS

CHICAGO, MIDWAY ARPT TWR: Radar advisory all acft operg VFR. This service is designed to a pilots to see and avoid other tfc by providing rad tfc info. All VFR acft operg within a 30 mi radius MDW at 10,000' MSL or below can obtain this serv by ctcg MDW radar on 119.2 mc. On initial ctc ac are required to advise MDW radar of their ap position and alt, heading being flown and their des nation. All tfc will be current altimeter at MD Acft lndg at MDW will be issued wind and ru info. Tfc transmiting the area will be provided th service ti 4 mi from perimeter of radar scope which time this service will be terminated. Rad service described herein is not to be interpreted relieving the pilots of their responsibility for co tinual vigilance to see and avoid other acft. I provided to aid him in his visual surveillance by callin to the pilots attention pertinent tfc. Pilots are remind that the surveillance radar utilized by controllers do not provide alt info. Pilot participation is not mand tory but is recommended.

PEORIA, GREATER PEORIA ARPT: 5' unlgtd fence apch end rnwy 22. Arriving acft with proper fr should make initial ctc with apch ctl on 125.8 mc regar less of wea.

PEOTONE ARPT: Abandoned.

POLO, HAMILTON FLD: Closed until further notice du ice and snow.

INDIANA

JEFFERSONVILLE, HAPS ARPT: 973' (1949' MSL) lgtd TV t constrd 8 nmi W (280° T) at lat 38°21'23", long 85°50'52

MARION MUN ARPT: Airport Information Desk (AI comsnd. Hrs of opern 0700–1800 EST daily. A serv A teletype will provide weather info locally at Mari Pilot briefs and other flight services may be obtai locally by visiting the AID facility and using t FAS line provided to the Indianapolis FSS.

ORLEANS ARPT: Clsd to acft over 6000 lbs dur winter months.

SCOTLAND: Controlled explosive demolition is conduc week days 0730–1600, at the U.S. Naval Ammuni Depot, Crane, Ind in a controlled firing area one mi diameter lctd 160°/8.7 nmi from Scotland VORTA from the surface to 2200' MSL.

IOWA

CHARITON ARPK: Clsd for rnwy paving.

MT. LEASANT MUN ARPT: Clsd until aprxly Ap 15.

WASHINGTON MUN ARPT: Clsd until aprxly Jun 1965.

KANSAS

INDEPENDENCE RDO: Non federal H facil comsnd for IFR o Ident: "IDP". Class: MHW. Freq: 400 kc/T/. Lctd at k

37°09'36", long 95°46'19". Owned and operated by city of Independence.

ERAL MUN ARPT: Airport Information Desk AIID Facility comsnd. Service A weather info avbl ıID room. Pilot briefs and other flight services obained locally from Liberal by foreign exchange phone, MA 4-7331) in to Garden City FSS.

ONS MUN ARPT: During dalgt hrs agricultural acft n tkofs are using nonstandard patns due to proximity f congested areas and are proceeding at low altitude ut of tfc patn area. Constr on all txwys and ramp eas. NW/SE and NE/SW rnwys clsd.

INA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efctv 9 September 1961, is revised as follows effective immediately: Add Note: Radar vectoring to final approach course authorized.

PEKA, PHILIP BILLARD ARPT: AIDF No 1, Amdt. 3: ILS-13. Amdt 17 and ILS-31. Amdt 7 are amended s follows, effective immediately: C–dn, two eng or less, 1 kt or less, 600–1 vice 500–1. Unlighted smoke stack 37' msl within circling criteria.

HITA, KEN MAR ARPT: Change arpt name to Piper Airpark.

KENTUCKY

PBELLSVILLE, TAYLOR CO ARPT: 350' (1077' MSL) lgtd twr nstrd 4 nmi W (270° T) at lat 37°21'07", long 85°22'39".

ST LIBERTY, MORGAN CITY ARPT: Clsd until prxly March 15, 1965.

TESBURG MUN ARPT: New. Lctd 8 mi N at lat 37°13'20", ng 82°52'30". Elev: 1990'. One rnwy 17–35 2550 x 75' sphalt. Unattended. Associated FSS London, Ky.

LOUISIANA

UMA, HAMMONDS AIR SERVICE SEAPLANE ASE: 408' rdo twr mrkd and lgtd lctd 0.2 nmi SW.

IROE, CHARMINGDALE ARPT: New. Lctd 3.5 mi S at lat 1°24'24", long 92°05'18". Elev: 72'. One rnwy NW/SE 500 x 144' turf. Pole lines N and E. Unattended.

IROE, SELMAN ARPT: 200' (280' MSL) lgtd rdo twr constrd 5 nmi W (265° T) at lat 32°30'25", long 92°06'00".

MAINE

T HARBOR ARPT: Rnwy 11–29 clsd winters, rnwys 35, 4–22 plowed 3000 x 150'.

E HILL ARPT: Clsd winters.

BLOIS FLIGHT STRIP: Clsd winters.

TPORT MUN ARPT: Clsd winters.

LTON INTL ARPT: Rnwy 5–23 plowed winter nths.

SON, ROBBINS FLD: Clsd winters.

EC ARPT: Clsd winters.

LINOCKET MUN ARPT: Rnwy 11–29, txwy and mp plowed winter months. Rnwy 16-34 skd operns ly, snow banks across 16–34 at intersection with 11–. Acft using 16-34 and 11–29 not visible to each her until apchg intersection.

TOWN MUN ARPT: Rnwy 4–22 clsd winters. nwy 15–33 plowed full length and width.

NCETON MUN ARPT: Rnwy 6–23 clsd winter nths.

TERPORT, FERNALD ARPT: Clsd winters.

MARYLAND

ANNAPOLIS SPECIAL NOTICE: Electromagnetic radiation venty parabolic antenna at Greenburry Point lat 38 58'22", long 76 27'00", about 2.3 nmi ESE, immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel, acft, pwr service, insts. Pilots of helicopters warned against hovering in venty and should avoid apchg closer than ½ mi.

CHESTERTOWN, GILL ARPT: Clsd to transients Dec 15, 1964–March 31, 1965.

COLLEGE PARK ARPT: Open. The abandoned arpt depicted on the Washington Sectional Chart is Erco Fld.

GOLDEN HILL ARPT: Clsd winter months.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 242° (M) from the arpt at and below 1200'.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 347° (M) from the arpt at and below 1200'.

STEVENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island letns. Signs funtion with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BOSTON ARTCC: Nov 24, extended radar enroute tfc ctl service will apply to acft departing from destined to Concord Mun, Hartness Mun, Laconia Mun Airports while enroute via portions of Blue 63, V–141, V–141E, V–93, V–39, V–151, V–151W, V–1697 and V–1695. Normal clearance limit is arpt of destination. Primary freq for this service is 127.3, or 354.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd at Saratoga Springs, N.Y. peripheral site.

BOSTON, LOGAN ARPT: All standard instrument apch procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorized from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. CAUTION: 505' bldg 1.7 mi W of arpt.

MICHIGAN

MICHIGAN: The following arpts are clsd for unknown duration due to winter months. Cheboygan, Marx Fld.; Munising, Harvey Fld.; Houghton, Sands Arpt.

ALPENA SPECIAL NOTICE: Control zone and transition area effective from 1000 to 1400 hrs lcl time Wednesday—Sunday until January 15, 1965, thereafter from 0800-1600 hrs, local time daily.

ALPENA, PHELPS-COLLINS ARPT: Rnwy 12–30 clsd to all operns winter months.

BATTLE CREEK—KELLOGG FLD: Proc. No. ILS–22, Amdt 1 is revised as follows, effective immediately: Basic S-dn minimums Runway 22, 200-½.

BENTON HARBOR: Efctv Jan. 1, 1965, control zone 0730 to 2230 local time.

BOYNE CITY MUN ARPT: NW/SE rnwy clsd UFN.

CLIO, WESTPORT ARPT: No snow removal, ctc Flint FSS for current info.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

FENTON, AERO ACRES ARPT: No snow removal, ctc Flint FSS for current info.

FLINT, BISHOP ARPT: Caution, small herd of deer on the S half of fld.

ELMIRA, KANDAHAR ARPT: No snow removal during winter months.

GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00′48″, long 84°41′30″, Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1)

GAYLORD, OTSEGO CO ARPT: Rnwy 18–36, no snow removal during winter months.

HESSEL ARPT: No snow removal during winter months.

HILLMAN ARPT: Open ski equipped acft only winter months.

INDIAN RIVER, CAMPBELL MUN ARPT: No snow removal during winter months.

LAPEER, DUPONT LAPEER ARPT: Ctc Flint FSS for current info during winter months.

LEWISTON ARPT: Open ski equipped acft only winter months.

LUZERNE, LOST CREEK SKY RANCH ARPT: Open to skl equipped acft for the winter months.

MANISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd UFN.

MENOMINEE RDO: Control zone efctv immediately from 0730–2130 hrs local time daily UFA.

MIO ARPT: Open to ski equipped acft only for the winter months.

MUNISING, HANLEY FLD: Clsd until aprxly May 1965.

NEWBERRY, LUCE COUNTY ARPT: No snow removal during winter months.

OWOSSO CITY ARPT: Ctc Flint FSS for current info during winter months.

SAGINAW MUN ARPT: Clsd to all ngt operns UFN.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 EST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)

STAMBAUGH CITY ARPT: Clsd until further notice.

TRAVERSE CITY ARPT: Rnwys 13–31 and 5–23 clsd for the winter.

VANDERBILT, SUNGLENN ARPT: No snow removal during winter months.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.

BEMIDJI: Efctv Jan 1, 1965, control zone 0730 to 2000 local time, 0700-2000 until Jan. 1.

BRAINARD: Efctv Jan 1, 1965, control zone 0800 to 1900 local time, 0700-1930 until Jan. 1.

COOK MUN ARPT: Closed winters.

DEER RIVER, BOWSTRING TOWNSHIP ARPT: Closed winters.

DEEP RIVER MUN ARPT: Closed winters.

ELY MUN ARPT: Clsd to wheeled acft. Not plowed UFN.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt. Ctc Hibbing FSS for blasting schedule.

LITTLE FORK MUN ARPT: Clsd to wheeled acft winter months.

LONGVILLE MUN ARPT: NW/SE rnwy plowed during winter months.

MINNEAPOLIS ARTCC: Radar service in U.S. controlled airspace along J500 btn Gore Bay, Ont and Lakehead, Ont and along J101 from Sault Ste Marie, Mich to 20 nmi north of Greenbay Wisc. now provided from Minneapolis ARTCC. Due to equipment characteristic Center unsable to vector acft to avoid adverse conditions along J90 and J16 btn 25W FSD and 33SE SPR along J32 btn 70NE ABR and 32E DPR; and along J7 btn 50E ABR and 80NW ABR. Enroute radar service was inaugurated within the Minneapolis advisory area E of a line from a point on the U.S. Canadian bndry 126 nmi NW of the Sault Ste Marie, Mich VOR 47°40′, 86°45′ thence SW to the Houghton, Mich VOR thence SW to 46°39′, 89°45′ thence via the Minneapolis apch bndry to the common Minneapolis Chicago bndry at 45°34′, 89°18′. Standard enroute radar separation as appropriate will be provided. Due to eqpmt characteristics weather advisory service cannot be provided.

ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1–19 clsd until aprxly May 1, 1965.

ST PAUL-DOWNTOWN (HOLMAN FLD): Efctv 0600 to 2200 control zone is designated within a 3 mi radius centered at lat 44°56′10″, long 93°03′40″.

WALKER MUN ARPT: N/S rnwy plowed during winter months.

WORTHINGTON: Control zone efctv 0700 to 1830 local time.

MISSISSIPPI

McCOMB, PIKE COUNTY ARPT: Rnwy 7–25 clsd for unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not pull off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V-1 vcnty Grandview, Richards-Gebaur Arpt., due concentration of tfc alts. Where possible, suggest all use operate via V–13E btn Kansas City and Butler Arpt.

FT. LEONARD WOOD—FORNEY AAF: Radar Proc No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C–dn minimums 500–1, 600–1½. S-1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd to civil acft except on business and on figt plan. Two way rdo and prior clearance from twr rqrd before entry into R–4501. Enter R–4501 on SE heading of 140° from Waynesville, Mo.; SSW heading 210° from Vichy, Mo. (VOR); WNW heading of 290° from Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2–20 clsd. Txwy from S end of mil apron to rnwy 15 usable for takeoff and lndg in emgcy or on req.

NSAS CITY, MID CONTINENT ARPT: Control zone esignation Control twr service and ADF Procedure o. 1, ILS rnwy 18, ILS rnwy 36 with no restriction alternate minimums, is extended to include the eriod 0500 Z to 1300 Z daily, beginning 0500 Z Dec 8, 1964 until 1300 Z Jan 10, 1965.

MONTANA

E. McCONE CO ARPT: Bcn inop UFN.

EAT FALLS ARTCC (NOTIP). Efctv July 23, en ute radar service excp radar weather advisory service ill be available throughout the enlarged Great Falls RTCC/NOTIP area. Due to equipment characteristics dar weather advisory service cannot be provided in is area nor on J107 from the centers eastern bound- y to the Canadian border where civil turbojet radar lvisory service is being provided by Great Falls RTCC/NOTIP. VFR service in the Kalispell, Mont. ea will continue to be available through use of the RTCC freq 120.4 mc. VFR flights in the Kalispell ea call 'Great Falls Center—VFR Service'. Further formation is contained in a letter to Airmen that has en distributed in the area.

NEBRASKA

LAND, LINOMA BEACH ARPT: 880' (2049' MSL) lgtd TV r constrd 7.5 nmi WNW (030 deg T) at lat 41 08'33", ng 96°27'01".

TE MUN ARPT: Clsd due rnwy constrn.

ARNEY: Efctv Mar 4, 1965 Kearney, Nebr. control ne will be efctv from 0700 to 2200 hrs local time ily.

OLN MUNICIPAL AIRPORT/AFB: Proc. No. ILS- L, Orig., is revised as follows, effec. immediately: raight-in minimums of 400-¾ required when glide ope not utilized.

AHA, EPPLEY ARPT: PROC. NO. ILS–32R (Now S–32), Amdt. 5, efctv 21 Sept. 63 is revised as fol- ws: S–n–32, 500–1 with operative SALS.

AHA–EPPLEY AIRFIELD: Proc. No. ILS–14, Amdt. : ILS–32, Amdt 5; and ADF Proc. No. 1, Amdt 13 e revised as follows, effective immediately: Circling inimums two eng. or less, 65 knots or less, 700 ft. ce 600 ft.

AHA, EPPLEY AIRFIELD: ILS–14L, Amdt. 13, 21/64. Alternate Day-Night Minimums 700–2 all tegories. Runway 14L is now Runway 14.

AHA RDO: Voice comms with Omaha, Nebr FSS un- able below 3600' on V–6–8S btn 36 and 55 nmi E of ORTAC excp tsmtg 116.3 mc.

NEVADA

CIAL NOTICE: Contact Lovelock Area Radio for formation concerning release time of Restricted Area –4803. At other than release times flight is restricted 8000' MSL and below along airways in N portion d at 18,000' MSL and below S of airways in R–4803. eographical coordinates of R–4803 are from 3 nmi dius circle centered at lat 39°20', long 118°52' and ithin 3 nmi W and 2 nmi E of a line extending 349.5° from the circles center 15 nmi NNW.

CIAL NOTICE: Demolition of ordnance being con- ucted daily UFN Mon-Fri 1000–1500 with danger to ft from surface to 10,000' MSL within a one and one df mi radius of coordinates 38°14'30", long 118°37'- ", aprxly 20 mi S of Naval Ammunition Depot at awthorne.

DERBY: Awy Bcn site 20, SFO-SLC permly decmsnd.

HAZEN: Awy bcn site 23, SFO-SLC permly discontinued.

LAS VEGAS: Hi-density jet tfc: Pilots on other than IFR clearance should either avoid or use extreme caution when traversing the following areas within which Nellis AFB hi-density jet tfc is operg. Hours of Operation: (0800-1800) local time, Monday thru Saturday, continuous daily at 9000' MSL and below within a 5 mi radius of Nellis AFB. Surface to 23,000' MSL within flg boundaries: 36°42', 115°18'; 36°42', 114°32'; 36°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°-27'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°-15'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°-45'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°-42'; 36°35', 115°42'; 36° 35', 115°37'45"; 36°26', 115°-23'25"; 36°26', 115°18'; to point of beginning. Btn 5500' MSL and 23,000' MSL within the flg boundaries: 36 07', 115 50'; 36 41', 115 50'; 36°41', 115°42'; 36 35', 115 42'; 36 35', 115 37'45"; 36°26', 115°23'25"; 36°23'-25", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; west to closest 5000' elev line at 36°13', 115°22'; SW along 5000' elevation line to 36°08'50", 115°30'; to point of beginning. Surface to 23,000' MSL within flg boundaries: 36°42', 115°18'; 36°26', 115°23'25"; 36°23'25", 115°23'25", SE along US 95 to 36°14'20", 115°14"; 36°13', 115°07'30"; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°34'30"; 114°41'-30"; 36°42', 114°32'; to point of beginning. Btn 8000' MSL and 9000' MSL within flg boundaries: 36°31', 114°56'40"; 36°42', 114°12'; 36°32', 114°12'; 36°23'-30", 114°48'20"; to point of beginning. Btn 10,000' MSL and 23,000' MSL within flg boundaries: 36°14'-20", 115°14'; west to closest 5000' elevation line at 36°13', 115°22', SW along the 5000' elevation line to 36°08'50", 115°30'; 36°10', 115°10'; to point of beginning. Surface to 9000' MSL within flg boundaries: 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30", 114°48'20"; 36°12', 114°58'; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000' MSL Frequent violations reported of Restricted Area R–4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000'.

NEW HAMPSHIRE

GILMANTON IRON WORKS, BESSE FLD: Clsd during winter months.

KEENE, MARCY FLD: Clsd winters.

LACONIA MUN ARPT: Arpt Info Desk (AID) facil comsnd. Flgt plan and arpt search services transferred from Concord, N.H. FSS to Montpelier, Vt. FSS.

NORTH STRADFORD ARPT: Clsd winters.

NEW JERSEY

ASHLAND, DELAWARE VALLEY INDUSTRIAL PARK: Abandoned.

ATLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

CALDWELL, WRIGHT ARPT: Rnwy 14 clsd. Rnwy 32 open for lndgs only permanently.

DOVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000′ MSL. Prior entering area ctc Teterboro Rdo.

OCEAN CITY ARPT: Clsd until Spring, 1965.

TRENTON, MERCER COUNTY ARPT: Rnwy 6–24 clsd. May be used as txwy only.

WEST MILFORD, GREENWOOD LAKE ARPT: Arpt will be unattended Christmas Day, New Years Day, Easter Sunday and Thanksgiving Day.

NEW MEXICO

ALAMOGORDO MUN ARPT: Pole 1200′ from apch end rnwy 16.

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR wea conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57′30″, long 106°33′45″. Soil clods may be thrown to a radius of 1000′.

CARLSBAD MUN ARPT: 300′ (3434′ MSL) lgtd rdo twr constrd 20 nmi E (090° T) at lat 32°19′32″, long 103°52′31″.

CONCHAS DAM, CONCHAS LAKE ARPT: 206′ (5503′ MSL) lgtd microwave twr constrd 10 nmi S (173° T) at lat 35°12′29″, long 104°09′32″.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and engcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

MT. DORA ARPT: New. Lctd 3.5 mi N at lat 36°33′54″, long 103°29′24″. Elev: 5500′. Three rnwys Dirt 17–35 2500 x 65; 4–22 2300 x 65; 2–20 2800 x. 65. Rnwys 17, 20 and 22 apchs restricted by P-line; rnwys 2 and 35 apchs restricted mesa. Glide angle 1 to 1. Unattended.

MOUNTAINAIR ARPT: New. Lctd 1.5 mi NE at lat 34°31′30″, long 106°13′55″. Elev: 6700′. One rnwy 5–23 3180 x 30 Dirt. Rnwy 5 apch restricted by fence. Glide angle 1 to 1. Unattended.

NEW YORK

ANTHONYS NOSE: Awy bcn site #4 will be permly decmnsd on or about Feb 15, 1965.

DUNKIRK RDO: About Feb 24, MHW will be permly decmsnd.

KEESEVILLE ARPT: Clsd winters excp to ski acft.

MANNSVILLE ARPT: New. Lctd ¼ mi S at lat 43°42′, long 76°04′. Elev: 500′. One rnwy E/W 2900′ Turf. 80/8 Fuel. Minor A and P repairs. P-line W. Open winters ski acft only.

MORRISONVILLE, NORTHWAY ARPT: Rnwy plowed during winter.

NEW YORK CITY: 1520′ rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts opers on rotating basis dusk to midngt. From midngt to dusk break bcn in fixed position with light beamed direct S.

NEW YORK JOHN F. KENNEDY INTL TWR: Effective August 1, 1964, Kennedy Tower will begin an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling reducing frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a single control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runways currently in use shall be issued at this time. Time and altimeter setting will be isued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall consist of only that which will concern the departure aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs, when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay ,and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK, LA GUARDIA ARPT: FEE Clsd to all propelled and motorless acft and acft over 105,000 lbs unless prior permission of Arpt Mgr. ILS lctzr (rnwys 4 and 22) inop until further notice.

NORTH TONAWANDA, COUNTY LINE ARPT Clsd to transient acft until May 15, 1965.

SIMULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350' radius centered at lat 42°46'59"N and long 76°53'06"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

TICONDEROGA ARPT: Clsd for duration winter season.

WATERTOWN MUN ARPT: Rnwy 1–19 clsd to all operns UFN. Will not be maintained during winter months.

NORTH CAROLINA

ELIZABETH CITY MUN ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500' pattern from the west.

FAYETTEVILLE, GRANNIS ARPT: Lelzr usable area confined to front crs and 35° either side. All other areas unusable.

FAYETTEVILLE, POPE AFB: Extensive operns to 2,000' MSL 1200–2200Z Mon thru Fri. Pilots of all acft are advised that in an area from Lillington, N.C., north along arwy V3E 6 NM to Chalybeate, N.C., counterclockwise west 12 NM to Broadway, N.C., thence SW 38 NM to Marston, N.C., thence E 26 NM to Rockfish, N.C., thence NE 27 NM back to Lillington; intensive training will be conducted W of V3E using heavy four engine transport and prop jet (C–124 and C–130) acft, consisting of single, formation, and multiple formation flights. These acft oper 2,000' and below under VFR conditions, conducting low level (300' AGL to 2,000' MSL) runs in the maneuvering area described above, for troop and cargo drops into R-5311. Similar operations are conducted in the vicinity of Mackall AAF with drops at Mackall AAF.

HICKORY MUN ARPT: Rnwys 1–19 and 11–29 clsd due constrn.

NORTH DAKOTA

HARRISON MUN ARPT: Reactivated. Lctd adj SE at lat 47°-38'30", long 101°23'30". Elev: 1920'. One rnwy 2350' Turf. Unattended.

HAGARA, HALSTENSON ARPT: New. Lctd 1.5 smi NE at lat 48°01'29", long 97°50'40". Two rnwys E/W 2600 x 50 and N/S 1300 x 75 Turf. Rnwys soft when wet. 80/87. Fuel irregularly attended.

HEMBINA MUN ARPT: E/W rnwy clsd and constrn on rnwy 14–32 until aprxly Jul 15, 1965.

HEELE MUN ARPT: Reactivated. Lctd 2.5 mi W at lat 46°51'30", long 99°59'30". Elev: 1900. One rnwy 12–30 2650 x 75 Turf. Rnwy 30 apch restricted by P-line. Unattended.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500' MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area: bounded on S by lat 41°11'30", on N by lat 41°12'20"; E long 81°04'22"; W long 81°06'14". Demolition activities in this area will go no higher than 5000' MSL and only when ceiling of 10,000' or better and vsby 10 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4-1246).

TOLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400–2300 due to drag races all rnwys UFN.

YOUNGSTOWN MUN ARPT: All commercial acft must keep at least 30' wing tip clearance from Admin Bldg very hazardous.

OKLAHOMA

ARDMORE, LAKE MURRAY STATE ARPK: Change name to Ardmore, Downtown Arpt.

ARDMORE, ROBERTS ARPT: New. Lctd 2 mi NE at lat 34°09'30", long 97°05'. Elev: 880'. One rnwy 17–35 Turf 1940 x 100. Rnwy 17 apch restricted by p-line. Rnwy 35 apch restricted by tree. Glide angle 0 to 1. 80/87 Fuel only. Cattle on fld. Unattended.

DUNCAN, HALLIBURTON FLD: 390' (1380' MSL) lgtd rdo twr constrd 8 nmi SSE (168 T) at lat 34°20'57" long 97°55'37".

ENID: Efctv Nov 15, 1964 ctl zone times will be 0700–1800 local time Mon thru Thurs 0700–2200 local time Fri, from 0800 1600 local time Sat, and 1200–1800 local time Suns. Control zone not designated on holidays.

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet tfc is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500' MSL and maintain 3500' MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500' MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500' MSL. To and from the S maintain 2300' MSL E of an extended N/S line to a point abeam the town of Bison. To and from the N and E maintain 4000' MSL or below within 20 mi of Woodring Arpt. Low level jet navigation missions now being performed at 1000' to 1500' AGL at 300 knots along the following routes: Vance AFB: 8 nmi N of Fairview: Ft Supply; Darrouzett; Briscoe; Strong City; Bridgeport; Enid. Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid. Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200–2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

OKLAHOMA CITY EXPRESSWAY JUNCTION ARPT: 1602' (2749' MSL) lgtd TV twr constrd 2.5 nmi NW (317° T) at lat 35°–34'06", long 97°29'19".

OVERBROOK, LAKE MURRAY STATE PARK ARPT: New. Lctd 7 mi S at lat 34°04'15", long 97°07'30". Elev: 814'. One rnwy 14–32 Asphalt concrete 2500 x 50. P-line SE end.

SEMINOLE MUN ARPT: 300' (1147' MSL) lgtd rdo twr constrd 2 nmi S (173° T) at lat 35°13'51", long 96°40'26".

SNYDER, PLEASANT VALLEY ARPT: New. Lctd 4.5 mi W at lat 34°37'50", long 99°01'38". Elev: 1322. One rnwy 17–35 Turf 2200 x 65. Rnwy 35 apch restricted by P-line. Unattended.

STIGLER, WILHITE RANCH ARPT: New. Lctd 1.5 mi W at 35°15', long 95°10'12", Elev: 600'. One rnwy 17–35 Turf 2000 x 50. Unattended.

WAGONER AIRSTRIP: 1949' 2549' MSL) lgtd TV twr constrd 14 nmi W (273° T) at lat 35°58'09", long 95°36'55".

WALTERS TURNPIKE ARPT: New. Lctd 5.5 mi W at lat 34°32'12", long 98°24'24". Elev: 1058'. One rnwy 16–34 Turf 3000 x 200. 80/87 and 100/130 Fuel. Unattended.

WOODWARD, WEST WOODWARD ARPT: 305' (2460' MSL) lgtd rdo twr constrd 2 nmi SW (234° T) at lat 36°24'55", long 99°33'00".

WOODWARD, WEST WOODWARD ARPT: 410' (2446' MSL) lgtd rdo twr constrd 9 nmi NNW (335°T) at lat 36°34'39", long 99°35'40".

YUKON, CIMARRON FLD: Use turf rnwy 17–35 only.

OREGON

The following arpts are clsd for an unknown duration, due to winter: Beaver Marsh; Bend, Stearns; Crescent Lake Flight Strip; Idanaha, Strantiam; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000' in area bounded by 46°12'N, 124°10' W thence 46°12'N, 123°59'20"W thence along a line one half mi E of shoreline to 46°02'N, 123°55'30"W thence 46°02'N, 124°10'W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.

CAVE JUNCTION, SPORTSMENS RANCH ARPT: Clsd until aprxly Mar 1, 1965.

GOLD HILL: Awy Bcn site 34 SFO-SEA permly decmsnd.

NORTH BEND ARPT: About 17 nmi N a moored aluminum colored Vee shaped balloon 75,000 cubic ft capacity being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

UMPQUA RIVER, SCOTTSBURG TO REEDSPORT: River canyon crossed by 4 electric power lines. Twrs on both banks mrkd by red lgts. Easternmost crossing also mrkd with 20" orange aluminum balls spot lgtd from both sides of the river.

PENNSYLVANIA

BRISTOL, 3–M AIRPORT: VOR Proc. No. 1, Orig., efctv 5 Sept 1964. During the period of the West Chester VORTAC shutdown, change transition from Ardmore VHF Int to read from "Temporary Ardmore VHF Int to PNE VOR".

COUDERSPORT, POTATO CITY ARPT: Clsd winter months.

HANOVER, DEVENER ARPT: Arpt will be clsd from Jan 1 to April 1, 1965 due to soft conditions and snow.

INDIANA RDO: Non-Federal MHW facil comsnd. Freq: 242 kc. Ident: INP. Lctd lat 40°37'54", long 79°03'51". Facil owned and operd Indiana County.

LANGHORNE, BUEHL ARPT: Open to public. Lctd 1.5 mi NE at lat 40°11'18", long 74°52'54", Elev: 180'. One turf rnwy 4–22 3250 x 100. Apch to rnwy 22 restricted by wires. Glide angle 5.5 to 1. Unattended.

PHILADELPHIA INTL ARPT: Excavation 1 to 3 ft deep, 100' long and 150' wide aprxly 30' from apch end rnwy 27. Ant structure aprxly 5' hi, 45' long, 217' from apch end rnwy 27 UFN.

PITTSBURGH, GREATER PITTSBURGH ARPT: Creek H facil will be comsnd. Lctd on rnwy 10L extended cntrline (8) nmi from apch end rnwy. Lat 40°30'21", long 80°25'17". Elev: 1116' MSL. Mag variation 4°W. Freq: 219 kc. Ident: CRK. Class: MHW.

READING, GEN. SPAATZ AIRPORT: Proc. No. ILS-36, Amdt. 8, efctv 13 Oct 62. During the period of the West Chester VORTAC shutdown, change transition from Honeybrook Int to LOM (Final) to read from "Int. RDG Localizer Front course and the LRP 055 radial to LOM (Final)". ADF Proc. No. 1, Amdt. 6, efctv 22 Sept 62. During the period of the West Chester VORTAC shutdown, delete transition from "Honeybrook Int. to LOM (Final)."

TIONESTA, BENNINGER ARPT: Clsd due to snow UFN.

SOUTH CAROLINA

CHARLESTON AFB/MUN ARPT: Rnwy 3–21 clsd from Jan 7 until aprxly Feb 15, 1965.

CHERAW MUN ARPT: Closed until aprxly March 15.

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

SOUTH DAKOTA

ESTELLINE ARPT: Clsd during winter months.

MOBRIDGE RDO: State owned and operd VOR opers 0700–1900, VFR use only. Class: L–VOR. Freq: 108.0 receivers 122.1. Ident: MBG. Lctd lat 45°33'07", long 100°21'56".

TENNESSEE

MURFREESBORO MUN ARPT: Glider towing and soaring activity conducted dalgt hrs at and in vcnty arpt.

NASHVILLE, CUMBERLAND FLD: Hvy equipment crossing S end rnwy dalgt hrs Mon-Sat noon.

TEXAS

AMARILLO: Controlled Firing Area lctd 10 mi NE of end of NE/SW rnwy of Amarillo AFB/Mun: Lat 35°21'09", long 101°37'04" E to 35°21'12", 101°32'26" S to 35°17'56", 101°32'26" W to 35°17'56", 101°37'04" N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552'.

ASPERMONT ARPT: New. Lctd 2 mi SW at lat 33°06'45", long 100°15'. Elev: 1790'. Two rnwys 17–35 2050 x 40 and 8–26 2470 x 40. Rnwys 8 and 35 apchs restricted by fence Glide angle 0 to 1. P-line at middle of N/S rnwy.

AUSTIN, MUELLER MUN ARPT: 1199' (2049') lgtd TV twr constr 5.5 nmi WNW (287° T) at lat 30°19'33", long 97°47'58".

BIG SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area encompassed by 15 nmi arc of BGS VOR, exclusive any overlap of V–66, including area W along V–66 to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V 66, to N–S line drawn through town of Loraine. Tfc Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 10 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

BIG SPRING HAMILTON FLD: Caution, all alt 3,000' MSL and above intensive jet tfc. T-37 tfc pattern alt at Webb AFB 3,000' MSL.

BIG SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100' MSL and above, intensive jet tfc. T-37 tfc pattern alt at Webb AFB 3,000' MSL.

BROWNSVILLE, RIO GRANDE VALLEY INTL ARPT: Rnwy 13R-31L clsd except that lgt acft may be cleared to land on rnwy 13R.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13-31 clsd ufn.

CONROE, MONTGOMERY CO ARPT: 304' (492' MSL) lgtd FM twr constrd 5 nmi E (098° T at) lat 30°20'07", long 95°19'31".

DALLAS, LOVE FLD: Two bldgs being erected 5 nmi SSE (144 T) at lat 32°47'00", long 96°47'50". Bldg A max tmpry hgt 661' (1115' MSL). Completed bldg will be 595.5'. (1039' MSL). Bldg B will reach max tmpry hgt 710' (1149' MSL) in Jan 1965. Completed bldg will be 699.5' (1049' MSL).

DENVER CITY ARPT: 350' (3830' MSL) lgtd rdo twr constrd 14 nmi S (175°T) at lat 32°43'50", long 102 47'42".

DOLLESS, HURST FLYERS FLD: Name changed to Bedford Fld.

FAIRFIELD, WATSON ARPT: New. Lctd 2.5 mi S at lat 31°41', long 96°10'10". Elev: 500'. One rnwy N/S 3000 x 75 Turf. Low intensity rnwy lgts oper by prior arrangement with owner Howard Watson, Box 65, Fairfield, Tex. Cattle on fld.

FT WORTH, GREATER SOUTHWEST INTL DALLAS/FT. WORTH FLD: Rnwy 17–35 extended 2600' on N end. New dimensions 9000 x 150. N 3100' clsd due constrn. Usable lndg length both directions 5900'.

FT. WORTH, SAGINAW ARPT: 208' (1008' MSL) lgtd rdo twr constrd 11 nmi W (272° T) at lat 32°52'48", long 97°36'06".

HAMILTON MUN ARPT: 400' (1605' MSL) lgtd rdo twr constrd 3 nmi NNE (020° T) at lat 31°42'59", long 98°07'54".

HONDO: Randolph AFB jet T-38 and T-33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 255.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 300' above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 300' MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress.

HOUSTON INTL ARPT: Inbnd flts etc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° etc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038–188° etc HOU apch ctl on 118.1 or 307.1.

HUNSON CITY ARPT: Microwave twr under constr 1400' WSW 105' AGL will be obstn lgtd and painted.

HUNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1, Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controller airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

KINGSVILLE, KLEBERG CO ARPT: 400' (474' MSL) lgtd TV twr constrd 7.5 nmi E (090° T) at lat 27°33'02", long 97°52'35".

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000' MSL in this area. If this is not feasible, etc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; rcv on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

LIBERTY, HOUSE ARPK: 204' 237' MSL) lgtd rdo twr constrd 3.5 nmi W (277° T) at lat 30°03'32", long 94°47'05".

MIDLAND AIR TRML: Webb AFB T-38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS, acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000' MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

OZONE MUN ARPT: 200' (2626' MSL) lgtd rdo twr constrd 2 nmi S (172° T) at lat 30°41'54", long 101°11'42".

PERRYTON MUN ARPT: 300' (3168' MSL) lgtd rdo twr constrd 2 nmi WNW (284° T) at lat 36°24'34", long 100°47'39".

PRESIDIO, SOLAR AIRLINES FLD: New. Lctd 3 mi N at lat 29°-36'30", long 104°21'30". Elev: 2700'. One rnwy 2–20 5000 x 120 Dirt.

MULESHOE, WARREN FLD: 500' AGL twr constrd 1 mi SW.

RIO HONDO, NORMAN RANCH ARPT: New. Lctd 6.5 mi NE at lat 26°17'45", long 97°31'. Elev: 20'. One rnwy ESE/WNW 2250 x 80' turf. P-line N. Cattle on rnwy.

ROBSTOWN, NUECES CO. ARPT: 982.4' (1049' MSL) lgtd TV twr constrd 3 nmi E (090° T) at lat 27°46'50", long 97°38'03".

SAN ANGELO, MATHIS FLD: 260' (2170' MSL) lgtd rdo twr constrd 3.5 nmi N (5° T) at lat 31°24'41", long 100°28'29".

SAN ANGELO, WEST TEXAS BOYS RANCH ARPT: New. Lctd 15 mi SW at lat 31°20', long 100°37'03". Elev: 1980'. One rnwy 18–36 Turf 2700 x 70'. Rnwy 36 apch restricted by P-line. Glide angle 5 to 1. Livestock on fld.

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42'00", long 98°33'50". Altitude: surface to 3000' MSL (1500' AGL). Time and use: 0830 to 1200 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000' MSL. Hvy conventional and jet instrument acrobatic and transition trng in SE quadrant btn V198 and V163 and V163W 60 nmi radius of Randolph Mon-Fri. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical cross-

ing altitudes en route to Hondo Aux Arpt. Hvy IFR/VFR penetrations and apcrs will be made from the La Vernia VOR to Randolph AFB. Should necessity dicate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

SEMINOLE AERA ARPT: New. Lctd 5 mi W at 32°42'55", long 102°45'07". Elev: 3250'. Two rnwys 17–35. 3870 x 50' Asphalt; 8–26 2700 x 75 Dirt. Med intensity lgts rnwy 17–35 oper dusk to dawn. Inor A and P repairs. 80/87 and 100/130 fuel. Rnwys 17 and 35 apchs restricted by P-lines.

TEMPLE, DRAUGHON-MILLER ARPT: Runway 11–29 clsd until aprxly Mar 1, 1965.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

VICTORIA CO-FOSTER ARPT: 420' (540 MSL) lgtd rdo twr constrd 5 nmi SSW (204°T) at lat 28°46'32", long 96°57'12".

WACO MUN ARPT: 399' (997' MSL) lgtd antenna twr constrd 4.5 SSE 155° T) at Lat 31°32'03" Long 97°10'55".

WICHITA FALLS AIR TRML: 203' (1212' MSL) lgtd rdo twrs/4/ constrd 3 nmi WSW (237° T) at lat 33°57'38", long 98°33'42".

YOAKUM ARPT: Abandoned.

UTAH

BOUNTIFUL: Awy Bcn site 0 SLC-GTF permly deemsnd.

BRYCE CANYON ARPT: Rnwy 12–30 clsd UFN acct snow.

DELTA MUN ARPT: Clsd to all ngt operns 1800–0600 MST efctv Jun 1, 1965 UFN.

DELTA RDO: FSS converted to FSF. Hrs of opern: 0600–1800. H facil, LRCO and VOR ctld from Salt Lake City FSS.

DUCHESNE MUN ARPT: Lndg may be unsafe when snow covered. No snow removal eqpmt or svc, during winter months.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N, 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

BARRE-MONTPELIER ARPT: Rnwy 5–23 clsd until aprxly Apr 15, 1965.

BRISTOL, MUN ARPT: Open winters. N/S rnwy will be plowed.

FAIR HAVEN MUN ARPT: Clsd for duration winter season.

MANCHESTER, EQUINOX ARPT: Clsd for duration winter season.

NEWPORT MUN ARPT: Rnwy 5–23 clsd until about May 1, 1965 due snow.

RUTLAND MUN ARPT: Rnwy 13–31 clsd winters.

VIRGINIA

DAHLGREN: Restricted Area R–6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR–SS, Mon-Fri.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.

FRONT ROYAL, STOKES FLD: Unattended until aprxly Mar 1, 1965.

MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.

RICHMOND, RICHARD E. BYRD FLYING FLD Rnwy 15–33 avbl only to scheduled DC–7, DC–6, turbo jet and local based military jet acft with prior arrangement with twr.

WASHINGTON

The following is a list of flds that are clsd November-May due to winter elements: Bandera Arpt; Easton Arpt; Enumclaw, Ranger Creek Arpt; Laurier, Avery Arpt; Leavenworth, Lake Wenatchee Arpt; Lester Arpt; Oroville, Nighthawk Arpt: Packwood Arpt Skykomish Arpt; Stehekin Airfld.

BELLINGHAM MUN ARPT: Rnwy 2–20 permly clsd. Txwy only

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extendin gfor aprxly 2000' due to construction on fld UFN.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195–300° at 1000' MSL beyond 2 mi.

ROCKY POINT: Awy Bcn site 61B (near Kelso) permly deemsnd

SEATTLE: Hi alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

WEST VIRGINIA

CLARKSBURG, BENEDUM ARPT: Constr in progress rnwy 13–31, unlgtd.

HUNTINGTON, TRI-STATE ARPT: About Feb 8, ILS lclzr will be shut down until aprxly Feb 14, 1965 for relctn.

WHITE SULPHUR SPRINGS, GREENBRIER ARPT: Rnwy lgts oper on req Jan 1 thru Mar 15 and dusk to dawn Mar 16 thru Dec 31

WISCONSIN

CAMP DOUGLAS: Control area extension effective Feb 18, 1965 from 0745–1630 lcl time daily until further notice.

GREEN BAY, AUSTIN-STRAUBEL ARPT: 247.5' (837.5' MSL) lgtd chimney constrd 4.5 nmi E (090° T) at lat 44°29'36", long 88°01'57".

NESVILLE: Efctv Jan. 1, 1965, control zone Sun thru Fri 0700 to 2330 and Sat from 0700 to 2000 local time.

E GENEVA ARPT: Two 176' AGL/1020' MSL/lgtd rdo twrs cntrd 1 nmi NE (044° T) at lat 42°35'40", long 88°23'19".

ND O LAKES, KINGS LAND O LAKES MUN ARPT: Clsd winter months. Rnwy lgts on req (Phone 547-3777.)

ANITOWISH WATERS ARPT: Clsd winters. No fuel until spring.

LWAUKEE, GENERAL MITCHELL FLD: 2400' extension rnwy 7R–25L avbl for day and ngt operns.

WEST SALEM, MAPLE GROVE ARPT: Clsd until April 15, 1965.

WYOMING

DOUGLAS, HORNBUCKLE RANCH ARPT: New Lctd 35 smi NW. at lat 43°13', long 105°38'. Elev: 5100'. Three rnwys NE/SW 3500 x 60'; NW/SE 1500 x 60' and E/W 3800 x 60' Turf. NE and E apchs restricted by P-line. Unattended.

KREMMERER MUN ARPT: Clsd UFN due winter fld conditions.

ILLINOIS

SAMSVILLE "SAM" VOR SHUTDOWN

About Feb 8, VOR will be shut down until aprxly Feb 13 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-52, 446	TOY VOR to Cartter Int	TOY VOR to Temp Cartter Int via TOY 095R	3,000	17,500
V-446	Cartter Int to SAM VOR	Temp Cartter Int to Temp SAM Int via TOY 095R	8,000	17,500
V-44	ENL VOR to SAM VOR	ENL VOR to Temp SAM Int via ENL 082R 267R	3,000	17,500
V-44	Baden Int to SAM VOR	Baden Int to Temp Decker Int via ABB 267R	7,000	17,500
		Temp Decker Int to Temp SAM Int via ENL 082R	7,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SAM VOR	ENL 082R, BIB 142R	3,000
Weston Int	None	
Ridgeway Int	None	
New Haven Int	None	
Mt. Vernon Int	None	
Phillipstown Int	None	
Texas Int	None	
Holland Int	OWB 357R, EVV 062R	2,500
Augusta Int	OWB 353R, EVV 046R	2,000
Princeton Int	OWB 328R_ EVV 013R	2,500
Patton Int	EVV 358R, ENL 082R	7,000
Decker Int	EVV 013R, ENL 082R	7,000
Cartter Int	BIB 216R, TOY 095R	3,000

INDIANA

SCOTLAND "SCJ" VORTAC SHUTDOWN

About Jan 25, VORTAC will be shut down until aprxly Jan 29 for mod. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-171	LEU VOR to SCJ VOR	LEU VOR to Temp SCJ Int via LEU 136R	2,400	17,500
V11W	Cloverdale Int to SCJ VOR	None		
V-11	Wilbur Int to SCJ VOR	Wilbur Int to Temp SCJ Int via IND 205R	3,000	17,500
V-11E	Paragon Int to SCJ VOR	None		
V-171	Martinsburg Int to SCJ VOR	Martinsburg Int to Temp Livonia Int via LOU 309R	3,000	17,500
		Temp Livonia Int to Temp SCJ Int via LOU 309R	5,000	17,500
V-243, 843	BWG VOR to SCJ VOR	BWG VOR to Temp Apalona Int via BWG 347R	3,500	17,500
		Temp Apalona Int to Temp St. Marks Int via BWG 347R	6,000	17,500
		Temp St. Marks Int to Temp Baden Int via BWG 347R	8,200	17,500
		Temp Baden Int to Temp SCJ Int via BWG 347°R	13,500	17,500
V-11E	Jasper Int to SCJ VOR	None		
V-11	Mackey Int to SCJ VOR	Mackey Int to Temp SCJ VOR via EVV 030R	6,000	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
SCJ VOR	BMG 228R, LEU 136R	2,300
Cloverdale Int	None	
Paragon Int	None	
Livonia Int	LOU 309R, ABB 267R	3,000
Mitchell Int	LOU 309R, Ind 184R	4,000
Apalona Int	BWG 347R, EVV 077R	3,500
Baden Int	BWG 347R, ABB 267R	8,000
St. Marks Int	BWG 347R, EVV 062R	6,000

MICHIGAN

CARLETON "CRL" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shutdoen until aprxly Feb 11. For substitute route structure during shutdown use the flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-98	QG VOR to CRL VOR	QG VOR to Temp CRL Int via QG 250R	2,500	17,500
V-224	Tilbury Int to CRL VOR	None		
V-10, 188	Gill Int to Trout Int	Gill Int to Temp Trout Int via JFN 283R	5,000	17,500
V-10, 188	Trout Int to CRL VOR	None		
V-297	St. George Int. to CRL VOR	None		
V-275	VWV VOR to CRL VOR	VWV VOR to Temp CRL Int via VWV 015R	2,500	17,500
V-10	Adrian Int to CRL VOR	Temp Adrian Int to Temp CRL Int via QG 250R	4,000	17,500

Airways	Existing Reporting Points	Temporary Reporting Points	MRA	MAA
	CRL VOR	QG 250R, SVM 168R	2,500	17,500
	Samaria Int	None		
	Adrian Int	VWV 331R, SVM 210R	4,000	17,500
	Dundee Int	VWV 357R, QG 250R	3,000	17,500
	Canard Int	SVM 124R, QG 204R	2,500	17,500
	Essex Int	None		
	Detroit River Int	SVM 143R, QG 227R	2,500	17,500
	Pelee Int	SVM 124R, SKY 010R	3,000	17,500
	Trout Int	QG 137R, SKY 014R	3,000	17,500
	Crest Int	SVM 143R, VWV 050R	3,000	17,500
	St. George Int	STG 309R, SKY 008R	3,000	17,500

MINNESOTA

ODINE "ODI" VORTAC SHUTDOWN

ot Jan 25, VORTAC will be shutdown until aprxly Jan 29 for mod. For stitute route structure during shutdown use the following:

Low Altitude

ays	Existing Airways	Substitute Routes	MRA	MAA
76-	DLL VOR to ODI VOR	DLL VOR to ODI Int via DLL VOR 284 rad	4,000	17,500
97-	Prescott Int to ODI VOR	Prescott Int. to ODI Int via MSP VOR 125 rad	9,500	17,500
97-	LNR VOR to ODI VOR	LNR VOR to ODI In' via LNR VOR 298 rad	3,100	17,500
9..	EAU VOR to ODI VOR	EAU VOR to ODI Int via EAU VOR 176 rad	3,900	17,500
	Caledonia Int to ODI VOR	Caledonia Int to ODI Int UKN VOR 360 rad	3,100	17,500
?...	Chatfield Int to ODI VOR	Chatfield Int to ODI Int via RST VOR 076 rad	3,100	17,500
1..	FGT VOR to ODI VOR	FGT VOR to ODI Int via FGT VOR 114 rad	8,000	17,500
	El Paso Int to ODI VOR	None		

isting Reporting Points	Temporary Reporting Points	MRA
VOR	Tmpry ODI Int—UKN VOR 360 rad & RST VOR 076 rad	2,700
by Int	LNR VOR 298 rad and UKN VOR 048 rad	3,100
Int	FGT VOR 114 rad and RST VOR 046 rad	8,000
na Int	MSP VOR 125 rad and RST VOR 061 rad	9,500
lia Int	EAU VOR 176 rad and RST VOR 061 rad	3,900
on Int	None	
ger Int	None	
e Int	None	
hue Int	FGT VOR 114 rad and RST VOR 351 rad	2,300

High Altitude

ys	Existing Airways	Substitute Routes	MEA	MAA
	MSP VOR to ODI VOR	MSP VOR to ODI Int via MSP VOR 125 RAD	24,000	41,000
	ODI VOR to MKE VOR	ODI Int to MKE VOR via MKE VOR 289 RAD	24,000	41,000
	ODI VOR to JOT VOR	None		

isting Reporting Point	Temporary Reporting Point	MRA
VOR	Tmpry ODI Int—MSP VOR 125 RAD and MCW VOR 052 RAD	24,000

REDWOOD FALLS "RWF" VOR SHUTDOWN

Feb 1, VOR will be shutdown until aprxly Feb 5. For substitute route structures during shutdown use the following:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-24...	ATY VOR to RWF VOR	ATY VOR to RWF Int. via ATY VOR 100 RAD	9,700	17,500
	Alma City Int. to RWF VOR	Alma City Int. to RWF Int. via RST VOR 287 RAD	10,300	17,500
V-26 ..	Lydia Int. to RWF VOR	Lydia Int. to RWF Int. via FGT VOR 258 RAD	8,200	17,500
	HON VOR to RWF VOR	None		
V-148 ..	Mayer Int. to RWF VOR	Mayer Int. to RWF Int. via MSP VOR 236 RAD	8,700	17,500
	FSD VOR to RWF VOR	FSD VOR to RWF Int. via FSD VOR 046 RAD	7,700	17,500
V-268 .	HON VOR to RWF VOR	None		
V-148S	FSD VOR to RWF VOR	None		

Existing Reporting Point	Temporary Reporting Point	MRA
RWF VOR	Temporary RWF Int.: DWN VOR 211 RAD and FSD VOR 046 RAD	7,700
Madison Int	None	
Biscay Int	None	

OHIO

TIVERTON "TVT" VOR SHUTDOWN

About Feb 4, VOR will be shut down until aprxly Feb 15 for freq change to 116.5 mc. For substitute route structure during shut down, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Route	MEA	MRA
V-43...	APE VORTAC to TVT VOR	APE VORTAC to TVT Int. via APE VORTAC 051 rad	3,000	17,500
V-43...	TVT VOR tv BSV VORTAC	TVT Int. to BSV VORTAC via BSV VORTAC 246 rad	3,100	17,500
V-133..	MFD VORTAC to TVT VOR	MFD VORTAC to TVT Int via MFD VORTAC 142 rad	3,000	17,500
V-133,	TVT VOR to ZZV VOR	TVT Int to ZZV VOR via ZZV VOR 344 rad	3,000	17,500
V-443..	CTW VOR to TVT VOR	CTW VOR to TVT Int via CTW VOR 298 rad	3,000	17,500
V-443] V-881	TVT VOR to CLE VORTAC	CLE VORTAC to TVT Int. via CLE VORTAC 181 rad	4,000	17,500
V-210..	IRL VORTAC to TVT VOR	IRL VORTAC to TVT Int. via IRL VORTAC 274 rad	8,000	17,500
V-210..	TVT VOR to ROD VORTAC	TVT Int to ROD VORTAC via ROD VORTAC 084 rad	8,000	17,500
V-443E	TVT VOR to Sharon	None		

Continued on next page

Existing Reporting Point	Temporary Reporting Point	MRA
TVT VOR	Tmpry TVT Int: APE VORTAC 051 rad and ZZV VOR 344 rad	3,000 3,000

PENNSYLVANIA

ELLWOOD CITY "EWC" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shutdown until aprxly Feb 16 for freq/channel change to 115.8 mc/105. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-37	ACC VOR EWC VOR-EWC VOR-ERI VOR	IRL 008 rad to EWC Int None	3,000	17,000
V-115	TDT VOR-EWC VOR	TDT 220 rad to EWC Int	4,000	17,000
V-226	CIP VOR-EWC VOR	CIP 247 rad to tmpry EWC Int	3,500	17,000
V-276	BSV VOR-EWC VOR-TON VOR	BSV 088 rad to TON 281 rad to TON VOR	4,000	17,000
V-297	ACO VOR-EWC VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
EWC VOR	Tmpry EWC Int IRL 008 rad & CIP 247 rad	3,000
Palestine Int	BSV 088 rad & IRL 331 rad	3,000
Midland Int	IRL 331 rad & HLG 020 rad	3,000
Volant Int	ERI 182 rad & CIP 257 rad	7,000
Mercer Int	ERI 182 rad & YNG 106 rad	7,000
Wesley Int	TDT 220 rad & CIP 288 rad	4,000

High Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
J-64	FWA VORTAC to ARD VORTAC	FWA VORTAC 086 rad and ATO VORTAC 269 rad to ATO	FL180	FL450
		ATO VORTAC 097 rad and TON VORTAC 284 rad to TON	FL180	FL450
		TON VORTAC 102 rad and ARD VORTAC 294 rad to ARD	FL180	FL410

ERIE "ERI" VORTAC SHUTDOWN

About Feb 4, VORTAC will be shut down until aprxly Feb 8, 1965 for freq/channel change to 112.7 mc/74. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V-14N	Brocton Int to ERI VORTAC	None		
V-14	DKK VOR to ERI VORTAC	DKK VOR to ERI Int via DKK VOR 245 rad	3,500	17,500
V-14, 126	JFN VORTAC to VORTAC	JFN VORTAC to ERI Int via JFN VORTAC 057 rad	3,500	17,500
V-14N	Fairport Int to ERI VORTAC	None		
V-116	Angler Int to ERI VORTAC	None		
V-116, 126, 170	Warren Int to ERI VORTAC	BFD VOR to ERI Int via BFD VOR 288 rad	6,000	17,5
V-37	Hadley Int to ERI VORTAC	None		
V-37	Catfish Int to ERI VORTAC	ERI RBn to ERI int via ERI RBn 002 brg	2,300	17,9
V-270	JHW VOR to ERI VORTAC	JHW VOR to ERI Int via JHW VOR 266 rad	4,500	17,5
V-43	YNG VOR to ERI VORTAC	YNG VOR to ERI int via YNG VOR 027 rad	3,500	17,5
V-184	TDT VORTAC to VORTAC	TDT VORTAC to ERI Int via TDT VORTAC 301 rad	3,500	17,5

Existing Reporting Points	Temporary Reporting Points	MR
ERI VORTAC	Tmpry ERI Int: JFN VORTAC 057 rad and TDT VORTAC 301 rad	3,5
Linesville Int	YNG VOR 027 rad, JFN VOR 098 rad, and TDT VORTAC 279 rad	3,5
Sunfish Int	None	
Blue Pike Int	None	
Sturgeon Int	None	
Harborcreek Int	None	
Hammatt Int	DKK VOR 245 rad and TDT VORTAC 325 rad	3,0
Lawrence Int	BFD VOR 288 rad and TDT VORTAC 330 rad	4,0
Wattsburg Int	JHW VOR 266 rad and TDT VORTAC 325 rad	4,0
Catfish Int	ERI RBn 002 Brg and DKK VOR 273 rad	3,5

WASHINGTON

PORT ANGELES "CLM" VOR SHUTDOWN

Jan 18, VOR will be shutdown until aprxly Jan 22. For substitute route structure during shutdown use the following:

Low Altitude Airways

Airways	Existing Airways	Substitute Routes	MEA	MA
V-4 V-287	SEA VOR to Jamestown Int	SEA VOR to Jamestown Int via SEA VOR 300 rad	7,000	17,5
	Jamestown Int to EBY RBn	None		

Existing Reporting Points	Temporary Reporting Points	MR
CLM VOR	None	
Jamestown Int	Dungeness Fan Marker	5,0

WISCONSIN

GREEN BAY "GRB" VOR SHUTDOWN

...out Feb 15 VOR will be shutdown until aprxly Feb 19. For substitute ...ute structures during shutdown use the following:

Low Altitude

...ways	Existing Airways	Substitute Routes	MEA	MAA
7...	MNM VOR to GRB VOR	MNM VOR to GRB Int. via MNM VOR 212 rad	4,200	17,500
	Calvary Int. to GRB VOR	Calvary Int. to GRB Int. via MKE VOR 002 rad	7,000	17,500
8....	OSH VOR to GRB VOR	OSH VOR to GRB Int. via OSH VOR 023 rad	4,200	17,500
35...	STE VOR to GRB VOR	STE VOR to GRB Int. via STE VOR 086 rad	4,200	17,500
	MKG VOR to GRB VOR	None		
38...	Wittenberg Int. to GRB VOR	Wittenberg Int. to GRB Int. via AUW VOR 104 rad	4,400	17,500
	HIC VOR to GRB VOR	None		
57..	RHI VOR to GRB VOR	RHI VOR to GRB Int. via RHI VOR 139 rad	8,200	13,500
	GRB VOR to Wall Eye Int	None		
59..	GRB VOR to MKG VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
3 VOR.....	OSH VOR 023 rad and and STE VOR 086 rad	4,200
Chilton Int.	MKE VOk 002 rad and OSH VOR 066 rad	7,000
Sherwood Int	MKE VOR 002 rad and OSH VOR 041 rad	7,000
Little Chute Int	OSH VOR 023 rad and STE VOR VOR 104 rad	4,200
Bear Creek Int	STE VOR 086 rad and OSH VOR 356 rad	4,200
Wolf Int ..	AUW VOR 104 rad and OSH VOR 359 rad	4,400
Cecil Int. .	RHI VOR 139 rad and MNM VOR 240 rad	8,200
Pine Grove Int.	None	
Nero Int ..	None	
Nicollet Int	None	
Larrabee Int	None	
Franklin Int .	None	
Collins Ibt ...	None	
Waffle Int	None	
Big Falls Int	None	

High Altitude

Airways	Existing Airways	Substitute Routes
J-101..	SSM VOR to GRB VOR	None
	MKE VOR to GRB VOR	None
J-38 ..	ECK VOR to GRB VOR	None
	DLH VOR to GRB VOR	None
J-106..	MSP VOR to GRB VOR	None

Existing Reporting Point	Temporary Reporting Point	MRA
GRB VOR.....	None	

CHANGES/ADDITIONS TO AIM

PAGE I–4

10. The list of airborne check points and ground check points is published in Section III. VOT's are included with the airport information in Section IV A.

December 1964

PAGE I–5:

VOR Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

1. The terms VOR, VORTAC, and TACAN are, operationally, general terms covering the VHF and UHF omnidirectional bearing type of facilities without regard to the fact that the power, the frequency protected area, the equipment configuration, and operational requirements may vary between the facilities at different locations.
2. The table below lists the intended operational service volume or volumes of the various categories of VOR's, VORTAC'S, and TACAN's. Below 18,000 feet msl, the operational service volume of the H class facility has been limited to the L class service volume due to signal coverage characteristics of VHF and UHF facilities at the lower altitudes. T class facilities provide terminal service at locations where it is not practicable to provide L class frequency protection. Normal signal coverage and interference free service may be expected within the operational service volume unless specific facility restrictions have been imposed. Use of these facilities for IFR operations outside of the operational service volume without additional flight inspection is not intended and may result in undependable or inadequate indications in the cockpit.

Class of VOR, VORTAC, or TACAN	Operational Service Volume
T (Terminal)	25 nmi up to 12,000′ msl
L (Low altitude)	40 nmi up to 18,000′ msl
H (High altitude)	40 nmi up to 18,000′ msl 130 nmi from 18,000′ msl 45,000′ msl 100 nmi above 45,000′ msl

December 1964

PAGE I–36:

Under Vertigo, delete last sentence, "If the beacon ------ etc".

December 1964

PAGE II–3—PARAGRAPH 3. DIRECT FLIGHTS.

b. The azimuth feature of VOR aids and the azimuth and distance (DME) features of VORTAC/TACAN aids are assigned certain frequency protected areas of airspace which are intended for application to established airway and route use, and to provide guidance for planning flights outside of established airways or routes. These areas of airspace are expressed in terms of cylindrical service volumes of specified dimensions called "class limits" or "categories." An operational service volume has been established for each class in which adequate signal coverage and frequency protection can be assured. To facilitate use of VOR, VORTAC or TACAN aids, consistent with their operational service volume limits, pilot use of such aids for defining a direct route of flight in controlled airspace should not exceed the following:

December 1964

PAGE II–8:

Under 3. STANDARD INSTRUMENT DEPARTURES (SIDs) add: paragraph d. "It will be the responsibility of each pilot to accept or refuse the clearance issued." Change present d. to e.

December 1964

PAGE II–16:

HOLDING—Revise paragraph 6, last sentence to read: "Where the fix is associated with an instrument approach, and timed approaches are in effect, a procedure turn shall not be executed unless the pilot advises ATC since aircraft holding are expected to proceed inbound on final approach directly from the holding pattern when approach clearance is received."

December 1964

PAGE II–18:

AIRCRAFT CLIMBING/DESCENDING Add new paragraph:

d. If it is necessary during a climb or descent to level off at an intermediary altitude, advise ATC

December 1964

PAGE II–19—MILITARY CLIMB CORRIDOR RESTRICTED AIRSPACE

The procedures in this paragraph become effective on January 7, 1965.

Change title to read: "RESTRICTED AIRSPACE"

December 1964

PAGE II–20:

COMMUNICATIONS, 1. g., after the example add the following:

NOTE–Pilots in Alaska, Hawaii, U.S. Territories and possessions, operating at or above flight level 240 and who have requested and received a clearance specifying "VFR Conditions On Top" are requested to report their "actual" altitude as part of their IFR position reporting procedure and advise ATC prior to making an altitude change.

December 1964

PAGE II–22:

Add the following:

SPECIAL USE AIRSPACE

It is mandatory that pilots avoid unauthorized operation in prohibited areas and restricted areas and extremely important that warning areas not be penetrated unless prior approval has been obtained. The following explanation is to impress on all concerned the purpose of such areas and indicate that hazards are presented by activities within restricted and warning areas. Caution and intensive student jet training areas contain activity of interest to the nonparticipating pilot. The operations conducted within these areas are not considered hazardous and consist primarily of high volume military training. These five types of airspace are depicted on aeronautical charts published by the Coast and Geodetic Survey.

a. **Prohibited Area.** Airpsace identified by an area on the surface of the earth within which the flight of aircraft is prohibited. Such areas are established for security or other reasons associated with the national welfare. These areas are published in the Federal Register.

b. **Restricted Area.** Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Activities within these areas must be confined because of their nature or limitations imposed upon aircraft operations that are not a part of those activities or both. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft. Penetration of restricted areas during periods of activity may be extremely hazardous to the aircraft and its occupants. Restricted areas are published in the Federal Register and constitute Part 73 of the Federal Aviation Regulations.

c. **Warning Area.** Warning areas are established beyond the three-mile limit. They are areas of defined dimensions established to contain both visible and invisible hazards to nonparticipating aircraft. Though the activities within the warning areas are as hazardous as those contained within restricted areas, warning areas cannot be legally designated because they are over international waters. Penetration of warning areas during periods of activity may be hazardous to the aircraft and its occupants. Official descriptions of warning areas may be obtained upon request to the FAA, Washington, D.C.

d. **Caution Area.** Areas of defined dimensions within which the military training activities conducted, though not hazardous, are of interest to nonparticipating pilots. There are no restrictions applicable to flight within these areas. Information concerning these areas may be obtained upon request to the FAA, Washington, D.C.

e. **Intensive Student Jet Training Area (ISJTA).** These areas are depicted on aeronautical charts to identify airspace utilized by the military for the intensive training of student jet pilots. There is no restriction to VFR flight in these areas. Information on these training areas may be obtained from any FSS within 100 miles of the area.

December 1964

PAGE II–25:

Change the material under RADAR TRAFFIC INFORMATION SERVICE, subparagraph c. "Issuance of Traffic Information" as follows:

c. **Issuance of Traffic Information**—Traffic information will include the following concerning a target which may constitute traffic for an aircraft that is:

(1) Radar identified:
  (a) Azimuth from the aircraft in terms of the twelve hour clock;
  (b) Distance from the aircraft in nautical miles;
  (c) Direction in which the target is proceeding; and
  (d) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffic; i.e., slow or fast moving.

  Example:
  Traffic 10 o'clock, 3 miles, west-bound (type aircraft and altitude, if known or relative speed of the observed traffic). The pilot may, upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller.

(2) Not radar identified:
  (a) Distance and direction with respect to a fix;
  (b) Direction in which the target is proceeding; and
  (c) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffi, i.e., slow or fast moving.

  Example:
  Traffic 8 miles out of the airport northeast-bound, (type aircraft and altitude or relative speed of the observed traffic).

December 1964

PAGE II–25:

Change the material under TERMINAL RADAR SERVICE as follows:

TERMINAL RADAR SERVICE

(Provided in designated Terminal Radar Service Areas, TRSA).

1. This service has been implemented at certain terminal locations and is provided on a voluntary pilot participating basis.
2. The purpose of this service is to provide, to the extent possible separation between all participating VFR aircraft and all IFR aircraft operating within the airspace defined as the TRSA.
3. The TRSA is primarily a radar environment and control is predicated thereon, however, this does not preclude application of nonradar separation when required or deemed appropriate. During weather conditions equal to or better than basic VFR:
   (a) 500 feet vertical separation may be used between VFR aircraft and/or between VFR and IFR aircraft.
   (b) Visual separation may be used between VFR aircraft and/or between VFR and IFR aircraft when the pilot sees the other aircraft and reports he will maintain visual separation from it.
4. Within the TRSA traffic information on observed but unidentified targets will, to the extent possible, be provided all IFR and participating VFR aircraft and such aircraft, at the request of the pilot, will be vectored to provide standard radar separation from the observed traffic, insofar as possible.

December 1964

● **PAGE III–25—STANDARD INSTRUMENT DEPARTURES (SIDS)**

Delete Bradley Field, Windsor Locks, Conn. and substitute the following:

CONNECTICUT

Windsor Locks

Effective Jan. 21, 1965

Narrative form only

AVON TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via Poughkeepsie VOR 089 radial to Poughkeepsie VOR. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Madison VOR 348 radial at or below 6,000 feet. Cross Bridgeport VOR 357 radial at and maintain (as assigned by ATC), then via (assigned route).

STAFFORD TWO DEPARTURE

Departure headings from all runways will be assigned prior to take-off. Via direct to V146, thence via V146 to Putnam VORTAC; thence via Putnam VORTAC 100° radial to V16, V16 to Millis Intersection. Maintain at or below 3,000 feet for 3 minutes after departure; Cross Putnam VORTAC at and maintain (as assigned by ATC). Thence via (assigned route).

MADISON TWO DEPARTURE

Departure headings from all runways will be assigne prior to take-off. Via 360° radial Hartford VOR Hartford VOR; thence direct Madison VOR; then V475 to Deer Park VORTAC. Maintain at or belo 3,000 feet for 3 minutes after departure; Cross Madis VOR at and maintain (as assigned by ATC), thence v (assigned route).

HARTFORD TWO DEPARTURE

Departure headings from all runways will be assig prior to take-off. Via direct Hartford VOR. Hartfo VOR 258 radial to Yale Intersection. Maintain at below 3,000 feet for 3 minutes after departure. Cr Madison VOR 360 radial at or below 4,000 feet. Cr Yale Intersection at and maintain (as assigned by AT then via (assigned route).

Concurrently cancel Avon One, Stafford One, Madis One, Hartford One Departures.

January 19

PAGE II–26.

Effective Jan 7, 1965 revise the material under AI PROACH CONTROL a. Radar Approach Control, su paragraphs (2) and (3) and add new (4) as follow

(2) IFR aircraft may be descended to the mi mum vectoring altitude, vectored to a positio in the airport traffic pattern and cleared fo a "visual approach" whenever the reporte ceiling is at least 500 feet above the minimu vectoring altitude and the visibility is thre miles or more. With a "visual approach clearance, the pilot operating on an IFI flight plan may deviate from the prescrib instrument aproach procedure and proceed the airport with visual reference to th surface, maintaining VFR conditions at a times. This procedure will afford a mor expeditious service to arriving aircraft an preclude unnecessary vectoring in the fina approach course of a published instrume approach procedure.

(3) Clearance for a visual approach is issue when:

(a) preceding aircraft reports sighting th airport and the tower controller has th aircraft in sight, or

(b) An aircraft is positioned behind a pr ceding aircraft and the pilot of the su ceeding aircraft reports sighting tha aircraft.

(4) Radar separation is provided from any pr ceding IFR aircraft until the clearance for visual approach is issued. Pilots cleared for a visual approach are reminded to adv ATC whenever they are unable to contin following the preceding aircraft and/or the encounter less than basic VFR weather co ditions. Radar service will be terminate when the pilot is told to contact the towe The tower will assign a landing sequen number.

December 1964

E II–30.

'aragraph 4. Change the last line to read "above the ort traffic area."

December 1964

E II–51

dd the following:

EPORTING AIRCRAFT ACCIDENTS, INFLIGHT HAZARDS AND OVERDUE AIRCRAFT

il Aeronautics Board, Safety Investigation Regula-s, Part 320 (in part)).

OTIFICATION

The operator of an aircraft shall immediately, and he most expeditious means available, notify the Civil onautics Board, Bureau of Safety Field Office near-the accident or occurrence when:

(1) As a result of the operation of an aircraft, any on (occupant or nonoccupant) receives fatal or seri-injury or any aircraft receives substantial damage;
(2) Aircraft collide in flight;
(3) The following inflight hazards are experienced:
(a) Fire;
(b) Rapid decompression requiring emergency ac-:
(c) Unwanted or asymmetrical thrust reversal;
(d) Flight control system malfunction or failure;
(e) Inability of any required flight crew member erform his normal flight duties as a result of injury ilness.
(f) An aircraft is overdue and is believed to have involved in an accident.

The following information is required if available:
(1) Location;
(2) Date;
(3) Time;
(4) Aircraft make, model, and registration number nationality;
(5) Names of operator and crew;
(6) Number of persons involved;
(7) Injuries of each person;
(8) Weather conditions;

EPORTS

The operator shall file a report on CAB Form 453 54, available from the Civil Aeronautics Board Field es, the Civil Aeronautics Board, Washington, D.C., the Federal Aviation Agency Flight Standards Dis-t Office:
(1) Within ten (10) days after an occurrence for ch notification is required in 1 (a) and (b) above;
(2) When, after seven (7) days, an overdue aircraft till missing;
(3) Upon request of an authorized representative of Civil Aeronautics Board;

. Each crew member, if physically able at the time report is submitted, shall attach thereto a statement ing forth the facts, conditions and circumstances re-ng to the accident or occurrence as they appear to to the best of his knowledge and belief. If the member is incapacitated, he shall submit the state-t as soon as he is physically able.

WHERE TO FILE REPORTS

. The operator of an aircraft shall file with the Field ce of the Civil Aeronautics Board nearest the acci-dent or occurrence any report required by this section involving:

(1) Aircraft having a maximum take-off weight of more than 12,500 pounds or rotorcraft regardless of weight.

(2) Aircraft having a maximum take-off weight of 12,500 pounds or less operated by an air carrier certificated to engage in air transportation in the State of Alaska; and

(3) Aircraft, regardless of maximum take-off weight, where fatal injuries have occurred to any occupant of such aircraft.

b. The operator of an aircraft shall file with the FAA Flight Standards District Office nearest the accident or occurrence any report required by this section involving fixed-wing aircraft with a maximum take-off weight of 12,500 pounds or less except reports which are required to be filed with the Board pursuant to paragraph A above. FAA Flight Standards District Offices are listed on last page of Section II in Airman's Information Manual.

c. Civil Aeronautics Board field Safety Office addresses and telephone numbers are **Anchorage:** P.O. Box 2219, Anchorage, Alaska; BRoadway 2–7001. **Chicago:** Suite 206, 6525 North Avenue, Oak Park, Ill.; VIllage 8-9565. **Denver:** 1549 Emporia Street, Auroa, Colo.; EMpire 6-8249. **Fort Worth:** 100 North University Drive, University Plaza Building, Fort Worth 7, Tex.; EDison 6-2463. **Kansas City:** 912 East 63d Street, Kansas City, Mo. 64110; EMerson 3-2220 and 3-2221. **Los Angeles:** Los Angeles International Airport, 5820 Avion Drive, Room 228, Los Angeles 45, Calif.; SPring 6-0117. **Miami:** P.O. Box 48-0631, Miami International Airport, Miami 48, Fla.; TUxedo 5-2445. **New York:** Federal Building, Room 101, New York International Airport, Jamacia, Long Island, New York; 995–3333. **Oakland:** P.O. Box 2386, Oakland Airport Station, Oakland 14, Calif.; LOckhaven 8-1290. **Seattle:** Room 202, Administration Building, King County Airport, Seattle 8, Wash.; PArkway 3-9474.

January 1965

PAGE II–51:

COAST GUARD RESCUE COORDINATION CENTERS New Orleans, La. change telephone number from JA 2-9103 to: 527–6225.

December 1964

● **PAGE III—65**

Add Chart Corrections:

CHART CORRECTIONS

C & GS Enroute Low Altitude Charts L–5/L–6 issued with charts effective 7 Jan 1965 are incorrectly dated 10 Dec 1964. All airspace information on these two charts is correctly depicted current as of 7 Jan 1965. Charts are effective until 4 Feb 1965.

January 1965

● **PAGE III–82—Change Oil Burner Route "BEEF EATER"**

Revise the VFR and Contour paragraph line 8, change 500' to read 800'.

January 1965

● **PAGE III–83 Add New Oil Burner Route**

KANSAS/NEBRASKA/SOUTH DAKOTA

BULL RING

Effective March 1 thru August 27, 1965

Aircraft shall cross the Sioux Falls VORTAC 269/55 (43°46′N, 98°02′W) at FL 230 or as assigned by ARTC; then descend direct so as to cross 43°02′N, 99°06′W at 8,000′ MSL; then at 8,000′ MSL direct to 42°54′N, 99°-17′W; then descend direct so as to cross 42°35′N, 99°31′W at 4,000′ MSL (Low Level Entry Point); then at 4,000′ MSL direct to 40°41′N, 99°38′W; then at 4,000′ MSL direct to 40°00′N, 100°10′W; then at 4,200′ MSL direct to 39°26′N, 100°36′W; then at 4,200′ MSL direct to 39°-13′N, 100°37′W; then at 4,100′ MSL direct to the entry point of the bomb run corridor at 38°50′N, 100°40′W.

Short Look and Lay Down—After passing 38°50′N, 100°-40′W aircraft shall maintain between 3,000′ MSL and 6,000′ MSL through the bomb run corridor (5 SM either side of centerline from 38°50′N, 100°40′W to 38°23′N, 100°43′W), the minimum IFR altitude through the bomb run corridor is 4,100′ MSL. After exiting the route at 38°23′N, 100°43′W, aircraft shall turn left climbing to 38°20′N, 100°26′W; then continue climb direct so as to cross 38°31′N, 100°24′W at 16,000′ MSL; then at 16,000′ MSL direct 38°40′N, 100°23′W; then at 16,000′ MSL turn left to 38°41′N, 100°41′W; then climb direct to the Dodge City, Kansas, VOR crossing 38°19′N, 100°24′W at FL 230; then at FL 230 to the Dodge City VOR.

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall after passing 38°23′N, 100°43′W, turn left and climb so as to cross 38°20′N, 100°26′W at 8,000′ MSL; then at 8,000′ MSL direct 39°21′N, 99°30′W; then at 8,000′ MSL turn left to 39°31′N, 99°34′W then at 8,000′ MSL direct 39°31′N, 100°12′W; then start descent direct so as to cross 39°31′N, 100°28′ at 4,200′ MSL; then turn left at 4,200′ MSL to 39°26′N, 100°36′W; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000′; visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 42°25′N, 99°32′W to 41°35′N, 99°35′W and from 39°13′N, 100°37′W to 38°-23′N, 100°43′W. During daylight hours, some VFR operations will be flown 500′ above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800′ above the terrain. The lower VFR altitude on the chart is the minimum altitude that will be reached during daylight hours.

Route Width—The route width is reduced to 5 SM on each side of centerline from 40°53′N, 99°38′W to 39°-35′N, 100°30′W.

Hours of Operation—24 hours daily, 7 days a week.

January 1965

● **PAGE III–88—Change Oil Burner Route**

"LITTLE SATIN"

Revise the VFR and Contour paragraph line 7, change 500′ to read 800′.

January 1965

● **PAGE III–95 Add Oil Burner Route**

ARIZONA/COLORADO/NEW MEXICO/UTAH

SLEEPY EYE

(Formerly "Main Gate")

Effective February 4, 1965

Aircraft shall cross 35°34′N, 107°24′W (Albuquerque VORTAC 305/43 DME fix) at FL 250 or assigned by the ARTCC; then descend direct to cross 35°42′N, 107°32′W at FL 210; then descend direct to cross 35°57′N, 107°51′W at 17,000′ MSL; then maintain 17,000′ MSL direct 36°09′N, 108°04′W; then descend direct to cross 36°16′N, 108°12′W at 15,000′ MSL; then 15,000′ MSL direct 36°58′N, 109°00′W (low level entry point); then descend direct to cross 36°58′N, 109°10′W at 13,000′ MSL; then 13,000′ MSL direct 36°58′N, 111°42′W then descend direct to cross 36°58′N, 112°00′W at 11,000′ MSL; then direct to cross 36°58′N, 112°29′W at or below 11,000′ MSL.

Short Look and Lay Down—After passing 36°58′N, 112°29′W aircraft shall operate between 9,000′ and 11,000′ MSL through the bomb run corridor (5 SM either side of centerline from 36°58′N, 112°29′W to 36°58′N, 113°51′W). After exiting the route at 36°58′N, 113°51′W aircraft shall turn left climbing to cross 36°53′N, 114°00′W at 11,000′ MSL; then maintain 11,000′ MSL direct to 36°44′N, 113°53′W; then climb via direct to cross 36°30′N, 113°42′W at or below 17,000′ MSL (reporting point "SLEEPY EYE" #1); then direct to cross 36°58′N, 113°36′W (PGS 336/21 DME fix) at FL 230; then intercept and proceed via Peach Springs 336 radial to Peach Springs (35°37′30″N, 113°32′W).

Re-Entry—After completing the initial bomb run, aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 36°58′N, 113°51′W turn left via direct to cross 36°53′N, 114°00′W at 11,000′ MSL; then 11,000′ MSL direct 36°44′N, 113°53′W; then 11,000′ MSL direct 36°44′N, 112°29′W; then turn direct to cross 36°58′N, 112°29′W at or below 11,000′ MSL; thence via published route.

Alternate Entry—Aircraft shall cross the Tuba City Arizona VOR (36°07′30″N, 111°16′W) (Reporting Point) at FL 240 or as asigned by the ARTCC; then maintain FL 240 or assigned altitude via Tuba City 091° radial until 23 miles north (36°28′N, 111°04′W); then descend direct to cross 36°58′N, 111°07′W at 13,000′ MSL; thence via published route.

Hours of Operation—24 hours daily, 7 days a week.

January 19

● **PAGE III–96—Change Oil Burner Route**

"WALNUT GROVE"

First paragraph, lines 5, 6, 7: Delete "then descend direct so as to cross 36°37′N, 81°06′W at or below 14,000′ MSL;"

January 19

● **PAGE IV–42—Change as follows:**

Second column, second entry under state of Idaho move MACKAY 1 SE to page IV–45 second column 5th entry from bottom and substitute MACKAY 1 SE for AMERICAN FALLS, AMERICAN FALLS 2 NE. The latter moves to page IV–42 second column, second line under state of IDAHO.

January 19

ion II—Add as last page:

GENERAL

FLIGHT STANDARDS SERVICE DISTRICT OFFICES

Office	Phone No.
EASTERN REGION	
General Aviation	
›any, N.Y	UN 9-7411
entown, Pa	CO 4-2431
ntown, Pa	CO 4-2888
ltimore, Md	SO 1-2610
cinnati, Ohio	EA 1-7171
veland, Ohio	WI 1-3030
umbus, Ohio	BE 7-3741
rrisburg, Pa	CE 4-0193
denhurst, N.Y	TU 8-1440
isville, Ky	GL 1-2930
rwood, Mass	762-2436
ladelphia, Pa	OR 3-0250
tsburgh, Pa	HO 1-2726
tsburgh, Pa	HO 1-7800
tland, Maine	SP 4-1452
hmond, Va	RE 7-8256
chester, N.Y	BE 5-3438
erboro, N.J	AT 8-1745
shington, D.C	NA 8-1076
stfield, Mass	LO 8-8691
Air Carrier	
ston, Mass	LO 7-1224
wild, L.I., N.Y	995-3709
Guardia, L.I., N.Y	HA 6-9729
Guardia, L.I., N.Y	HA 6-9730
vark, N.J	MA 4-2044
sburgh, Pa	SP 1-2868
ca, N.Y	RE 6-6981
shington, D.C	NA 8-1076
SOUTHERN REGION	
General Aviation	
anta, Ga	DI 4-3033
mingham, Ala	592-6371
rlotte, N.C	392-3214
umbia, S.C	794-3789
kson, Miss	366-0305
ksonville, Fla	EL 4-7111
mphis, Tenn	948-7701
mi, Fla	888-8474
shville, Tenn	AL 5-7791
eigh, N.C	TE 2-6160
Petersburg, Fla	HE 6-9072

Office	Phone No.
SOUTHERN REGION—Con't.	
Air Carrier	
Atlanta, Ga	522-4121 ex 7261
Miami, Fla	888 8474
Nashville, Tenn	244 2254
Winston-Salem, N.C	PA 5 0601
San Juan, P.R	791-0374
SOUTHWEST REGION	
General Aviation	
Albuquerque, N. Mex	247-0156
Amarillo, Tex	DR 6-9481
Dallas, Tex	FL 2-8453
El Paso	778-6389
Ft. Worth, Tex	MA 4-1184
Houston, Tex	OL 4-6557
Little Rock, Ark	FR 2-3437
Lubbock, Tex	PO 2-0335
New Orleans, La	WH 4-6706
Oklahoma City, Okla	SU 9-5220
San Antonio, Tex	TA 6-2355
Shreveport, La	422-8379
Air Carrier	
Dallas, Tex	FL 7-8297
Ft. Worth, Tex	BU 3-1556
Houston, Tex	MI 5-6628
San Antonio, Tex	TA 4-6373
CENTRAL REGION	
General Aviation	
Billings, Mont	245-7910
Des Moines, Iowa	285-1541
Fargo, N.D	232-8949
Grand Rapids, Mich	CH 1-0155
Helena, Mont	442-4230
Indianapolis, Ind	CH 4-2473
Kansas City, Kans	AT 1-3491
Lincoln, Nebr	434-5949
Milwaukee, Wis	SH 4-9202
Minneapolis, Minn	PA 9-7301
Rapid City, S.D	FI 2-3738
St. Louis, Mo	PE 1-0930
South Bend, Ind	CE 2-5843
Springfield, Ill	523-3657
West Chicago, Ill	584-4490
Wichita, Kans	WH 3-3244
Ypsilanti, Mich	483-1226

Office	Phone No.
CENTRAL REGION—Con't.	
Air Carrier	
Chicago, Ill	827-6623
Des Plains, Ill	827-6623
Indianapolis, Ind	CH 1-9296
Kansas City, Kans	HA 1-0135
St. Paul, Minn	PA 1-1653
St. Louis, Mo	PE 1-6800
Ypsilanti, Mich	482-7724
WESTERN REGION	
General Aviation	
Boise, Idaho	342-2861
Cheyenne, Wyo	634-2652
Denver, Colo	GE 3-7104
Fresno, Calif	CH 1-6056
Long Beach, Calif	HA 1-8287
Oakland, Calif	NE 8-5711
Ontario, Calif	YU 4-2411
Phoenix, Ariz	275-6276
Port'and, Oreg	AT 8-5846
Reno, Nev	FA 2-3790
Sacramento, Calif	GA 8-9614
Salt Lake City, Utah	524-5194
San Diego, Calif	CY 5-3112
Santa Monica, Calif	EX 1-6701
Seattle, Wash	PA 3-5600
Spokane, Wash	KE 5-1601
Van Nuys, Calif	ST 5-8624
Air Carrier	
Burbank, Calif	875-0410
Denver, Colo	DE 3-5475
Los Angeles, Calif	OR 0-7722
Los Angeles, Calif	SP 6-0102
San Francisco, Calif	697-6900
Seattle, Wash	PA 3-5604
ALASKAN REGION	
General Aviation	
Anchorage, Alaska	BR 8-5401
Fairbanks, Alaska	6-5122
Juneau, Alaska	JU 6-3755
Air Carrier	
Anchorage, Alaska	BR 4-1965
Fairbanks, Alaska	GL 6-5122
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AIRMAN'S INFORMATION MANUAL

NOTICES TO AIRMEN

ATTENTION
TICE TO SUBSCRIBERS"
ASIDE OF COVER

SECTION III A

18 FEBRUARY 1965

FEDERAL AVIATION AGENCY

SPECIAL NOTICE

Because of many requests, VOR, LF radio beacons and ranges, and ILS compass locators (LOM) data will be added to Section IVA of the AIM in a subsequent issue.

NOTICE TO SUBSCRIBERS

Many comments have been received from you, the subscribers, containing constructive criticism and offering many fine suggestions for improvement of the Airman's Information Manual (AIM). We appreciate your interest and initiative and assure you that we will evaluate each comment received for possible application to the manual. Each suggestion that furthers the purpose of the AIM and that is feasible on a cost vs. benefit basis, will be incorporated as soon as possible. In this regard, we must remember that each new feature added that increases the size of the manual and related production costs may result in increased subscription cost to be borne by you, the user. We, therefore, ask that you evaluate your suggestions on the basis of "need to know" vs "nice to have" and what you are willing to pay for. Also, information of value to you in your office or business that cannot be identified as having operational value to pilots, cannot be published.

Many of your comments reflect shortcomings on our part in explaining the innovations of the AIM. Some of you requested that the Air Navigation Radio Aids (ANRA) Section of the Airman's Guide be included in the AIM, as you constantly referred to this section for VOR frequency information, etc. It is obvious by your comments that this is one of the areas in which our explanation fell short and we will now try to rectify this situation.

In initial development of the manual, the main purpose has been that the AIM would be developed as a pilot's operational manual containing information that would supplement the data shown on charts. The AIM would contain terminal and preflight planning data, while charts would provide enroute data, to the fullest extent possible, to minimize the need to refer to other sources while enroute. This concept was proposed by you, the users. The next objective was to reduce duplication between charts and the AIM data as much as possible. This was to keep the cost of the AIM as low as possible and to establish a true relationship between the AIM and the charts.

Next to three-hole punching the Airman's Guide, the other most often asked for changes in the Airguide were enlargement of the type size (print) and consolidation of the many separate tabulations that had to be consulted to adequately flight plan. Nearly every comment on this latter item suggested all information in each tabulation be combined into a single listing of all data for each airport. This has been done as is reflected in Sections IV and IV-A. All items contained in the Airman's Guide ANRA Section have been included in the AIM, except for VOR and LF radio range information. For further clarification, the following tabulation indicates items, by title, contained in the Airman's Guide and their location in the AIM:

Airman's Guide	*AIM*
Radar Services (ASR, PAR)	Section IV-A (by airport)
ILS	Section IV-A (by airport)
Control Tower	Section IV-A (by airport)
VHF/DF	Section IV-A (by airport)
Flight Service Stations (FSS)	Section IV-A (complete listing)
ARTC Center Frequencies	Section IV-A (complete listing)
VOR Radiated Test Patterns (VOT)	Section IV-A (by airport)
Transponder Beacons (BCN)	Section IV-A (by airport)

(Included in Section IV-A of the AIM, but not previously provided in Airguide, are identification of voice call and specific frequencies assigned to Approach Control, Departure Control, Ground Control, Clearance Delivery, Traffic Information Service, VFR Advisory Service, etc.).

Therefore, of all former ANRA data, only the VOR and LF radio range information has not been retained in the AIM. Reasons for this decision are as follows:

1. Enroute information should be published on charts, to the extent possible. Radio ranges fall in this category of enroute aids (approach and letdown use). ranges is provided for by Instrument Approach Charts; therefore, charts will be the primary user source for this information.

a. The section of the AIM (IV-A) containing facility data is reproduced every 28 days on the identical cycle (effective date) as the Enroute Charts. Changes to NAVAIDs are applied directly to each revision of Enroute Charts for use of the IFR pilot rather than published in AIM. Updating of NAVAID information on the VFR pilots charts was provided for by the addition of the Visual Navigation Chart Bulletin in Section II (III-34) of the AIM. This Section, which is also published every 28 days, will indicate, cumulatively, all changes to the NAVAIDS, etc., shown on the current edition of each Sectional Chart, until the information is published on the next issue of the particular chart. This user requested feature provides the VFR pilot with the same cycle of currency of information (28 days) as the IFR pilot.

2. Biweekly Notices to Airmen, Section III-A of the AIM, and teletype NOTAMs update both the Enroute Charts and the Visual Navigation Chart Bulletin between AIM publication dates.

3. Application of the foregoing concept has, we believe, provided the user with current and correct NAVAID data in a more desirable operationally usable form.

In developing this manual, the FAA has attempted to provide for all user identified operational requirements to the fullest extent possible. It must be recognized that FAA has obligations to all aviation and that some requirements applicable to a limited segment of aviation cannot fairly be accommodated at the expense (cost and volume) of all others.

The AIM will be in a test and evaluation status for the next two years and will be revised to accommodate new and changing evaluated user needs. The AIM is published for the benefit of you, the user, and is subject to change in accordance with your identified needs. However, we ask that you give this new publication a fair evaluation by becoming familiar with all its features and uses. Following this period of indoctrination please tell us what you want changed and what you want to stay as is.

Section III—A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the M. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or re-ed Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

TE: Data printed entirely in bold face type are considered permt and will usually be cited only once. Such information ld be noted on charts and records. Temporary information is inously cited until the condition is no longer in effect.

TE: Data is arranged in alphabetical order by State (and within State by City or locality).

W OR REVISED DATA: New or revised data are indicated by erlining the first line of the affected item. The new information ot necessarily limited to the underlined portion, which is used to attract attention to the new insert.

ALABAMA

YOU LA BATRE, BAY VIEW ARPT: Paved 3000' rag strip 75'S and parallel to turf rnwy. P-line each de of drag strip and wire across strip 75' from E end. /S turf rnwy under constr, covered with stumps not be used for acft operns.

OOKWOOD RDO: About March 4, VOR will be msnd. Ident: "BWA." Freq: 111.0 mc Class: L–VOR. Lctd at lat 33°14'22", long. 87°14'35". Variation 4°E. Monitoring category 1. Controlled by Birmingham FSS.

THERINE, MARTIN FLD: Clsd until spring.

ETTE MUN ARPT: 300' (853' MSL) lgtd tmpry microwave twr constrd 12.5 nmi SSW (195°T) at lat 3°30'56", long 87°53'. Will be removed June 1965.

RUCKER: Extsv IFR and VFR student trng conucted in area bounded by V–115 W, V–241 S, V–70 N nd V-241 E. Normal hrs of operns 0600–2400 Mon-Fri om surface to 10,000'.

SMITH MUN ARPT: 319' (846' MSL) lgtd antenna twr constrd nmi NNE (030°T) at Lat 35°26'17" Long 94°17'09".

MA CRAIG AFB: Extsv jet student trng conducted ring dalgt hrs and occasional ngts Mon-Fri from surce to 6000' MSL. Craig ctl zone saturated dalgt hrs to 00' MSL during student trng. VFR acft should conct Craig twr on 236.6 or 119.5 mc for tfc advisories. raig Twr is avbl for lndg advisories for acft lndg Seld. Clsd excp for ofl bus. clsd to transit aero club acft.

'ALOOSA, VAN DE GRAAFF ARPT: 240' (462' SL) lgtd chimney being constrd 3 nmi E (097° T) t lat 33°12'49, long. 87°32'45".

ARIZONA

SE ARPT: Clsd until aprxly March 1965.

'KEYE MUN ARPT: Clsd February 20 and 21 for ir contest.

CAREFREE ARPT: Ben inop UFN.

FT HUACHUCA: See Yuma Notice.

GILA BEND: See Yuma Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

HORN, WHITEWING RANCH 2 ARPT: Clsd to the public.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hi-density jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3–21 for unknown duration. Usable length lndg and tkof rnwy 12–30 is 2900'.

TACNA ARPT: Rnwy 17–35 permly clsd.

TUCSON, RYAN FLD: All rnwys clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000′ MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307

ARKANSAS

CAMDEN, HARRELL FLD: 350′ (580′ MSL) lgtd twr constrd 5 nmi WSW (252°T) at lat 33°35′41″, long 92°51′33″.

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BURBANK, LOCKHEED AIR TERMINAL TWR: ILS lclzr and glide slope rnwy 7 shutdown until aprxly Mar 5 for mod.

CORNING MUN ARPT: Clsd

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

EL MONTE, LOS ANGELES-EL MONTE ARPT: Efctv Mar 1, 1965 fld will be clsd to the general public.

EVERGREEN RDO: H facility decomsnd.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″; clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; to 36°34′45″, 121°48′35″; 36°35′45″, 121°49′45″; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

HAWTHORNE ARPT: REIL and txwy lgts will be inop 2300–0700 nightly UFN.

HYAMPON ARPT: Clsd UFN due flood.

KLAMATH, McBETH FLD: Clsd for unknown duration due flood damage.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 18[illegible] 230 incl., from 55 miles N Boulder VOR to Los Angeles Salt Lake City boundary. J11 FL 180–230 incl. from [illegible] miles S Bryce VORTAC to Los Angeles/Salt Lake C[illegible] boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: A 90-day test is bei[illegible] conducted by the LAX FSS to evaluate the effectiveness of a new concept in transcribed weather broadcast script. The new concept differs from present procedures in that meteorological and notice to Airmen Data is broadcast as applied to six commonly-traveled routes out of the Los Angeles Metropolitan area. Enroute weather reports follow the weather forecast for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes are spoken. Dissemination continues to be over the Los Angeles "HOMER"; also available by telephone over Sprint 6–1640, Poplar 2–4111, Davis 3–4626 and via a special "Listening-only" interphone circuit which parallels the present "fastline" circuit serving subscribers at Van Nuys Airport, Lockheed Air Terminal in Burbank San Fernando Airport, Whiteman Air Park in Pacoima and Rancho Conejo Airport near Thousand Oaks.

MODESTO CITY-COUNTY ARPT: All pilots must cont[illegible] Stockton Apch Ctl prior to conducting IFR flight operns in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

OXNARD, VENTURA CO ARPT TWR: About March 1[illegible] secondary civil apch ctl freq 122.5 to be decomsnd and replaced by 122.4 mc.

POINT ARGUELLO: Civil acft desiring to transit W-53 call Navy Point Arguello on 122.5 mcs (guard 24 hrs and listen for reply on 124.4 mcs.

RIVERSIDE MUN ARPT: Riverside control zone effv from 0500 to 2130 local time. All pilots must contact March Apch Ctl prior conducting IFR flight operns in the Riverside control zone.

SANTA BARBARA RDO: Width of Naples FM at intercept alt on ILS lclzr crs 3200′ or slightly wider than standard ILS OM. During VOR outages or shutdown for maintenance, flt checks reveal numerous usable signals being emited by acft rdo shops in Los Angeles Area on Santa Barbara VOR freq 114.9 mc are to be disregarded.

VISALIA MUN ARPT: Control zone efctv from 0700–2100 lcl time. All pilots must contact Fresno Apch Ctl prior to conducting IFR flight operns in the control zone.

COLORADO

BROOMFIELD, JEFFERSON CO ARPT: First 3000′ of rnwy 11 plus associated txwy clsd for resurfacing. Usable length both directions 3000′. Ctc unicom for instructions.

DENVER, LOWRY AFB: Ctld firing (demolition) area in use daily except Sat, Sun and holidays 1430–2330Z within a radius of 2500′ of point lctd 104°41′11″W, 39°35′30″N up to 1000′ above surface.

EAGLE: Ctld firing for use of Camp Hale. Area is 1 nmi radius from point lat 39°27′, long 106°19′30″. Max ordinate of firing 15,000′ MSL. Time of use continuous 24 hrs daily. Controlling agency: Commanding General, Fort Carson.

HANOVER RDO: About March 4, H facility will be decomsnd.

EBLO: Controlled Firing (demolition) area for use of he Pueblo Ordnance Depot established within the fol- owing described area: bounded on N by lat 38°22'00"; , long 104°21'22"; S, lat 38°18'00"; W, long 104°22'- 9". Hrs of usage: 0900–1600 MST, Mon-Fri. Max alt 000' above the surface.

CONNECTICUT

TERBURY ARPT: Clsd.

DELAWARE

DLETOWN, SUMMIT AIR PARK: E/W rnwy clsd ntil aprxly April 1965.

DISTRICT OF COLUMBIA

SHINGTON, MT VERNON: Low flying acft requested avoid immediate vcnty Mt. Vernon estate lctd W bank otomac River 10 mi S Washington Natl Arpt.

SHINGTON NATL ARPT: JET POLICY FOR ASHINGTON NATIONAL AIRPORT—Due to nited ground handling facilities at the Washington ational Airport, flight operations of only those turbo- t aircraft that meet the following criteria can be ac- modated: A. Except under emergency conditions, ly approved types of turbojet aircraft of short or edium range (1) are engaged in corporate, private arter or rental type operations, and (2) solely in- nd to utilize the Airport's General Aviation ground rvice facilities. B. Currently approved types of edium and short range turbojet aircraft are as fol- ws: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. ort or medium range turbojet aircraft of types not ted above must secure advance authorization from e Airport Manager. Requests for such authorization ould be made at least 48 hours in advance of the anned aircraft arrival at the Airport. D. Because limited capabilities, the Airport cannot accomodate erations of turbojet aircraft for proficiency or prac- e take-off or landings.

FLORIDA

PS TO HAITI, PUERTO RICO AND DOMINICAN EPUBLIC SPECIAL NOTICE: Non-commercial acft e prohibited from landing in HAITI, unless specific lor authorization is obtained. Seven working days e normally required to obtain clearance. Pilots plan- ng to fly between the mainland and PUERTO RICO ould plan their route to avoid unscheduled emer- ncy fuel stops. Pilots planning to fly to the DO- INICAN REPUBLIC should refer to the International ight Information Manual for complete details.

'OA, CENTRAL BREVARD COUNTY ARPT: Clsd ntil further notice for constr.

MYERS, LEHIGH ACRES WEST ARPT: 995' 89' MSL) lgtd TV twr being constrd 6 nmi SE 9° T) at lat 26°35'09", long 81°37'53".

ANDO, HOEQUIST ARPT: 829' (949' MSL) lgtd T twr being constrd 11 nmi WNW (289°T) at lat °33'31", long 81°35'38".

SACOLA: Intensive student conventional and jet FR trng activity crossing V22 at 11,000' MSL btn avy Saufley (NUN) VOR and Navy Whiting VOR 135 dial: and within a radius of 3 nmi Whiting NAAS d Saufley NAAS at and below 2500' MSL. Sug- sted alter course or altitude to avoid these areas. Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

PERRY-FOLEY ARPT: 500' (545' MSL) lgtd rdo twr being constrd 3 nmi E (080°T) at lat 30°04'19", long 83°31'28".

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft revg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13–31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1900'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R-2915A, R-2915B and R-2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

VENICE RDO: Non federal H facility comsnd. Freq: 209 kc. Lctd at lat 27°04'46", long 82°26'41". Ident: XVN.

WINTER HAVEN, CYPRESS GARDENS ARPT: Clsd to public for unknown duration.

GEORGIA

CAIRO MUN ARPT: Clsd due constrn until aprxly May 1, 1965.

COCHRAN ARPT: Clsd until aprxly May 1965.

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

SAVANNAH, SAFFOLD FLD: 247.5' (253.5' MSL) and 254' (261' MSL) lgtd steel twrs being increased to 254' (261' MSL) and 279' (286' MSL) 4 nmi NNW (317°T) at lat 32°04'47", long 81°02'54".

SAVANNAH SAFFOLD ARPT: Clsd until further notice.

STATESBORO MUN ARPT: 1000' S end rnwy 18–36 to intsxn of rnwy 13–31 clsd for unknown duration. Remaining rnwy rough usable length 4200' both directions.

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.

CAYUSE CREEK USFS ARPT: Skiis only winter months.

COTTONWOOD MUN ARPT: Clsd during winter months.

CRAIGMONT ARPT: Clsd during winter months.

CAMAS COUNTY ARPT: Clsd for unknown duration.

CAREY MUN ARPT: Clsd for unknown duration.
DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.
ELK RIVER ARPT: Clsd aprxly May 1965 due winter months.
HORSE HEAVEN USFS ARPT: Skiis only winter months.
MAGIC RESERVOIR AIR STRIP: Clsd for unknown duration.
MAGEE USFS ARPT: Skiis only winter months.
RICHFIELD, REYNOLDS ARPT: Clsd until May 1965.
SPIRIT LAKE ARPT: Clsd winter months.
VICTOR MUN ARPT (BENNETT FLD): Clsd UFN.

ILLINOIS

CARLINVILLE, JOHN R. KLIMUT ARPT: Clsd to public.
CHICAGO, HINSDALE ARPT: 200' (981' MSL) lgtd microwave twr constrd 4 nmi W (270° T) at lat 41°44'58", long 88°01'57".
CHICAGO, HINSDALE ARPT: 180' (825' MSL) lgtd microwave twr constrd 5 nmi NE (054° T) at lat 41°47'50", long 87°-51'29".
CHICAGO, MIDWAY ARPT TWR: Radar advisory to all acft operg VFR. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000' MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft lndg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.
CHICAGO-O'HARE INTL ARPT: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts. Caution advised.
PEORIA, GREATER PEORIA ARPT: 5' unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.
POLO, HAMILTON FLD: Closed until further notice due ice and snow.
ROCKFORD MUN ARPT: 600' (1440' MSL) lgtd TV twr being constrd 3.5 nmi ENE (070°T) at lat 41°-55'18", long. 88°59'55".
SULLIVAN COMMUNITY ARPT: Closed winter months due soft rnwys, mrkd with "X".

INDIANA

MARION MUN ARPT: Airport Information Desk (AID) comsnd. Hrs of opern 0700–1800 EST daily. A service A teletype will provide weather info locally at Marion. Pilot briefs and other flight services may be obtained locally by visiting the AID facility and using the FAS line provided to the Indianapolis FSS.
ORLEANS ARPT: Clsd to acft over 6000 lbs during winter months.
SCOTLAND: Controlled explosive demolition is conduct week days 0730–1600, at the U.S. Naval Ammuniti Depot, Crane, Ind in a controlled firing area one nmi diameter lctd 160°/8.7 nmi from Scotland VORT from the surface to 2200' MSL.
WASHINGTON, DAVIESS CO MUN ARPT: New. Lctd 3 nmi SE lat 38°42', long. 87°08'. Elev: 470'. One rnwy asphalt N 3200 x 60'. P-line N. FSS: Terre Haute.

IOWA

CHARITON ARPK: Clsd for rnwy paving.
GUTHRIE CENTER MUN ARPT: 220' (1423' MSL) lgtd rdo twr const 3.5 nmi SSE (160°T) at lat 41°37'50", long 94°29'15".
MT PLEASANT MUN ARPT: Clsd until aprxly Apr 15.
NEWTON MUN ARPT: NE/SW rnwy clsd.
WASHINGTON MUN ARPT: Clsd until aprxly June 1965.

KANSAS

GARDEN CITY, EXPERIMENT STATION ARPT: 3360' MSL) lgtd rdo twr constrd 6 nmi W (276°T) lat 38°00'32", long 100°56'18".
LIBERAL MUN ARPT: Airport Information Desk (AID) Facility comsnd. Service A weather info at AID room. Pilot briefs and other flight services obtained locally from Liberal by foreign exchange phone (MA 4–7331) in to Garden City FSS.
LYONS MUN ARPT: During dalgt hrs agricultural ac on tkofs are using nonstandard patns due to proximi of congested areas and are proceeding at low altitu out of tfc patn area. Constr on all txwys and ram areas. NW/SE and NE/SW rnwys clsd.
SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efc 30 September 1961, is revised as follows effective im mediately: Add Note: Radar vectoring to final a proach course authorized.
TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Amd 16: ILS–13. Amdt 17 and ILS–31. Amdt 7 are amend as follows, effective immediately: C–dn, two eng or les 65 kt or less, 600–1 vice 500–1. Unlighted smoke sta 1137' msl within circling criteria.

KENTUCKY

WEST LIBERTY, MORGAN CITY ARPT: Clsd unt aprxly March 15, 1965.

LOUISIANA

GRAND ISLE RDO: About March 15, VOR wi comsnd. Ident: "GNI." Freq: 109.4. Class: L–BVO Lctd at lat 29°10'26", long 90°06'12". Variation 0° Monitoring category 1. Ctld by New Orleans FSS.
HOUMA, HAMMONDS AIR SERVICE SEAPLAN BASE: 408' rdo twr mrkd and lgtd lctd 0.2 nmi SW.
HOUMA MUN ARPT: 200' (210' MSL) lgtd tmpy derrick constrd 1 nmi NNW (333°T) at lat 29°35'04" long 90°40'30". Will be removed 7/1/65.
LAFAYETTE ARPT: 505' (549' MSL) lgtd rdo twr constrd 5 nmi NNW (335°T) at lat 30°16'40", long 92°01'27".
LAKE CHARLES, MORGAN CROP SERVICE 2 ARPT: Clsd to public
NATCHITOCHES MUN ARPT: Rnwy lgts inop and aprxly March 1, 1965

W ORLEANS INTL ARPT: 421' (421' MSL) lgtd transmission line hwr constrd 6 nmi SE (125° T) at lat 29°57'01", long 90°08'11".

W ORLEANS INTL ARPT: 463' (463' MSL) lgtd transmission line hwr constrd 6 nmi ESE (112XT) at lat 29°56'48", long 90° 08'39".

MAINE

AR HARBOR ARPT: Rnwys 7-35, 4-22 plowed 3000 x 05'.

UE HILL ARPT: Clsd winters.

BLOIS FLIGHT STRIP: Clsd winters.

STPORT MUN ARPT: Rnwys not plowed.

ULTON INTL ARPT: Rnwy 5-23 plowed winter onths.

DSON, ROBBINS FLD: Clsd winters.

BEC ARPT: Clsd winters.

LLINOCKET MUN ARPT: Rnwy 11-29, txwy and amp plowed winter months. Rnwy 16-34 skl operns nly, snow banks across 16-34 at intersection with 11-29. Acft using 16-34 and 11-29 not visible to each ther until apchg intersection.

OSE RIVER, SKY LODGE ARPT: Closed winters.

D TOWN MUN ARPT: Rnwy 15-33 plowed full length nd width.

INGTON MUN ARPT: Rnwy 6-24 not plowed winter nonths.

OMASTON ARPT: Rnwy not plowed during entire inter.

NTERPORT, FERNALD ARPT: Rnwys not plowed.

MARYLAND

NAPOLIS SPECIAL NOTICE: Electromagnetic radiation vcnty parabolic antenna at Greenburry Point at 38°58'22", long 76°27'00", about 2.3 nmi ESE, immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel, cft, pwr service, insts. Pilots of helicopters warned gainst hovering in vcnty and should avoid apchg loser than ½ mi.

ESTERTOWN, GILL ARPT: Clsd to transients Dec 5, 1964-March 31, 1965.

URCHTON, DEEP CREEK ARPK: Clsd until May 15, 965.

LLEGE PARK ARPT: Open. The abandoned arpt deicted on the Washington Sectional Chart is Erco Fld.

MBERLAND RDO: Non federal H facil comsnd. Ident: CBE. req: 317 kc. Class: MHW. Owned and operated by City of umberland. Facility operates 24 hrs daily.

STON MUN ARPT: Rnwy 14-32 clsd ngt operns, due gts inop.

KTON, LOVETT ARPT INC: Clsd to all acft until prxly April 1.

LDEN HILL ARPT: Clsd winter months.

RK HALL ARPT: Flight in Restricted Area R-4007 uthorized only within one mi radius of arpt and in ne mi wide corridor 242° (M) from the arpt at and elow 1200'.

NEY POINT ARPT: Flight in Restricted Area R-4007 uthorized only within one mi radius of arpt and in ne mi wide corridor 347° (M) from the arpt at and elow 1200'.

EVENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island letns. Signs funtion with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BOSTON ARTCC: Nov 24, extended radar enroute tfc ctl service will apply to acft departing from destined to Concord Mun, Hartness Mun, Laconia Mun Airports while enroute via portions of Blue 63, V-141, V-141E, V-93, V-30, V-151, V-151W, V-1697 and V-1695. Normal clearance limit is arpt of destination. Primary freq for this service is 127.3, or 354.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd at Saratoga Springs, N.Y. peripheral site.

BOSTON, LOGAN ARPT: All standard instrument apch procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorized from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. CAUTION: 505' bldg 1.7 mi W of arpt.

OAK BLUFFS ARPT: Clsd winter months.

MICHIGAN

MICHIGAN: The following arpts are clsd for unknown duration due to winter months. Cheboygan, Marx Fld.; Munising, Hanley Fld.; Houghton, Sands Arpt.

ALPENA SPECIAL NOTICE: Control zone and transition area effective from 0800-1600 hrs, local time daily. Feb 18 hrs will be (0800-2000).

ALPENA, PHELPS-COLLINS ARPT: Rnwy 12-30 clsd to all operns winter months.

BATTLE CREEK—KELLOGG FLD: Proc. No. ILS-22, Amdt 1 is revised as follows, effective immediately: Basic S-dn minimums Runway 22, 200-½.

BENTON HARBOR: Control zone 0730 to 2230 local time.

BIRMINGHAM, BERZ ARPT: 1049' (1749' MSL) lgtd TV twr constrd 7 nmi WSW (244°T) at lat 42°29'01", long 83°18'44".

BOYNE CITY MUN ARPT: NW/SE rnwy clsd UFN.

BRIGHTON, HYNE FLD: 245 (1230' MSL lgtd rdo twr constrd 4 nmi W (260°T) at lat 42°33'30", long 83°52'04".

CADILLAC MUN ARPT: All rnwys except 7-25 clsd to all but skl equipped acft for the winter.

CLIO, WESTPORT ARPT: No snow removal, etc Flint FSS for current info.

COLDWATER RDO: Non federal H facility comsnd. Ident: CWM. Freq: 224 kc. Class: MHW. Lctd at lat 41°56'12", long 85°02'56".

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58'00"N long 83°47'30"W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

ELMIRA, KANDAHAR ARPT: No snow removal during winter months.

FENTON, AERO ACRES ARPT: No snow removal, etc Flint FSS for current info.

FLINT, BISHOP ARPT: Caution, small herd of deer on the S half of fld.

FRANKFORT CITY-COUNTY ARPT: Rnwy 1–19 clsd for winter due to snow.

FLUSHING, DALTON ARPT: No snow removal during winter months. Ctc Flint Rdo or Unicom for fld conditions.

GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00'48", long 84°41'30", Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1)

GAYLORD, OTSEGO CO ARPT: No snow removal during winter months.

HESSEL ARPT: No snow removal during winter months.

HILLMAN ARPT: Open ski equipped acft only winter months.

HOUGHTON LAKE, ROSCOMMON CO ARPT: Rnwys 18–36, 4–22 clsd to all but ski operations for the winter due to snow.

HOUGHTON LAKE HEIGHTS, HOUGHTON LAKE STATE ARPT: Skiis only during winter months.

INDIAN RIVER, CAMPBELL MUN ARPT: No snow removal during winter months.

LAPEER, DUPONT LAPEER ARPT: Ctc Flint FSS for current info during winter months.

LEWISTON ARPT: Open ski equipped acft only winter months.

MANISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd UFN.

MENOMINEE RDO: Control zone efctv immediately from 0700–2030 hrs local time daily UFA.

MIO ARPT: Open to ski equipped acft only for the winter months.

MUNISING, HANLEY FLD: Clsd until aprxly May 1965.

NEWBERRY, LUCE COUNTY ARPT: No snow removal during winter months.

OWOSSO CITY ARPT: Ctc Flint FSS for current info during winter months.

SAGINAW MUN ARPT: Clsd to all ngt operns UFN.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)

STAMBAUGH CITY ARPT: Clsd until further notice.

TRAVERSE CITY ARPT: Rnwys 13–31 and 5–23 clsd for the winter.

VANDERBILT, SUNGLENN ARPT: No snow removal during winter months.

WASHINGTON HARBOR, ISLE ROYALE NATIONAL PARK: Jan. 30 until aprxly March 20, a flashing red bcn will be in opern as a navigation aid for small acft engaged in winter operns on this island. Burning of smoke producing material will be in progress on Mt. Feldtman and outer Washington Harbor during late February and early March.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.

BEMIDJI: Control zone 0730 to 2000 local time.

BRAINARD: Control zone efctv 0800 to 1900 local time, 0700–1930 until Jan 1

COOK MUN ARPT: Closed winters.

DEER RIVER, BOWSTRING TOWNSHIP ARPT: Closed winters.

DEER RIVER MUN ARPT: Closed winters.

ELY MUN ARPT: Clsd to wheeled acft. Not plowed UFN.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt. Ctc Hibbing FSS for blasting schedule.

LITTLE FORK MUN ARPT: Clsd to wheeled acft winter months.

MINNEAPOLIS ARTCC: Enroute radar service exc radar weather advisory service is available in the Minneapolis advisory area E of a line from a point on the United States-Canadian boundary 126 nmi NW of Sault Ste. Marie, Mich. VOR thence SW to Houghton, Mich VOR thence SW to 46°39', 89°45', thence via the Minneapolis area positive ctl boundary to the common Minneapolis-Chicago boundary at 45°34', 89°18'. Radar jet advisory service exc radar weather advisory service is available at J90 and J16 btn 25 nmi W of Sioux Falls, S. Dak and 33 nmi SE of Dupree, S. Dak; along J32 btn 70 nmi NE of Aberdeen, S. Dak and 32 nmi E of Dupree, S. Dak.; and along J70 btn 50 nmi E of Aberdeen, S. Dak; and 80 nmi NW of Aberdeen, S. Dak. Due to eqpmt characteristics, radar weather advisory service cannot be provided.

ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1–19 clsd until aprxly May 1, 1965.

WARREN MUN ARPT: Open ski acft only.

WORTHINGTON: Control zone efctv 0700 to 1830 loc. time.

MISSISSIPPI

GREENVILLE MUN ARPT: Abandoned.

LELAND, FRAZIER FLD: Clsd to public.

McCOMB, PIKE COUNTY ARPT: Rnwy 7–25 clsd for unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not pull off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V-1 vcnty Grandview, Richards-Gebaur Arpt., due concentration of tfc alts. Where possible, suggest all user operate via V–13E btn Kansas City and Butler Arpt

CHILLICOTHE MUN ARPT: 226' (1169' MSL) lgtd microwave tw constrd 19 nmi NNW (338°T) at lat 40°04'48", long 93° 39'24".

FT. LEONARD WOOD—FORNEY AAF: Radar Proc No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C–dn minimums 500–1, 600–1½, and 1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd to civil acft except on business and on fight plan. Two way rdo and prior clearance from twr rqrd before entry into R–4501. Enter R–4501 on SE heading of 140° from Waynesville, Mo.; SSW heading 210° from Vichy, Mo. (VOR); WNW heading of 290° from Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2–20 clsd. Txwy from S end of mil apron to rnwy (1500') usable for takeoff and lndg in emgcy or on req.

MACON, FOWER ARPT: 171' (1026' MSL) lgtd water tank being constrd 1 nmi N (007° T) at lat 39°44'[illegible], long 92°27'45".

MONTANA

e following is a list of fld clsd winter months: Condon USFS, Conner, Shook Mountain Arpt, Helmville, Wine Glass Arpt, Libby Arpt, Meadow Creek USFS Arpt, Ovando, Clearwater Arpt, Ovando, Heart Bar Airstrip, plains Arpt, Pole bridge, Quarter Circle M.C. Arpt, Ronan Arpt, Seeley Lake Arpt, St. Ignatius Arpt, Superior, Mineral Co Arpt, Thompson Falls Arpt, Troy USFS Arpt, Whitefish Arpt.

GREAT FALLS ARTCC (NOTIP): En route radar service radar weather advisory service available throughout the enlarged Great Falls ARTCC/NOTIP area Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC/NOTIP. VFR service in the Kallspell, Montana area will continue to be available through use of the ARTCC freq 120.4 mc. VFR flights in the Kallspell area call 'Great Falls Center—VFR Service'. Further information is contained in a letter to Airmen that has been distributed in the area.

KALISPELL, FLATHEAD CO ARPT: Rnwy 11–29 and 7–25 clsd due snow UFN. Rnwy 1–19 remains open.

NEBRASKA

BEATRICE MUN ARPT: 300 (1549 MSL) lgtd rdo twr constrd 9 nmi SSE (157°T) at lat 40°09'42", long 96°40'12".

HASTINGS: Control zone efctv (0600–2100 local time daily.

HASTINGS MUN ARPT: Constrn in progress.

HETE MUN ARPT: Clsd due rnwy constrn.

KEARNEY: Efctv Mar 4, 1965 Kearney, Nebr. control zone will be efctv from 0700 to 2200 hrs local time daily.

NICOLN MUNICIPAL AIRPORT/AFB: Proc. No. ILS-5L, Orig., is revised as follows, effec. Immediately: Straight-in minimums of 400-¾ required when glide slope not utilized.

NORFOLK: Efctv Mar 4, 1965, control zone estab as follows: "Within a 5-mile radius of the Karl Stefan Arpt (Lat 41°59'10"N, long 97°26'00"W), within 2 mi each side of the Norfolk VOR 147°, 195°, 318° and 025° rads extending from the 5-mile radius zone to 8 miles SE, S, NW and NE of the VOR."

OMAHA RDO: Voice comms with Omaha, Nebr FSS unusable below 3600' on V–6–8S btn 36 and 55 nmi E of 'CORTAC' excp tsmtg 116.3 mc.

SCRIBNER, SCRIBNER STATE ARPT: NE/SW rnwy unprly clsd.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio for information concerning release time of Restricted Area R–4803. At other than release times flight is restricted at 8000' MSL and below along airways in N portion and at 18,000' MSL and below S of airways in R–4803. Geographical coordinates of R–4803 are from 3 nmi radius circle centered at lat 39°20', long 118°52' and within 3 nmi W and 2 nmi E of a line extending 349.5° T from the circles center 15 nmi NNW.

SPECIAL NOTICE: Demolition of ordnance being conducted daily UFN Mon-Fri 1000–1500 with danger to acft from surface to 10,000' MSL within a one and one half mi radius of coordinates 38°14'30", long 118°37'-45", aprxly 20 mi S of Naval Ammunition Depot at Hawthorne.

LAS VEGAS: Hi-density jet tfc: Pilots on other than IFR clearance should either avoid or use extreme caution when traversing the following areas within which Nellis AFB hi-density jet tfc is operg. Hours of Operation: 0600–1800 local time, Monday thru Saturday, continuous daily at 9000' MSL and below within a 5 mi radius of Nellis AFB. Surface to 23,000' MSL within fig boundaries: 36°42', 115°18'; 36°42', 114°32'; 36°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°-27'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°-15'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°-45'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°-42'; 36°35', 115°42'; 36° 35', 115°37'45"; 36°26', 115°-23'25"; 36°26', 115°18'; to point of beginning. Btn 5500' MSL and 23,000' MSL within the fig boundaries: 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 115°42'; 36°35', 115°37'45"; 36°26', 115°23'25"; 36°23'-25", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; west to closest 5000' elev line at 36°13', 115°22'; SW along 5000' elevation line to 36°08'50", 115°30'; to point of beginning. Surface to 23,000' MSL within fig boundaries: 36°42', 115°18'; 36°26', 115°23'25"; 36°23'25", 115°23'25", SE along US 95 to 36°14'20", 115°14"; 36°13', 115°07'30"; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°34'30"; 114°41'-30"; 36°42', 114°32'; to point of beginning. Btn 8000' MSL and 9000' MSL within fig boundaries: 36°31', 114°56'40"; 36°42', 114°12'; 36°32', 114°12'; 36°23'-30", 114°48'20"; to point of beginning. Btn 10,000' MSL and 23,000' MSL within fig boundaries: 36°14'-20", 115°14'; west to closest 5000' elevation line at 36°13', 115°22', SW along the 5000' elevation line to 36°08'50", 115°30'; 36°10', 115°10'; to point of beginning. Surface to 9000' MSL within fig boundaries: 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30", 114°48'20"; 36°12', 114°58'; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000' MSL Frequent violations reported of Restricted Area R–4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000'.

LAS VEGAS, McCARRAN FLD: VASI inop until aprxly May 1, 1965.

MINDEN, DOUGLAS COUNTY ARPT: Caution extensive glider operns dalgt hrs. Caution student aerobatic training dalgt hrs in vcnty and E of rnwy 16–34 from 6500' to 9000' MSL.

NEW HAMPSHIRE

GILMANTON IRON WORKS, BESSE FLD: Clsd during winter months.

NORTH STRADFORD ARPT: Clsd winters.

NEW JERSEY

ATLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

BASKING RIDGE, SOMERSET HILLS ARPT: Clsd to transient acft until spring 1965.

DOVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000′ MSL. Prior entering area ctc Teterboro Rdo.

MILLVILLE MUN ARPT: Operns restricted to hard surface areas only.

NEWARK AIRPORT: Proc. No. ILS–22, Amdt. 9, effec. 10 Oct 64 and ADF Proc. No. 2, Amdt. 4, effec. 10 Oct. 64. During the period of the Yardley, Pa. VORTAC shutdown, the missed approach procedures are revised as follows: ILS–22: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished, climb to *1500′ straight ahead on SW crs. of Newark ILS to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000′, hold NE Chatham RBn, one-minute right turns, inbound crs. 241°. *2000′ for jet aircraft. ADF No. 2: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished within 5.8 miles after passing LOM, climb to *1500′ straight ahead on crs. 217 degrees to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000′. Hold NE Chatham RBn, one-minute right turns, inbound crs. 241 degrees. *2000′ for jet aircraft.

OCEAN CITY ARPT: Clsd until Spring, 1965.

TRENTON, MERCER COUNTY AIRPORT: Efctv with and during the period of the Yardley, Pa. VORTAC shutdown, the flwg tmpry ADF procedure authorized: Arpt Elev: 213′. Facil class: MHW. Ident: TTN. Facil lctd on arpt—lat 40°16′39″N, long. 74°49′11″W. Freq: 369 kcs. Transitions: From PNE VOR to TTN RBn, Direct, 2000′. From RBV to TTN RBn, Direct, 2000′. Radar transitions authorized in accordance with approved radar patterns. Procedure turn S side of crs. 23°. Outbnd, 050°. Isbnd, 2000′ within 10 mi of TTN RBn. Minimum alt over facil on final apch crs, 900′. Facil on arpt. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 miles after passing TTN RBn, climb on crs 050° to 2000′ within 10 mi, then make left turn and proceed direct to TTN RBn. Hold SW, one minute right turns, inbound crs 050°. Ceiling and visibility minimums: T-dn, two eng. or less, 300–1; over two engines, 200-½. C-dn, two eng. or less, 700–1; over two engines, 700–1½. A-dn, all aircraft; 800–2. CAUTION; Tower 433′ MSL 2.4 nmi SW or arpt.

TRENTON, MERCER COUNTY ARPT: Rnwy 6–24 clsd. May be used as txwy only.

WEST MILFORD, GREENWOOD LAKE ARPT: Arpt unattended New Year's Day, Easter Sunday, Thanksgiving Day and Christmas Day.

NEW MEXICO

ALAMOGORDO MUN ARPT: Pole 1200′ from apch end rnwy 16.

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR wea conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57′30″, long 106°33′45″. Soil clods may be thrown to a radius of 1000′.

HOBBS MUN ARPT: 158′ (3833′ MSL) lgtd tmpry oil derrick constr 1.5 nmi ESE 123°T) at lat 32°45′22″, long 103°11′25″.

HOBBS MUN ARPT: Rnwy 8–26 clsd until aprxly Mar 15, 1965.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

NEW YORK

ANTHONYS NOSE: Awy bcn site #4 will be permly decmnsd.

BUFFALO RDO: VORTAC will be shut down for freq channel change to 116.4 mc/111. Under Low Altitude captions MRA, MEA should read MEA MAA. This corrects Section III, Page 36 of Airman's Information Manual dated February 4, 1965.

DUNKIRK RDO: About Feb 24, MHW will be permly decmsnd.

KEESEVILLE ARPT: Clsd winters excp to ski acft.

KEENE, MARCY FLD: Clsd winters.

MORRISONVILLE, NORTHWAY ARPT: Rnwy plowed during winter.

NEW YORK CITY: 1520′ rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts opers on rotating basis dusk to midngt. From midngt to daybreak bcn in fixed position with light beamed directly S.

NEW YORK JOHN F. KENNEDY INTL TWR: Effective August 1, 1964, Kennedy Tower began an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling relative to frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a single control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runway currently in use shall be issued at this time. Time and altimeter setting will be issued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall con-

sist of only that which will concern the departure aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs., when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay ,and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

EW YORK LA GUARDIA ARPT: Efctv Feb 1 to Apr 25, 1965, arpt will be clsd to all acft operns from 2330 to 0500 EST Monday thru Friday due to constrn.

ORTH TONAWANDA, COUNTY LINE ARPT Clsd to transient acft until May 15, 1965.

ICHARD PARK: Clsd until spring.

TSFORD, BRIZEE HARMON ARPT: Abandoned.

)MULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350' radius centered at lat 42°46'50"N and long 76°53'06"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

'ONDEROGA ARPT: Clsd for duration winter season.

ATERTOWN MUN ARPT: Rnwy 1–19 clsd to all operns 'FN. Will not be maintained during winter months.

NORTH CAROLINA

IZABETH CITY MUN ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, t is recommended that all tfc lndg at the Elizabeth 'ity Mun arpt contact Elizabeth City Coast Guard twr n 126.2 mc for tfc information. Acft without radio nter 500' pattern from the west.

YETTEVILLE, POPE AFB: Extensive operns to ,000' MSL 1200–2200Z Mon thru Fri. Pilots of all cft are advised that in an area from Lillington, N.C., orth along arwy V3E 6 NM to Chalybeate, N.C., ounterclockwise west 12 NM to Broadway, N.C., thence W 38 NM to Marston, N.C., thence E 26 NM to Rocksh, N.C., thence NE 27 NM back to Lillington; intensive training will be conducted W of V3E using eavy four engine transport and prop jet (C–124 and -130) acft, consisting of single, formation, and multile formation flights. These acft oper 2,000' and below nder VFR conditions, conducting low level (300' AGL to 2,000' MSL) runs in the maneuvering area described above, for troop and cargo drops into R-5311. Similar operations are conducted in the vicinity of Mackall AAF with drops at Mackall AAF.

HICKORY MUN ARPT: Rnwys 1–19 and 11–29 clsd due constrn.

NORTH DAKOTA

LANGDON MUN ARPT: Rnwy lgts inop UFN. Open for ski acft only.

MOHALL ARPT: Lgtg facils inop until spring.

PEMBINA MUN ARPT: E/W rnwy clsd and constrn on rnwy 14–32 until aprxly Jul 15, 1965.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500' MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area: bounded on S by lat 41°11'30", on N by lat 41°12'20"; E long 81°04'22"; W long 81°06'14". Demolition activities in this area will go no higher than 5000' MSL and only when ceiling of 10,000' or better and vsby 10 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4–1246).

TOLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400–2300 due to drag races all rnwys UFN.

OKLAHOMA

ANADARKO MUN ARPT: 260' (1620' MSL) lgtd rdo twr constrd 5 nmi N (360° T) at lat 35°07'55", long 98°15'45".

CHECOTAH, KOCK ARPT: 300' (1040' MSL) lgtd twr constrd 13 nmi SE (146°T) at lat 35°17'45", long 95°21'54".

CLINTON MUN ARPT: 280' (2054' MSL) lgtd rdo twr constrd 9 nmi NNE (021° T) at lat 35°41'07", long 98°52'43".

CORDELL MUN ARPT: 262' (1877' MSL) lgtd rdo twr constrd 12 nmi E (095° T) at lat 35°17'00", long 98°42'40".

ENID: Ctl zone efctv 0700–1800 local time Mon thru Thurs 0700–2200 local time Fri, from 0800–1600 local time Sat, and 1200–1800 local time Suns. Control zone not designated on holidays.

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet tfc is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500' MSL and maintain 3500' MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500' MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500' MSL. To and from the S maintain 2300' MSL E of an extended N/S line to a point abeam the town of Bison. To and from the N and E maintain 4000' MSL or below within 20 mi of Woodring Arpt. Low level jet

navigation missions now being performed at 1000' to 1500' AGL at 300 knots along the following routes: Vance AFB: 8 nmi N of Fairview: Ft Supply; Darrouzett; Briscoe; Strong City; Bridgeport; Enid. Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid. Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200–2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

LAWTON MUN ARPT: 242' (1312' MSL) lgtd rdo twr constrd 10 nmi S (172° T) at lat 34°24'30", long 98°23'12".

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: New N/S rnwy under constrn 1 mi E of existing N/S rnwy. Clsd to all operns.

PURCELL, CHANDLER FLD: 310' (1290' MSL) lgtd rdo twr constrd 7.5 nmi S (171° T) at lat 34°50'49", long 97°21'30".

STILLWATER, SEARCY FLD: Intermittent constrn in progress all rnwys until aprxly Aug 31, 1965.

TIPON MUN ARPT: N/S rnwy clsd until July 1, 1965 reconstrn turf rnwy.

WEBBERS FALLS, SHEFFIELD ARPT: 300' (1940' MSL) lgtd microwave twr constrd 19 nmi NE (056° T) at lat 35°40'09", long 94°48'42".

YUKON, CIMARRON FLD: Use turf rnwy 17–35 only.

OREGON

The following arpts are clsd for an unknown duration, due to winter: Beaver Marsh; Stearns; Crescent Lake Flight Strip; Idanaha, Strautiam; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000' in area bounded by 46°12'N, 124°10' W thence 46°12'N, 123°59'20"W thence along a line one half mi E of shoreline to 46°02'N, 123°55'30"W thence 46°02'N, 124°10'W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.

BURNS MUN ARPT: Rnwy lgts inop until further notice.

BROOKINGS, CRISSEY STATE LINE AIRSTRIP: Arpt clsd for unknown duration due damaged rnwy.

CAVE JUNCTION, SPORTSMENS RANCH ARPT: Clsd until aprxly Mar 1, 1965.

NORTH BEND ARPT: About 17 nmi N a moored aluminum colored Vee shaped balloon 75,000 cubic ft capacity being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

PORTLAND, AQUA MARINA SEADROME: Abandoned.

UMPQUA RIVER, SCOTTSBURG TO REEDSPORT: River canyon crossed by 4 electric power lines. Twrs on both banks mrkd by red lgts. Easternmost crossing also mrkd with 20" orange aluminum balls spot lgtd from both sides of the river.

PENNSYLVANIA

BLOOMSBURG MUN ARPT: New macadam rnwy 8–26 now in use 2800 x 500' days only. E/W turf rnwy perm clsd.

BRISTOL, 3-M AIRPORT: VOR Proc. No. 1, Orig., efctv 5 Sept 1964. During the period of the West Chester VORTAC shutdown, change transition from Ardmore VHF Int to read from "Temporary Ardmore VHF Int to PNE VOR".

CLEARFIELD ARPT: 539' (2714' MSL) lgtd TV twr constrd 8 nmi NE (037°T) at lat 41°07'21", long 78°26'28".

COUDERSPORT, POTATO CITY ARPT: Clsd winter months.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1966 due to banner towing.

GETTYSBURG, ADAMS COUNTY ARPT: Arpt will be clsd intermittently Feb 15 to Apr 1 due to soft fld conditions

GREENVILLE MUN ARPT: Clsd to wheeled acft

HANOVER, DEVENER ARPT: Arpt will be clsd from Jan 1 to April 1, 1965 due to soft conditions and snow.

NEW ALEXANDRIA ARPT: Clsd until aprxly May 1, 1965.

PHILADELPHIA INTL ARPT: Excavation 1 to 3 ft deep, 100' long and 150' wide aprxly 30' from apch end rnwy 27. Ant structure aprxly 5' hi, 45' long 217' from apch end rnwy 27 UFN.

PITTSBURGH, ALLEGHENY COUNTY ARPT: Clsd to all transient acft due to banner towing activities

TIONESTA, BENNINGER ARPT: Clsd due to snow UFN

SOUTH CAROLINA

CHARLESTON AFB/MUN ARPT: Rnwy 3–21 clsd

CHERAW MUN ARPT: Closed until aprxly March 15

COLUMBIA ARPT: First 1000' rnwy 10 clsd dur dalgt hrs due constrn

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

LAKE CITY, BROWN ARPT: Rnwy 1–19 clsd until aprxly Apr 1 for resurfacing and extension on N end

SOUTH DAKOTA

ESTELLINE ARPT: Clsd during winter months.

MOBRIDGE RDO: State owned and operd VOR open 0700–1900, VFR use only. Class: L-VOR. Freq: Ltd receivers 122.1. Ident: MBG. Lctd lat 45°33'07" long 100°21'56".

PARKER ARPT: 408' (1748' MSL) lgtd rdo twr constrd 1.5 nm SW (227°T) at lat 43°22'41", long 97°08'46".

TENNESSEE

MURFREESBORO MUN ARPT: Glider towing and soaring activity conducted dalgt hrs at and in vicinity arpt.

NASHVILLE, CUMBERLAND FLD: Hvy equipment crossing S end rnwy dalgt hrs Mon-Sat noon.

TEXAS

AMARILLO: Control'ed Firing Area lctd 10 mi NE of end of NE/SW rnwy of Amarillo AFB/Mun: Lat 35°21'09", long 101°37'01" E to 35°21'12", 101°32'29" S to 35°17'56", 101°32'26" W to 35°17'56", 101°37'04" N to point of beginning. Time of Use: 24 hrs per d. Altitudes: up to 3552'.

BIG SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V-66, including area W along V-16 to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V-66, to N-S line drawn through town of Loraine. Tfc Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of

nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

BIG SPRING HAMILTON FLD: Caution, all alt 3,600' MSL and above intensive jet tfc. T-37 tfc pattern alt at Webb AFB 3,600' MSL.

BIG SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100' MSL and above, intensive jet tfc. T-37 tfc pattern alt at Webb AFB 3,600' MSL.

BORGER: Control zone efctv Feb 22, 1965 from 1230 to 2230 lcl time daily, excp Sats when 0830 to 1630 local time.

BROWNSVILLE, RIO GRANDE VALLEY INTL ARPT: Rnwy 13R-31L clsd except that lgt acft may be cleared to land on rnwy 13R.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13-31 clsd ufn.

COLORADO, ALLISON RANCH ARPT: Clsd to public.

DALLAS, LOVE FLD: Two bldgs being erected 5 nmi SSE (144°T) at lat 32°47'00", long 96°47'50". Bldg A max tmpry hgt 661' (1115' MSL). Completed bldg will be 595.5'. (1039' MSL). Bldg B will reach max tmpry hgt 710' (1149' MSL). Completed bldg will be 666.5' (1049' MSL).

EDINBURGH MUN ARPT: Rnwys rough. Use Caution.

HONDO: Randolph AFB jet T-38 and T-33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 255.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 700' above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 3000' MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress. Non-scheduled dropping of personnel and equipment conducted from alt of 700' to 1000' above the surface on W side arpt Tues, Wed and Fri 1900-2300C and on Sat and Sun 1500-2100C.

HOUMA MUN ARPT: 268' (272' MSL) lgtd rdo twr constrd 2.5 nmi W (270°T) at lat 29°33'58", long 90°42'33".

HOUSTON, COLLIER ARPT: 379' (437' MSL) lgtd rdo twr constrd 3 nmi WSW (253° T) at lat 29°52'10", long 95°30'57".

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns for unknown duration.

HOUSTON INTL ARPT: Inbnd flts etc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° etc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038-188° etc HOU apch ctl on 118.1 or 307.1.

HOUSTON, MEML SKYLAND ARPT: 300' (345' MSL) lgtd radio twr constrd 7 nmi WSW (254° T) at lat 29°47'15", long 95°-49'30".

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

JOHNSON CITY, JOLLY ARPT: Abandoned.

KERMIT, ROBINSON ARPT: 350' (3654' MSL) lgtd rdo twr constrd 12 nmi NE (054 T) at lat 31°58'58", long 102°43'38".

KILLEEN, HOOD AAF: A VFR Practice Instrument Apch Procedure has been published in a loose leaf format for use by USAF Training Command Pilots. Civil requests for this chart should be submitted to the Director, Coast and Geodetic Survey, Attn: Distribution Division, 14th and Constitution Avenue, Washington, D.C. 20230.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1, Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controller airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

KILLEEN MUN ARPT: Clsd for rebuilding until aprxly May 15, 1965. Tmpry 1600' sod strip avbl for use during dalgt hrs when dry.

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000' MSL in this area. It this is not feasible, ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; rcv on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

LUBBOCK MUN ARPT: N 400' rnwy 17L-35R clsd during constrn new E/W rnwy Usable lndg length both directions 3000'.

MIDLAND AIR TRML: Webb AFB T-38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS, acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000' MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42'00", long 98°33'50". Altitude: surface to 3000' MSL (1500' AGL). Time and use: 0830 to 1200 hrs lcl time, Frl of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000' MSL. Hvy conventional and jet instrument acrobatic and transition trng in SE quadrant btn V198 and V163 and V163W 60 nmi radius of Randolph Mon-Frl. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Aux Arpt. Hvy IFR/VFR penetrations and apers will be made from the La Vernia VOR to Randolph AFB. Should necessity dicate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

SPEARMAN ARPT: 425' (3596' MSL) lgtd rdo twr constrd 15 nmi WNW (282°T) at lat 36°15', long 101°22'41".

TEMPLE, DRAUGHON-MILLER ARPT: Runway 11–29 clsd until aprxly Mar 1, 1965.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

UTAH

BRYCE CANYON ARPT: Rnwy 12–30 clsd UFN acct snow.

BRYCE CANYON, KANAB MUN ARPT: Rnwy lgts inoperative. Rotating beacon changed to white.

DELTA MUN ARPT: Clsd to all ngt operns 1800–0600 MST UFN.

DUCHESNE MUN ARPT: Lndg may be unsafe when snow covered. No snow removal eqpmt or svc. during winter months.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N, 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

BARRE-MONTPELIER ARPT: Rnwy 5–23 clsd until aprxly Apr 15, 1965.

BRISTOL, MUN ARPT: Open winters. N/S rnwy will be plowed.

NEWPORT MUN ARPT: Rnwy 5–23 clsd until about May 1, 1965 due snow.

RUTLAND MUN ARPT: Rnwy 13–31 clsd winters.

VIRGINIA

DAHLGREN: Restricted Area R–6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR–SS, Mon-Fri.

EMPORIA MU NARPT: All lndg area lgts inop.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.

FRONT ROYAL, STOKES FLD: Unattended until aprxly Mar 1, 1965.

MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.

ONANCOCK, JOHNSON FLD: 285' (317' MSL) lgtd rdo twr constrd 3 nmi ENE (068° T) at lat 37°43'02", long 75°41'01".

RICHMOND, RICHARD E. BYRD FLYING FLD: Rnwy 15–33 avbl only to scheduled DC–7, DC–6, turbo jet and local based military jet acft with prior arrangement with twr.

SHENANDOAH ARPT: Clsd for winter.

WELLVILLE, DALTON ARPT: Abandoned.

WASHINGTON

The following is a list of flds that are clsd November-May due to winter elements: Bandera Arpt; Easton Arpt; Enumclaw, Ranger Creek Arpt; Laurier, Avery Arpt; Leavenworth, Lake Wenatchee Arpt; Lester Arpt; Oroville, Nighthawk Arpt; Packwood Arpt; Skykomish Arpt; Stehekin Airfld.

The following is a list of airports that are clsd until further notice (aprxly April or May): Davenport, La-Crosse Mun, Lind, Northport-Lowry Mun and Metaline Falls-Sullivan Lake USFS.

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extendin gfor aprxly 2000' due to construction on fld UFN.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195–300° at 1000' MSL beyond 2 mi.

SEATTLE: Hi alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

WENATCHEE RDO: VOR shutdown rescheduled to about Mar 1 until aprxly Mar 5, 1965 For substitute route structures, see Section III, dated Feb. 4, 1965.

WEST VIRGINIA

CHARLESTON, KANAWHA ARPT: 349' (1449' MSL) lgtd bcn twr constrd 3 nmi SSW (211° T) at lat 38°19'15", long 81°36'31".

CLARKSBURG, BENEDUM ARPT: Constr in progress rnwy 13–31, unlgtd.

WISCONSIN

CAMP DOUGLAS: Control zone effective Feb 18, 1965 from 0745-1630 lcl time daily until further notice.

CORNELL ARPT: Open to ski equipped acft only

GRAYTOWN ARPT: Open to public. Lctd 0.25 smi SE at lat 45°12', long 92°07'. Elev: 1040. One rnwy E/W 2000 x 100' Turf. 80/87 Fuel only.

GREEN BAY RDO: VORTAC shutdown rescheduled to about Mar 1 until aprxly Mar 5, 1965. For substitute route structures see Section III, dated Feb 4, 1965.

JANESVILLE: Control zone Sun thru Fri 0700 to 2359 and Sat from 0700 to 2000 local time.

LADYSMITH, BUSH FLD: Open to ski equipped acft only.

LAND O LAKES, KINGS LAND O LAKES MUN ARPT: Clsd winter months. Rnwy lgts on req (Phone 547–3777.)

MANITOWISH WATERS ARPT: Clsd winters. No fuel until spring.

MANITOWOC MUN ARPT: Rnwy 17–35 being extended to 5000'. Constrn in progress N end rnwy. Men and equipment in N apch area. Completion date expected about mid summer.

WEST SALEM, MAPLE GROVE ARPT: Clsd until April 15, 1965.

WYOMING

KREMMERER MUN ARPT: Clsd UFN due winter snow conditions.

WILSON, FISH CREEK RANCH ARPT: Open to public May 15 to Nov 15 annually. Lctd 2 smi S at lat 43°28', long 110°52' Elev: 6136'. One rnwy 15–33 Turf 3150 x 120. Unattended

CHANGES/ADDITIONS TO AIM

I-4

The list of airborne check points and ground check oints is published in Section III. VOT's are in- uded with the airport information in Section IV A.

December 1964

I-5:

)R Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

e terms VOR, VORTAC, and TACAN are, opera- onally, general terms covering the VHF and UHF nidirectional bearing type of facilities without re- d to the fact that the power, the frequency pro- cted area, the equipment configuration, and opera- nal requirements may vary between the facilities different locations.

e table below lists the intended operational service lume or volumes of the various categories of VOR's, ORTAC'S, and TACAN's. Below 18,000 feet msl, e operational service volume of the H class facility s been limited to the L class service volume due to nal coverage characteristics of VHF and UHF cilities at the lower altitudes. T class facilities ovide terminal service at locations where it is not acticable to provide L class frequency protection. rnal signal coverage and interference free service y be expected within the operational service volume less specific facility restrictions have been imposed. e of these facilities for IFR operations outside of operational service volume without additional ght inspection is not intended and may result in dependable or inadequate indications in the cock- .

s of VOR, AC, or TACAN	Operational Service Volume
erminal)	25 nmi up to 12,000' msl
ow altitude)	40 nmi up to 18,000' msl
ligh altitude)	40 nmi up to 18,000' msl 130 nmi from 18,000' msl 45,000' msl 100 nmi above 45,000' msl

December 1964

E I-5:

ete paragraphs 5 and 6 under Distance Measuring ment (DME) and substitute the following:

e to the limited number of available frequencies, signment of frequency pairs has been required for certain military noncollocated VOR and TACAN facilities which serve the same area but which may be separated from a few to many miles. Additional frequency assignments have been made for remotely located military TACAN facilities which may be within reception range of a randomly paired ILS localizer. Selection of a DME channel while tuned to a randomly paired VOR or ILS frequency could result in the reception of distance information from a source which is remotely located from the VOR or ILS facility.

6. VOR/DME, VORTAC and ILS/DME facilities are readily identified by synchronized identifications which are transmitted on a time share basis. Identification of noncollocated VOR or ILS and TACAN facilities are not synchronized, resulting in intermixing and apparent distortion during TACAN identification whenever simultaneous aural monitoring of VOR or ILS and TACAN identification is attempted. DME equipment has been installed at only a few ILS locations and any DME presentation while using an ILS frequency which does not have an associated DME would be originating from a randomly paired remote location.

7. Aircraft receiving equipment which provides for automatic DME selection assures reception of azimuth and distance information from a common source whenever designated VOR/DME, VORTAC and ILS/DME navigation facilities are selected. Until further advised, pilots are cautioned to disregard any distance displays from automatically selected DME equipment whenever VOR or ILS facilities, which do not have the DME feature installed, are being used for position determination.

February 1965

PAGE I-24:

Under TRANSCRIBED WEATHER BROADCASTS add:

3. Automatic transcribed broadcasts service is available on class H facilities designated as:

a. HSAB—A class H radio beacon required for IFR radio navigation and/or airtraffic control and for automatic transcribed weather broadcast service. This class facility will be depicted on radio facility, Sectional and WAC type charts.

b. SABH—A class H radio beacon having limited navigational use in that it is not flight inspected for IFR certification or primarily used for air traffic control. This aid will provide the automatic transcribed weather

adcast service and will be depicted on Sectional and AC type charts, only.

. Operation of either type facility will be essentially same. Both will have a code identification sent at quency intervals keyed simultaneously with the voice nals. Although, not essential, it may be advantageous listeners to equip their receivers with a 1020 cycle e rejection filter which, when switched to the "voice" ition, will silence the keyed code identification signal.

. The AB (automatic transcribed service) component HSAB's and SABH's will operate continuously except ing those periods when the transcription equipment operative. During these periods manual broadcasts, dduled (H+45 hourly) and non-scheduled will be le.

February 1965

E I-36:

nder Vertigo, delete last sentence, "If the beacon ... etc".

December 1964

E II-3—PARAGRAPH 3. DIRECT FLIGHTS.

a. The azimuth feature of VOR aids and the azimuth and distance (DME) features of VORTAC/TACAN aids are assigned certain frequency protected areas of airspace which are intended for application to established airway and route use, and to provide guidance for planning flights outside of established airways or routes. These areas of airspace are expressed in terms of cylindrical service volumes of specified dimensions called "class limits" or "categories." An operational service volume has been established for each class in which adequate signal coverage and frequency protection can be assured. To facilitate use of VOR, VORTAC or TACAN aids, consistent with their operational service volume limits, pilot use of such aids for defining a direct route of flight in controlled airspace should not exceed the following:

December 1964

E II-8:

nder 3. STANDARD INSTRUMENT DEPARES (SIDs) add: paragraph d. "It will be the onsibility of each pilot to accept or refuse the ance issued." Change present d. to e.

December 1964

E II-16:

OLDING—Revise paragraph 6, last sentence to : "Where the fix is associated with an instrument oach, and timed approaches are in effect, a procedure shall not be executed unless the pilot advises ATC aircraft holding are expected to proceed inbound nal approach directly from the holding pattern when oach clearance is received."

December 1964

PAGE II-18:

AIRCRAFT CLIMBING/DESCENDING Add new paragraph:

d. If it is necessary during a climb or descent to level off at an intermediary altitude, advise ATC.

December 1964

PAGE II-19—MILITARY CLIMB CORRIDOR RESTRICTED AIRSPACE.

The procedures in this paragraph become effective on January 7, 1965.

Change title to read: "RESTRICTED AIRSPACE".

December 1964

PAGE II-20:

COMMUNICATIONS, 1. g., after the example add the following:

NOTE—Pilots in Alaska, Hawaii, U.S. Territories and possessions, operating at or above flight level 240 and who have requested and received a clearance specifying "VFR Conditions On Top" are requested to report their "actual" altitude as part of their IFR position reporting procedure and advise ATC prior to making an altitude change.

December 1964

PAGE II-22:

Add the following:

SPECIAL USE AIRSPACE

1. It is mandatory that pilots avoid unauthorized operation in prohibited areas and restricted areas and extremely important that warning areas not be penetrated unless prior approval has been obtained. The following explanation is to impress on all concerned the purpose of such areas and indicate that hazards are presented by activities within restricted and warning areas. Caution and intensive student jet training areas contain activity of interest to the nonparticipating pilot. The operations conducted within these areas are not considered hazardous and consist primarily of high volume military training. These five types of airspace are depicted on aeronautical charts published by the Coast and Geodetic Survey.

a. **Prohibited Area.** Airpsace identified by an area on the surface of the earth within which the flight of aircraft is prohibited. Such areas are established for security or other reasons associated with the national welfare. These areas are published in the Federal Register.

b. **Restricted Area.** Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Activities within these areas must be confined because of their nature or limitations imposed upon aircraft operations that are not a part of those activities or both. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft. Penetration of restricted areas during periods of activity may be extremely hazardous to the aircraft and

its occupants. Restricted areas are published in the Federal Register and constitute Part 73 of the Federal Aviation Regulations.

c. **Warning Area.** Warning areas are established beyond the three-mile limit. They are areas of defined dimensions established to contain both visible and invisible hazards to nonparticipating aircraft. Though the activities within the warning areas are as hazardous as those contained within restricted areas, warning areas cannot be legally designated because they are over international waters. Penetration of warning areas during periods of activity may be hazardous to the aircraft and its occupants. Official descriptions of warning areas may be obtained upon request to the FAA, Washington, D.C.

d. **Caution Area.** Areas of defined dimensions within which the military training activities conducted, though not hazardous, are of interest to nonparticipating pilots. There are no restrictions applicable to flight within these areas. Information concerning these areas may be obtained upon request to the FAA, Washington, D.C.

e. **Intensive Student Jet Training Area (ISJTA).** These areas are depicted on aeronautical charts to identify airspace utilized by the military for the intensive training of student jet pilots. There is no restriction to VFR flight in these areas. Information on these training areas may be obtained from any FSS within 100 miles of the area.

December 1964

PAGE II-25:

Change the material under RADAR TRAFFIC INFORMATION SERVICE, subparagraph c. "Issuance of Traffic Information" as follows:

Issuance of Traffic Information—Traffic information will include the following concerning a target which may constitute traffic for an aircraft that is:

(1) Radar identified:
   (a) Azimuth from the aircraft in terms of the twelve hour clock;
   (b) Distance from the aircraft in nautical miles;
   (c) Direction in which the target is proceeding; and
   (d) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffic; i.e., slow or fast moving.

   Example:

   Traffic 10 o'clock, 3 miles, west-bound (type aircraft and altitude, if known or relative speed of the observed traffic). The pilot may, upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller.

(2) Not radar identified:
   (a) Distance and direction with respect to a fix;
   (b) Direction in which the target is proceeding; and
   (c) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffic, i.e., slow or fast moving.

   Example:

   Traffic 8 miles out of the airport northeast-bound, (type aircraft and altitude or relative speed of the observed traffic).

December 1964

PAGE II-25:

Change the material under TERMINAL RADAR SERVICE as follows:

TERMINAL RADAR SERVICE

(Provided in designated Terminal Radar Service Areas, TRSA).

1. This service has been implemented at certain terminal locations and is provided on a voluntary pilot participating basis.
2. The purpose of this service is to provide, to the extent possible separation between all participating VFR aircraft and all IFR aircraft operating within the airspace defined as the TRSA.
3. The TRSA is primarily a radar environment and control is predicated thereon, however, this does not preclude application of nonradar separation when required or deemed appropriate. During weather conditions equal to or better than basic VFR:
   (a) 500 feet vertical separation may be used between VFR aircraft and/or between VFR and IFR aircraft.
   (b) Visual separation may be used between VFR aircraft and/or between VFR and IFR aircraft when the pilot sees the other aircraft and reports he will maintain visual separation from it.
4. Within the TRSA traffic information on observed but unidentified targets will, to the extent possible, be provided all IFR and participating VFR aircraft and such aircraft, at the request of the pilot, will be vectored to provide standard radar separation from the observed traffic, insofar as possible.

December 1964

PAGE II-26.

Effective Jan 7, 1965 revise the material under APPROACH CONTROL a. Radar Approach Control, subparagraphs (2) and (3) and add new (4) as follows:

(2) IFR aircraft may be descended to the minimum vectoring altitude, vectored to a position in the airport traffic pattern and cleared for a "visual approach" whenever the reported ceiling is at least 500 feet above the minimum vectoring altitude and the visibility is three miles or more. With a "visual approach" clearance, the pilot operating on an IFR

flight plan may deviate from the prescribed instrument aproach procedure and proceed to the airport with visual reference to the surface, maintaining VFR conditions at all times. This procedure will afford a more expeditious service to arriving aircraft and preclude unnecessary vectoring in the final approach course of a published instrument approach procedure.

(3) Clearance for a visual approach is issued when:

preceding aircraft reports sighting the airport and the tower controller has the aircraft in sight, or

(b) An aircraft is positioned behind a preceding aircraft and the pilot of the succeeding aircraft reports sighting that aircraft.

(4) Radar separation is provided from any preceding IFR aircraft until the clearance for a visual approach is issued. Pilots cleared for a visual approach are reminded to advise ATC whenever they are unable to continue following the preceding aircraft and/or they encounter less than basic VFR weather conditions. Radar service will be terminated when the pilot is told to contact the tower. The tower will assign a landing sequence number.

December 1964

: II–30.

ıragraph 4. Change the last line to read "above the ort traffic area."

December 1964

: II–51

ld the following:

EPORTING AIRCRAFT ACCIDENTS, INFLIGHT HAZARDS AND OVERDUE AIRCRAFT

'il Aeronautics Board, Safety Investigation Regulas, Part 320 (in part)).

OTIFICATION

The operator of an aircraft shall immediately, and he most expeditious means available, notify the Civil nautics Board, Bureau of Safety Field Office near- the accident or occurrence when:

(1) As a result of the operation of an aircraft, any on (occupant or nonoccupant) receives fatal or seri- injury or any aircraft receives substantial damage;

(2) Aircraft collide in flight;

(3) The following inflight hazards are experienced:

(a) Fire;

(b) Rapid decompression requiring emergency ac- :

(c) Unwanted or asymmetrical thrust reversal:

(d) Flight control system malfunction or failure:

(e) Inability of any required flight crew member erform his normal flight duties as a result of injury llness.

(f) An aircraft is overdue and is believed to have n involved in an accident.

b. The following information is required if available:

(1) Location;

(2) Date;

(3) Time;

(4) Aircraft make, model, and registration number and nationality;

(5) Names of operator and crew;

(6) Number of persons involved;

(7) Injuries of each person;

(8) Weather conditions;

2. REPORTS

a. The operator shall file a report on CAB Form 453 or 454, available from the Civil Aeronautics Board Field Offices, the Civil Aeronautics Board, Washington, D.C., and the Federal Aviation Agency Flight Standards District Office:

(1) Within ten (10) days after an occurrence for which notification is required in 1 (a) and (b) above;

(2) When, after seven (7) days, an overdue aircraft is still missing;

(3) Upon request of an authorized representative of the Civil Aeronautics Board;

b. Each crew member, if physically able at the time the report is submitted, shall attach thereto a statement setting forth the facts, conditions and circumstances relating to the accident or occurrence as they appear to him to the best of his knowledge and belief. If the crew member is incapacitated, he shall submit the statement as soon as he is physically able.

3. WHERE TO FILE REPORTS

a. The operator of an aircraft shall file with the Field Office of the Civil Aeronautics Board nearest the accident or occurrence any report required by this section involving:

(1) Aircraft having a maximum take-off weight of more than 12,500 pounds or rotorcraft regardless of weight.

(2) Aircraft having a maximum take-off weight of 12,500 pounds or less operated by an air carrier certificated to engage in air transportation in the State of Alaska; and

(3) Aircraft, regardless of maximum take-off weight, where fatal injuries have occurred to any occupant of such aircraft.

b. The operator of an aircraft shall file with the FAA Flight Standards District Office nearest the accident or occurrence any report required by this section involving fixed-wing aircraft with a maximum take-off weight of 12,500 pounds or less except reports which are required to be filed with the Board pursuant to paragraph A above. FAA Flight Standards District Offices are listed on last page of Section II in Airman's Information Manual.

c. Civil Aeronautics Board field Safety Office addresses and telephone numbers are **Anchorage:** P.O. Box 2219, Anchorage, Alaska; BRoadway 2–7001. **Chicago:** Suite 206, 6525 North Avenue, Oak Park, Ill.; VIllage 8–9565. **Denver:** 1549 Emporia Street, Auroa, Colo.; EMpire 6–8249. **Fort Worth:** 100 North University Drive, University Plaza Building, Fort Worth 7, Tex.; EDison 6–2463. **Kansas City:** 912 East 63d Street, Kansas City, Mo. 64110; EMerson 3–2220 and 3–2221. **Los Angeles:** Los Angeles International Airport, 5820 Avion Drive, Room 228, Los Angeles 45, Calif.; SPring 6–0117. **Miami:** P.O.

x 48-0931, Miami International Airport, Miami 48, a.: TUxedo 5-2445. **New York:** Federal Building, Room l, New York International Airport, Jamaica, Long and, New York; 995-3333. **Oakland:** P.O. Box 2386, kland Airport Station, Oakland 14, Calif.; LOckhaven 290. **Seattle:** Room 202, Administration Building, King unty Airport, Seattle 8, Wash.; PArkway 3-9474.

January 1965

E II-51:

OAST GUARD RESCUE COORDINATION CEN-RS New Orleans, La. change telephone number from 2-9103 to: 527-6225.

December 1964

AGE III-72:

nsert the following item in lieu of current entry:

New Flight Assistance Service Facility Tests

he FAA is testing a modernized FSS configuration field test of two new types of low cost facilities for ht assistance service at local airports. The tests will end through June 30, 1965.

ight Service Facility (FSF): An FSF is operated by FAA t service specialists during the busy hours of each . It is equipped with transmit/receive on 121.7 mcs. airport advisory service and 121.5 mcs. for emer-cy communications; weather observing instruments; ther teletypewriters; and communications into the system. FSFs provide airport advisory service request); aviation weather observations; pilot fing; and flight plan handling. Toll-free Communi-ons with the control FSS will be available 24-hours y. During the hours the FSF is operating, pilots ling or departing the FSF airport may contact the for airport advisory service when within 15 nauti-miles. Call and listen on 121.7 mcs. Use the name the FSF airport followed by the word "radio": mble Radio this is N1234V over."

he location of test FSF with control FSS in paren-is and local hours of FSF operation are:

Delta Municipal Airport, Delta, Utah (Salt Lake City FSS) 0600-1800.
Kimble County Airport, Junction, Texas (San Antonio FSS) 0600-1800.
Manhattan Municipal Airport, Manhattan, Kansas (Salina FSS) 0600-1800.
Crescent Beach Airport, Myrtle Beach, S. C. (Florence FSS) 0600-1800.

rport Information Desk (AID): An AID is an unmanned lity designed for pilot self-service briefing, flight ning and filing of flight plans. A desk and flight ning material will be available at all AID locations, lly during daylight hours. In addition, some AIDs have weather instruments and weather teletype-ers. Toll-free communications with the control FSS be available 24 hours daily.

he AID test sites with control FSS shown in paren-is are:

Aiken, South Carolina—(Florence, South Carolina)
Altus, Oklahoma—(Wichita Falls, Texas)
Aspen, Colorado—(Denver, Colorado)
Auburn, Alabama—(Montgomery, Alabama)
Frankfort, Kentucky—(Lexington, Kentucky (S/T)
Jamestown, New York—(Bradford, Pennsylvania)
Kerrville, Texas—(San Antonio, Texas)
Laconia, New Hampshire—(Montpelier, Vermont)
Lakeland, Florida—(Tampa, Florida)
Liberal, Kansas—(Garden City, Kansas)
Marion, Indiana—(Indianapolis, Indiana)
Mt. Vernon, Illinois—(St. Louis, Missouri)
Pittsfield, Massachusetts—(Albany,New York)
Ruidoso, New Mexico—(Roswell, New Mexico)
Tacoma Industrial Airport, Washington—(Seattle, Washington)
Twin Falls, Idaho—(Burley, Idaho)

Pilots are invited to use and evaluate these services. Comments and suggestions should be sent to:

Director, Air Traffic Service
Federal Aviation Agency
800 Independence Avenue, S.W.
Washington, D.C. 20553

February 1965

●PAGE III-93—Add New Oil Burner Route

NEW YORK/VERMONT
CLEVER CHAP
Effective March 4, 1965
(Replaces Short Doll Route)

Aircraft shall cross 43°57'N, 76°04'W (Watertown, N.Y. VOR) at FL 290; descend cross 44°11'N, 75°52'W at FL 250 or above; cross 44°16'N, 75°47'W at FL 240; direct 44°22'N, 75°42'W; cross 44°22'N, 75°30'W at FL 190; cross 44°13'N, 75°12'W at 14,000' MSL; cross low level entry point 43°45'N, 74°48'W at 9000' MSL; maintain 9000' direct 43°39'N, 74°39'W direct 43°38'N, 74°30'W direct 43°35'N, 73°55'W descend to cross 43°34'N, 73°46'W at 7000' MSL maintain 7000' direct 43°31'N, 73°10'W left turn to 43°36'N, 73°01'W to 43°43'N, 73°05'W direct 44°33'N, 74°16'W descend to cross 44°37'N, 74°24'W at 5000' cross 44°37'N, 74°30'W at 4000' maintain 4000' to 44°28'N, 74°44'W descend to cross 44°26'N, 74°47'W at 3500' MSL; direct at 3500' MSL to enter bomb run corridor at 44°15'N, 75°05'W.

Short Look and Lay Down—After passing 44°15'N, 75°05'W aircraft shall operate through bomb run corridor between 1500' MSL and 5000' MSL. Minimum IFR altitude through the bomb run corridor is 3500' MSL (the bomb run corridor is 5 SM either side of centerline from 44°15' N, 75°05'W to 43°53'N, 75°41'W). After exiting the low level route at 43°53'N, 75°41'W aircraft shall turn right and climb so as to cross 43°52'N, 75°48'W at 6000' MSL. Maintain 6000' MSL direct 44°00'N, 75°51'W; direct 44°10'N, 75°51'W, direct 44°27'N, 75°22'W; climb cross 44°30'N, 75°17'W at 13,000' MSL or below; cross 44°41'N, 74°58'W at 14,000' (Burlington, Vt. VOR 298 radial) cross 44°39'N, 74°45'W at 16,000' (Massena, N.Y. VOR 197 radial); cross 44°35'30"N, 74°21'W at FL 200; climb to cross 44°33'30"N, 74°09'W at FL 230, maintain FL 230 direct 44°24'N, 73°11'W (Burlington, Vt. VOR).

Re-Entry—After completing the bomb run, aircraft scheduled for an additional bomb run shall, after exiting the route at 43°53'N, 75°41'W; turn right and climb so as to cross 43°52'N, 75°48'W at 6000' MSL; maintain 6000' direct 44°00'N, 75°51'W; direct 44°10'N, 75°51'W direct 44°22'N, 75°30'W direct 44°34'N, 74°57'W at 6000' MSL; turn right to 44°34'N, 74°48'W descending to cross 44°26'N, 74°47'W at 3500' MSL, thence via the Clever Chap route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and

rate between the VFR altitudes indicated between the owing points: From 44°37'N, 74°30'W to 43 53'N, 41'W. During daylight hours some VFR operations l be flown 800' above the immediate terrain. The er VFR altitude is the minimum altitude that will be ched on each route segment during daylight hours.

ternate Entry—Aircraft shall cross 43 57'N, 76 04'W atertown, N.Y. VOR) at FL 290; descend, cross 44°11' 55'52'W at FL 250 or above; cross 44 16'N, 75 47'W 'L 240; direct 44°22'N, 75°42'W; cross 44°22'N, 75 30' at FL 190. Cross 44°13'N, 75°12'W at 14,000' MSL; 'inue descend to cross 44°13'N, 74°41'W at 9000' MSL; ntain 9000' direct 44°13'N, 74°12'W; start descend, s 44°13'N, 74°04'W at 7000' MSL; maintain 7000' L direct 44°20'N, 73°58'W, thence via the Clever Chap :e.

ute Width—The entire low level route is reduced to d either side of centerline.

urs of Operation—0000Z to 2359Z Monday through Sun-

February 1965

GE III–96—Change Oil Burner Route

"FUNNY BOY"

Revised Effective March 4, 1965

d paragraph, line 5—

s 23°00'N, 71°33'W at FL 90 or below; cross 22°51'N, 8'W at 1400' MSL (the route entry point); maintain ' MSL direct 22°48'N, 70°58'W; turn right to 9'N, 70°53'W; direct 22°04'N, 71°03'W.

ort Look and Lay Down—After passing 22°04'N, 71°-7', aircraft shall maintain between 1400' and FL 30 ugh the bomb run corridor (5 SM either side of cen-ne from 22°04'N, 71°03'W to 21°10'N, 71°18'W). r exiting the route at 21°10'N, 71°18'W, aircraft l turn left, cross 21°03'N, 71°14'W at FL 30; main-FL 30 to 21°06'N, 71°08'W, direct 21°35'N, 71°00'W; t climb, cross 22°00'N, 71°02'W at FL 110 or above s 22°40'N, 71°06'W at FL 250 or above; left turn to 8'N, 71°16'W; cross 22°45'N, 71°30'W at FL 290 or signed.

Entry—line 3

r exiting the low level route at 21°10'N, 71°18'W, left cross 21°03'N, 71°14'W at FL 30; maintain FL o 21°06'N, 71°08'W; direct 22°01'N, 70°53'W; turn descend to cross 22°04'N, 71°03'W at 1400'; thence he published route.

February 1965

GE III–104—Change Oil Burner Route:

ZERO HOUR

Revised Effective March 3, 1965

rcraft shall cross 34°22'N, 105°40'30''W (Corona, Mexico VOR) (reporting point) at FL 250 or as ned by ATC, then descend direct to cross 34°33'N, 33'W at or below FL 230; then descend direct to 34°40'N, 105°28'W at FL 220; then descend direct ross 34°45'N, 105°12'W at or below 17,000' MSL; descend direct to cross 34°53'N, 104°48'W at 10,000'; then descend direct to cross the route entry point 47'N, 104°29' W at 7000' MSL, maintain 7000' MSL direct to 35°24'N, 104 08'W; then 7000' MSL direct to 36 22'N, 103 00'W; then 7000' MSL direct to 36 37'N, 102 49'W; then descend direct to cross 36 49'N, 102 40'W at 6000' MSL; then 6000' MSL direct to 37 06'N, 102°-27'W; then 6000' MSL direct to 37 36'N, 103 00'W.

Short Look and Lay Down—After passing 37 36'N, 103 -00'W, aircraft shall maintain between 6000' MSL and 7000' MSL thru the bomb run corridor (5 SM either side of centerline from 37 36'N, 103 00'W to 37 57'N, 103°-22'W to 38 06'N, 103 25'W). After exiting the route at 38 06'N, 103 25'W climb direct to cross 38 09'N, 103°-26'W at 8000' MSL, turn right, maintain 8000' MSL to 38 15'N, 103 10'W, then 8000' MSL direct to 38 02'N, 102 55'W, then climb direct to cross 37 53'N, 102 45'W at 9000' MSL, continue climb direct to cross 37 30'N, 103 08'W at FL 200; then maintain FL 200 direct to Tobe VORTAC.

Re-Entry—After completing the initial bomb run aircraft that are scheduled to execute an additional bomb run shall, after exiting the route at 38 06'N, 103 25'W, climb direct to cross 38 09'N, 103 26'W at 8000' MSL, maintain 8000' MSL right turn to 38 15'N, 103 10'W, then 8000' MSL direct to 37 40'N, 102 30'W; then turn right descending to cross 37°24'N, 102°47'W at 6000' MSL; thence via the published route.

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3000', visibility 5 miles, the pilot may descend VFR and operate VFR between the VFR altitudes indicated on the chart between the following points: From 35°30'N, 104°01'W to 38°06'N, 103 25'W. During daylight hours, some VFR operations will be flown 500' above the immediate terrain. VFR operations conducted during the hours of darkness will not be flown lower than 800' above the terrain. The lower VFR altitude shown on the chart is the minimum that will be reached on each segment during daylight hours.

Alternate Entry—Aircraft shall cross 36°19'N, 101°51'W (Amarillo VORTAC 340/62) at FL 230, or as assigned by ATC, then descend direct to cross 36°34'N, 102°03'W at 17,000' MSL; then descend direct to cross 36°44'N, 102°-11'W at 14,000' MSL; then descend direct to cross 37°-06'N, 102°27'W at 11,000' MSL; then descend direct to cross 37°20'N, 102°42'W at 6000' MSL; thence via the published route.

Route Width—The route width from 34°47'N, 104°29'W to 35°24'N, 104°08'W is reduced to 5 SM on the east side of centerline, and from 37°36'N, 103°00'W, to 38°06'N, 103°25'W, the route is reduced to 5 SM on the west side of centerline.

Hours of Operation—24 hours daily, 7 days per week.

February 1965

PAGE IV–42—Change as follows:

Second column, second entry under state of Idaho—move MACKAY 1 SE to page IV–45 second column 8th entry from bottom and substitute MACKAY 1 SE for AMERICAN FALLS, AMERICAN FALLS 2 NE. The latter moves to page IV–42 second column, second item under state of IDAHO.

January 1965

U.S. GOVERNMENT PRINTING OFFICE : 1965 O - 762-825

AIRMAN'S INFORMATION MANUAL

NOTICES TO AIRMEN

SECTION III A

4 FEBRUARY 1965

FEDERAL AVIATION AGENCY

·336 O - 65 - 10

NOTICE TO SUBSCRIBERS

Many comments have been received from you, the subscribers, containing constructive criticism and offering many fine suggestions for improvement of the Airman's Information Manual (AIM). We appreciate your interest and initiative and assure you that we will evaluate each comment received for possible application to the manual. Each suggestion that furthers the purpose of the AIM and that is feasible on a cost vs. benefit basis, will be incorporated as soon as possible. In this regard, we must remember that each new feature added that increases the size of the manual and related production costs may result in increased subscription cost to be borne by you, the user. We, therefore, ask that you evaluate your suggestions on the basis of "need to know" vs "nice to have" and what you are willing to pay for. Also, information of value to you in your office or business that cannot be identified as having operational value to pilots, cannot be published.

Many of your comments reflect shortcomings on our part in explaining the innovations of the AIM. Some of you requested that the Air Navigation Radio Aids (ANRA) Section of the Airman's Guide be included in the AIM, as you constantly referred to this section for VOR frequency information, etc. It is obvious by your comments that this is one of the areas in which our explanation fell short and we will now try to rectify this situation.

In initial development of the manual, the main purpose has been that the AIM would be developed as a pilot's operational manual containing information that would supplement the data shown on charts. The AIM would contain terminal and preflight planning data, while charts would provide enroute data, to the fullest extent possible, to minimize the need to refer to other sources while enroute. This concept was proposed by you, the users. The next objective was to reduce duplication between charts and the AIM data as much as possible. This was to keep the cost of the AIM as low as possible and to establish a true relationship between the AIM and the charts.

Next to three-hole punching the Airman's Guide, the other most often asked for changes in the Airguide were enlargement of the type size (print) and consolidation of the many separate tabulations that had to be consulted to adequately flight plan. Nearly every comment on this latter item suggested all information in each tabulation be combined into a single listing of all data for each airport. This has been done as is reflected in Sections IV and IV–A. All items contained in the Airman's Guide ANRA Section have been included in the AIM, except for VOR and LF radio range information. For further clarification, the following tabulation indicates items, by title, contained in the Airman's Guide and their location in the AIM:

Airman's Guide	*AIM*
Radar Services (ASR, PAR)	Section IV–A (by airport)
ILS	Section IV–A (by airport)
Control Tower	Section IV–A (by airport)
VHF/DF	Section IV–A (by airport)
Flight Service Stations (FSS)	Section IV–A (complete listing)
ARTC Center Frequencies	Section IV–A (comple listing)
VOR Radiated Test Patterns (VOT)	Section IV–A (by a port)
Transponder Beacons (BCN)	Section IV–A (by a port)

(Included in Section IV–A of the AIM, but not p viously provided in Airguide, are identification of ra call and specific frequencies assigned to Approach C trol, Departure Control, Ground Control, Clearance D livery, Traffic Information Service, VFR Advisory Se ice, etc.).

Therefore, of all former ANRA data, only the V and LF radio range information has not been retained the AIM. Reasons for this decision are as follow

1. Enroute information should be published charts, to the extent possible. Radio ranges fall in t category of enroute aids (approach and letdown us ranges is provided for by Instrument Approach Char therefore, charts will be the primary user source this information.

a. The section of the AIM (IV–A) containing cility data is reproduced every 28 days on the identi cycle (effective date) as the Enroute Charts. Chan to NAVAIDs are applied directly to each revision Enroute Charts for use of the IFR pilot rather th published in AIM. Updating of NAVAID information the VFR pilots charts was provided for by the addi of the Visual Navigation Chart Bulletin in Section I (III–34) of the AIM. This Section, which is also p lished every 28 days, will indicate, cumulatively, changes to the NAVAIDS, etc., shown on the curr edition of each Sectional Chart, until the information published on the next issue of the particular chart. Th user requested feature provides the VFR pilot with t same cycle of currency of information (28 days) as IFR pilot.

2. Biweekly Notices to Airmen, Section III–A of AIM, and teletype NOTAMs update both the Enro Charts and the Visual Navigation Chart Bulletin tween AIM publication dates.

3. Application of the foregoing concept has, we lieve, provided the user with current and correct NAVAID data in a more desirable operationally u able form.

In developing this manual, the FAA has attempted provide for all user identified operational requirem to the fullest extent possible. It must be recognized th FAA has obligations to all aviation and that some r quirements applicable to a limited segment of aviati cannot fairly be accommodated at the expense (cost a volume) of all others.

The AIM will be in a test and evaluation status the next two years and will be revised to accommo new and changing evaluated user needs. The AIM published for the benefit of you, the user, and is su ject to change in accordance with your identified nee However, we ask that you give this new publication fair evaluation by becoming familiar with all its fe tures and uses. Following this period of indoctrinati please tell us what you want changed and what y want to stay as is.

Section III—A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the l. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or re-sd Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

E: Data printed entirely in bold face type are considered permt and will usually be cited only once. Such information ld be noted on charts and records. Temporary information is nerally cited until the condition is no longer in effect.

E: Data is arranged in alphabetical order by State (and within state by City or locality).

OR REVISED DATA: New or revised data are indicated by lining the first line of the affected item. The new information t necessarily limited to the underlined portion, which is used to attract attention to the new insert.

ALABAMA

'OC LA BATRE, BAY VIEW ARPT: Paved 3000' ag strip 75'S and parallel to turf rnwy. P-line each le of drag strip and wire across strip 75' from E end. /S turf rnwy under constr, covered with stumps not be used for acft operns.

)OKWOOD RDO: About March 4, VOR will be msnd. Ident: "BWA." Freq: 111.0 mc Class: L-VOR. Lctd at lat 33°14'22", long. 87°14'35". Varion 4°E. Monitoring category 1. Controlled by Birmingham FSS.

'HERINE, MARTIN FLD: Clsd until spring.

RUCKER: Extsv IFR and VFR student trng conicted in area bounded by V-115 W, V-241 S, V-70 N d V-241 E. Normal hrs of operns 0600-2400 Mon-Fri om surface to 10,000'.

MITH MUN ARPT: 319' (846' MSL) lgtd antenna twr constrd nmi NNE (030°T) at Lat 35°26'17" Long 94°17'09".

3ILE, BROOKLEY AFB: Caution, effective immedily and until further notice all aircraft are warned extensive high performance jet (F-105) traffic in the llowing area during dalgt hrs only: From the surce to 5000' MSL over the Mississippi Sound from a int 30°15'N, 88°04'W to a point 30°15'N, 88°50'W. ncerned aircraft will be flying a race track pattern tween the above listed coordinates for the purpose of ntour map/terrain avoidance radar calibration. herefore, the pilots in the F-105 aircraft will be ited to the amount of visual surveillance they can ve to air to air separation under VFR conditions.

.MA CRAIG AFB: Extsv jet student trng conducted ring dalgt hrs and occasional ngts Mon-Fri from surce to 6000' MSL. Craig ctl zone saturated dalgt hrs to 00' MSL during student trng. VFR acft should conct Craig twr on 236.6 or 119.5 mc for tfc advisories. raig Twr is avbl for lndg advisories for acft lndg Seld. Clsd excp for ofl bus. clsd to transit aero club acft.

TUSCALOOSA, VAN DE GRAAFF ARPT: 240' (462' MSL) lgtd chimney being constrd 3 nmi E (097° T) at lat 33°12'49, long. 87°32'45".

ARIZONA

BOUSE ARPT: Clsd until aprxly March 1965.

CAREFREE ARPT: Ben inop UFN.

ELOY—CASA GRANDE, IMPERIAL VALLEY CATTLE COMPANY OF ARIZONA 2 ARPT: New. Lctd 12 mi S Casa Grande. Lat 32°-42'42", long 111°41'48". Elev: 1525'. One rnwy E/W 5200 x 150' dirt. E apch restricted by p-line.

FT HUACHUCA: See Yuma Special Notice.

GILA BEND: See Yuma Special Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

MESA, FALCON FLD. Until Feb 20, 1965, small rocket test firing within one mile radius of a point 3 smi N maximum height 2,500 AGL. One day per week 1100 MST to 1500 MST. Contact Phoenix FSS for details.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hidensity jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi

radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000′ MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3–21 for unknown duration. Usable length lndg and tkof rnwy 12–30 is 2900′.

SILVER BELL, CASA GRANDE IMPERIAL VALLEY CATTLE COMPANY OF ARIZONA 1 ARPT: New. Lctd 28 mi S of Casa Grande. Lat 32°28′17″, long. 111°45′09″. Elev: 1700′. One rnwy NW/SE 4200 x 200′ dirt. Attended 24 hrs. Associated FSS is Phoenix.

TUCSON, RYAN FLD: About Nov 16, all rnwys will be clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000′ MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307. Efctv Jan. 15, 1964 to Jan 15, 1965 the flwg R–2303 Yuma East restricted area is established: Bndrys: beginning at 33°, 114°17′20″; thence N along State Highway 95 to 33°28′, 114°13′; 33°24′, 113°39′; 33°13′12″, 113°21′36″; 33°07′17″, 113°24′10″; 33°02′, 113°33′50″; 33°02′, 113°56′30″; 33°00′, 114°11′; to point of beginning. Designated Altitudes: 1500′ above the surface to 20,000′ MSL. Time of Designation: Continuous, Jan. 15, 1964 to Jan. 15, 1965. Controlling Agency: Federal Aviation Agency, Los Angeles ARTC Center. Using Agency: Commanding Officer, Yuma Proving Ground, Yuma Ariz.

ARKANSAS

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

WILSON ARPT: New. Lctd 1 mi W at lat 35°34′00″, long. 90°03′40″. Elev: 228′. One rnwy 2600′ turf. 80/87 fuel only. Unattended.

CALIFORNIA

BOULEVARD, ROUGH ACRES RANCH ARPT: Open to public. Lctd 2.5 smi N at lat 32°42′, long 116°16′. Elev: 3625′. One rnwy 5–23 2500 x 100′ dirt. Unattended.

BURBANK, LOCKHEED AIR TERMINAL TWR: Feb 1, ILS lclzr and glide slope rnwy 7 will be shutdown until aprxly Mar 5 for mod.

CORNING MUN ARPT: Clsd until aprxly Feb 10.

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

EVERGREEN RDO: About Feb 4, H facility will be decomsnd.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″ clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; 36°34′45″, 121°48′35″; 36°35′45″, 121°49′45″; to point of beginning. Controlling agency: Commanding Gen Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

HAWTHORNE ARPT: Rnwy lgts, REIL and txwy lgts will be inop 2300–0700 nightly UFN.

HERLONG ARPT: New. Lctd 2 mi W of lat 40°08′20″, long 120°10′40″. Elev: 4050′. One rnwy 6–24 2500 x 30′ dirt. 80/87 fuel. Unattended. Rnwy soft when wet. Associated FSS is Reno, Nev.

HOUGHTON LAKE HEIGHTS, HOUGHTON LAKE STATE ARPT: Skis only during winter.

HYAMPON ARPT: Clsd UFN due flood.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repair. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LONG BEACH RDO: TACAN portion of VORTAC not usable for apchs to Los Alamitos NAS acct crs roughness.

LOS ANGELES ARTCC: En route radar service avbl 10 nmi radius Las Vegas VORTAC except unavailable V8 from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V5 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J10 FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 30 miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles S Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: A 90-day test is being conducted by the LAX FSS to evaluate the effectiveness of a new concept in transcribed weather broadcast script. The new concept differs from present procedures in that meteorological and notice to Airmen Data is broadcast as applied to six commonly-traveled routes out of the Los Angeles Metropolitan area. Enroute weather reports follow the weather forecasts for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes are spoken. Dissemination continues to be over the Los Angeles "HOMER"; also available by telephone over Sprint 6–1640, Poplar 2–4111, Davis 3–4626 and via a speaker "Listening-only" interphone circuit which parallels the present "fastline" circuit serving subscribers at Van Nuys Airport, Lockheed Air Terminal in Burbank, San Fernando Airport, Whiteman Air Park in Pacoima and Rancho Conejo Airport near Thousand Oaks.

MODESTO CITY-COUNTY ARPT: All pilots must call Stockton Apch Ctl prior to conducting IFR flight operations in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

POINT ARGUELLO: Civil acft desiring to transit W-289 call Navy Point Arguello on 122.5 mcs (guard 24 hrs) and listen for reply on 124.4 mcs.

ECREST, VALLEY VIEW ARPT: Clsd to the public.

ERSIDE MUN ARPT: Efctv Dec 10, 1964 Riverside ntrol zone will be efctv from 0500 to 2130 local time. l pilots must contact March Apch Ctl prior conducting R flight operns in the Riverside control zone.

TA BARBARA RDO: Width of Naples FM at interpt alt on ILS lclzr crs 320° or slightly wider than ndard ILS OM. During VOR outages or shutdowns r maintenance, flt checks reveal numerous usable nals being emitted by acft rdo shops in Los Angeles a on Santa Barbara VOR freq 114.9 mc are to be disarded.

ALIA MUN ARPT: Control zone will be efctv from -2100 lcl time. All pilots must contact Fresno ch Ctl prior to conducting IFR flight operns in the ntrol zone.

COLORADO

OMFIELD, JEFFERSON CO ARPT: First 3000' of wy 11 plus associated txwy clsd for resurfacing, uslength both directions 3000'. Ctc unicom for instrucns.

VER, LOWRY AFB: Ctld firing (demolition) area in e daily except Sat, Sun and holidays 1430–2330Z with a radius of 2500' of point lctd 104°41'11"W, 39°36'-"N up to 1000' above surface.

LE: Ctld firing for use of Camp Hale. Area is 5 i radius from point lat 39°27', long 106°19'20", x ordinate of firing 15,000' MSL. Time of use: tinuous 24 hrs daily. Controlling agency: Comnding General, Fort Carson.

OTT RDO: H facility ident: "ELL" decomsnd.

OVER RDO: About March 4, H facility will be comsnd.

RA, LAMA ARPT: Reactivated. Lctd 1.5 mi SE of lat 37°-30", long. 105°56'10". Elev: 7600'. Two gravel rnwys 3–3600 x 100 and 7–25 2500 x 200'. Rnwy 21 apch rected by p-line glide angle 0–1 rnwy 25 apch restricted trees. Associated FSS is Trinidad. (Formerly known as Sand Arpt).

BLO: Controlled Firing (demolition) area for use of Pueblo Ordnance Depot established within the folsing described area: bounded on N by lat 38°22'00"; long 104°21'22"; S, lat 38°18'00"; W, long 104°22'-'. Hrs of usage: 0900–1600 MST, Mon-Fri. Max alt 0' above the surface.

CONNECTICUT

ERBURY ARPT: Clsd.

DELAWARE

DLETOWN, SUMMIT AIR PARK: E/W rnwy clsd til aprxly April 1965.

MINGTON, GREATER WILMINGTON AIRPORT: c. No. ILS–1, Amdt. 8, efctv 8 Aug 64. During the iod of the West Chester VORTAC shutdown, the lowing temporary missed approach procedure will be effect: If visual contact not established upon descent authorized landing minimums, or if landing not acplished. make climbing left turn to 1600' and rn to Wilmington LOM. Hold South, one-minute ht turns, inbound crs. 014 degrees.

DISTRICT OF COLUMBIA

SHINGTON, MT VERNON: Low flying acft requested avoid immediate vcnty Mt. Vernon estate lctd W bank tomac River 10 mi S Washington Natl Arpt.

WASHINGTON NATL ARPT: The Weather Bureau and the Federal Aviation Agency will jointly institute a runway visibility observation program for runways 18, 36 and 15. Whenever the runway visibility system serving runway 36 is inoperative with visibility one and one half mile or less or runways 18 and 15 are in use for landing aircraft and the visibility is at or below one and one half mile an observer will be stationed at the approach end of the landing runway and will report visibility values manually in one quarter mile increments. These values shall be used in conjunction with reported ceiling and will be mandatory for the runway being served and should not be construed as runway visual range (RVR) values.

WASHINGTON NATL ARPT: JET POLICY FOR WASHINGTON NATIONAL AIRPORT—Due to limited ground handling facilities at the Washington National Airport, flight operations of only those turbojet aircraft that meet the following criteria can be accomodated: A. Except under emergency conditions, only approved types of turbojet aircraft of short or medium range (1) are engaged in corporate, private charter or rental type operations, and (2) solely intend to utilize the Airport's General Aviation ground service facilities. B. Currently approved types of medium and short range turbojet aircraft are as follows: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. Short or medium range turbojet aircraft of types not listed above must secure advance authorization from the Airport Manager. Requests for such authorization should be made at least 48 hours in advance of the planned aircraft arrival at the Airport. D. Because of limited capabilities, the Airport cannot accomodate operations of turbojet aircraft for proficiency or practice take-off or landings.

FLORIDA

TRIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC SPECIAL NOTICE: Non-commercial acft are prohibited from landing in HAITI, unless specific prior authorization is obtained. Seven working days are normally required to obtain clearance. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergencyy fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

COCOA, CENTRAL BREVARD COUNTY ARPT: Fld will be clsd until aprxly Feb 2, 1965 for constr.

FT. MYERS, LEHIGH ACRES WEST ARPT: 995' (999' MSL) lgtd TV twr being constrd 6 nmi SE 129° T) at lat 26°35'09", long 81°37'53".

JACKSONVILLE, IMESON ARPT: Caution, all pilots making ILS apchs to arpt, a bridge lctd aprxly 1¼ mi SW of apch end of rnwy 5 lgtd very brightly at ngt, could give pilots false identification as being a rnwy especially during low ceilings or poor visibility conditions.

PENSACOLA: Intensive student conventional and jet VFR trng activity crossing V22 at 11,000' MSL btn Navy Saufley (NUN) VOR and Navy Whiting VOR 135 radial; and within a radius of 3 nmi Whiting NAAS and Saufley NAAS at and below 2500' MSL. Suggested alter course or altitude to avoid these areas. Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

ST. AUGUSTINE-FAIRCHILD MUN ARPT: Rnwy 13–31 clsd until aprxly Jan 26, for resurfacing.

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft rcvg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13–31 only rnwy in use. Threshold displaced 1215′ from end of rnwy 13 and 1000′ from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1960′.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R–2915A, R–2915B and R–2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

GEORGIA

CAIRO MUN ARPT: Clsd due constrn until aprxly May 1, 1965.

CARROLLTON MUN ARPT: Clsd for resurfacing.

COCHRAN ARPT: Clsd until aprxly May 1965.

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

STATESBORO MUN ARPT: 1000′ S end rnwy 18–36 to intsxn of rnwy 13–31 clsd for unknown duration. Remaining rnwy rought usable length 4200′ both directions.

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.

CALDWELL, HUBLER FLD: New. Lctd 1 mi SW Middleton at lat 43°42′, long. 116°37′. Elev: 2400′. One rnwy 12–30 2800 x 110′ gravel. Caution p-line E. Major A and P repairs. 80/87 fuel only. Attended daigt hrs. Associate FSS is Boise.

COTTONWOOD MUN ARPT: Clsd during winter months.

CRAIGMONT ARPT: Clsd during winter months.

CAMAS COUNTY ARPT: Clsd for unknown duration.

CAREY MUN ARPT: Clsd for unknown duration.

DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.

ELK RIVER ARPT: Clsd aprxly May 1965 due winter months.

EMMETT, LANHAM FLD: New. Lctd 2.5 smi W at lat 43°52′30″, long 116°33′. Elev: 2300′. One rnwy E/W 2400 x 50′ turf. Arpt clsd until aprxly May 5, 1965. Associated FSS is Boise.

MAGIC RESERVOIR AIR STRIP: Clsd for unknown duration.

NAMPA, ROBERTSONS ARPT: New. Lctd 4 mi S at at lat 43°34′, long. 116°33′. Elev: 2500′. One rnwy NW/SE 2600 x 100′ gravel and dirt. SE apch restricteed by p-line. Major A and P repairs. 80/87 fuel only attended daigt hrs. Associated F is Boise.

RICHFIELD, REYNOLDS ARPT: Clsd until May 19

SPIRIT LAKE ARPT: Clsd winter months.

VICTOR MUN ARPT (BENNETT FLD): Clsd UF

ILLINOIS

CHICAGO, HINSDALE ARPT: 200′ (981′ MSL) lgtd microwave t constrd 4 nmi W (270° T) at lat 41°44′58″, long 88°01′57

CHICAGO, HINSDALE ARPT: 180′ (825′ MSL) lgtd microwave t constrd 4 nmi NW (317° T) at lat 41°47′50″, long 87 51′29″.

CHICAGO, MIDWAY ARPT TWR: Radar advisory all acft operg VFR. This service is designed to a pilots to see and avoid other tfc by providing rad tfc info. All VFR acft operg within a 30 mi radius MDW at 10,000′ MSL or below can obtain this servi by ctcg MDW radar on 119.2 mc. On initial ctc ac are required to advise MDW radar of their ap position and alt, heading being flown and their des nation. All tfc will be current altimeter at MD Acft lndg at MDW will be issued wind and rnv info. Tfc transmiting the area will be provided th service ti 4 mi from perimeter of radar scop which time this service will be terminated. Rad service described herein is not to be interpreted relieving the pilots of their responsibility for co tinual vigilance to see and avoid other acft. It provided to aid him in his visual surveillance by callin to the pilots attention pertinent tfc. Pilots are remind that the surveillance radar utilized by controllers do not provide alt info. Pilot participation is not mand tory but is recommended.

PEORIA, GREATER PEORIA ARPT: 5′ unlgtd fence apch end rnwy 22. Arriving acft with proper fr should make initial ctc with apch ctl on 125.8 mc regar less of wea.

POLO, HAMILTON FLD: Closed until further notice d ice and snow.

ROCEHELLE MUN ARPT: 600′ (1440′ MSL) lgtd T twr being constrd 3.5 nmi ENE (070°T) at lat 41 55′18″, long. 88°59′55″.

INDIANA

MARION MUN ARPT: Airport Information Desk (AII comsnd. Hrs of opern 0700–1800 EST daily. A serv A teletype will provide weather info locally at Mario Pilot briefs and other flight services may be obtain locally by visiting the AID facility and using th FAS line provided to the Indianapolis FSS.

ORLEANS ARPT: Clsd to acft over 6000 lbs duri winter months.

SCOTLAND: Controlled explosive demolition is conduct week days 0730–1600, at the U.S. Naval Ammuniti Depot, Crane, Ind in a controlled firing area one nmi diameter lctd 160°/8.7 nmi from Scotland VORTA from the surface to 2200′ MSL.

IOWA

CHARITON ARPK: Clsd for rnwy paving.

MT. LEASANT MUN ARPT: Clsd until aprxly Apr 15.

NEWTON MUN ARPT: NE/SW rnwy clsd.

WASHINGTON MUN ARPT: Clsd until aprxly June 1965.

KANSAS

ENDENCE RDO: Non federal H facil comsnd for IFR use. nt: "IDP". Class: MHW. Freq: 400 kc/T/. Lctd at lat 09'36", long 95°46'19". Owned and operated by city Independence.

:RAL MUN ARPT: Airport Information Desk IID Facility comsnd. Service A weather info avbl D room. Pilot briefs and other flight services obned locally from Liberal by foreign exchange phone, 'A 4-7331) in to Garden City FSS.

NS MUN ARPT: During dalgt hrs agricultural acft tkofs are using nonstandard patns due to proximity congested areas and are proceeding at low altitude : of tfc patn area. Constr on all txwys and ramp as. NW/SE and NE/SW rnwys clsd.

NA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efctv September 1961, is revised as follows effective imliately: Add Note: Radar vectoring to final apach course authorized.

: CITY RDO: H facility ident "SUX" deecomsnd.

:KA, PHILIP BILLARD ARPT: ADF No 1, Amdt. ILS-13. Amdt 17 and ILS-31. Amdt 7 are amended follows, effective immediately: C-dn, two eng or less, kt or less, 600-1 vice 500-1. Unlighted smoke stack 7' msl within circling criteria.

KENTUCKY

T LIBERTY, MORGAN CITY ARPT: Clsd until xly March 15, 1965.

SBURG MUN ARPT: New. Lctd 8 mi N at lat 37°13'20", g 82°52'30"|. Elev: 1990'. One rnwy 17-35 2550 x 75' holt. Unattended. Associated FSS London, Ky.

LOUISIANA

ND ISLE RDO: About March 15, VOR will be nsnd. Ident: "GNI." Freq: 109.4. Class: L-BVOR. d at lat 29°10'26", long 90°06'12". Variation 6° E. nitoring category 1. Ctld by New Orleans FSS.

MA, HAMMONDS AIR SERVICE SEAPLANE SE: 408' rdo twr mrkd and lgtd lctd 0.2 nmi SW.

)AN, BABIN FLYING SERVICE ARPT: New. Lctd W edge. : 10'. One rnwy N/S 2500' turf. 80/87 fuel only. P-line nd. Attended 8AM-5PM. Associated FSS Lafayette.

)AN FLYING CO ARPT: New. Lctd 75 mi WSW. Elev: 10'. rnwy N/S. 2700 x 125' turf. 80/87 fuel only. P-line on nd. Associated FSS Lafayette.

:HITOCHES MUN ARPT: Rnwy lgts inop until xly March 1, 1965

MAINE

HARBOR ARPT: Rnwy 11-29 clsd winters, rnwys 5, 4-22 plowed 3000 x 150'.

E HILL ARPT: Clsd winters.

LOIS FLIGHT STRIP: Clsd winters.

TPORT MUN ARPT: Clsd winters.

:TON INTL ARPT: Rnwy 5-23 plowed winter nths.

SON, ROBBINS FLD: Clsd winters.

EC ARPT: Clsd winters.

:INOCKET MUN ARPT: Rnwy 11-29, txwy and np plowed winter months. Rnwy 16-34 ski operns y, snow banks across 16-34 at intersection with 11-Acft using 16-34 and 11-29 not visible to each ier until apchg intersection.

OLD TOWN MUN ARPT: Rnwy 4-22 clsd winters. Rnwy 15-33 plowed full length and width.

PRINCETON MUN ARPT: Rnwy 6-23 clsd winter months.

WINTERPORT, FERNALD ARPT: Clsd winters.

MARYLAND

ANNAPOLIS SPECIAL NOTICE: Electromagnetic radiation vcnty parabolic antenna at Greenburry Point lat 38°58'22", long 76°27'00", about 2.3 nmi ESE, immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel, acft, pwr service, insts. Pilots of helicopters warned against hovering in vcnty and should avoid apchg closer than ½ mi.

CHESTERTOWN, GILL ARPT: Clsd to transients Dec 15, 1964-March 31, 1965.

COLLEGE PARK ARPT: Open. The abandoned arpt depicted on the Washington Sectional Chart is Erco Fld.

EASTON MUN ARPT: Rnwy 14-32 clsd ngt operns, due lgts inop.

GOLDEN HILL ARPT: Clsd winter months.

PARK HALL ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 242° (M) from the arpt at and below 1200'.

PINEY POINT ARPT: Flight in Restricted Area R-4007 authorized only within one mi radius of arpt and in one mi wide corridor 347° (M) from the arpt at and below 1200'.

STEVENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island lctns. Signs funtion with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BOSTON ARTCC: Nov 24, extended radar enroute tfc ctl service will apply to acft departing from destined to Concord Mun, Hartness Mun, Laconia Mun Airports while enroute via portions of Blue 63, V-141, V-141E, V-93, V-39, V-151, V-151W, V-1697 and V-1695. Normal clearance limit is arpt of destination.. Primary freq for this service is 127.3, or 354.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd at Saratoga Springs, N.Y. peripheral site.

BOSTON, LOGAN ARPT: All standard instrument apch procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorized from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. CAUTION: 505' bldg 1.7 mi W of arpt.

OAK BLUFFS ARPT: Clsd winter months.

MICHIGAN

MICHIGAN: The following arpts are clsd for unknown duration due to winter months. Cheboygan, Marx Fld.; Munising, Hanley Fld.; Houghton, Sands Arpt.

ALPENA SPECIAL NOTICE: Control zone and transition area effective from 0800-1600 hrs, local time daily. Feb 18 hrs will be 0800-2000.

ALPENA, PHELPS-COLLINS ARPT: Rnwy 12–30 clsd to all operns winter months.
BATTLE CREEK—KELLOGG FLD: Proc. No. ILS–22, Amdt 1 is revised as follows, effective immediately: Basic S-dn minimums Runway 22, 200-½.
BENTON HARBOR: Efctv Jan. 1, 1965, control zone 0730 to 2230 local time.
BOYNE CITY MUN ARPT: NW/SE rnwy clsd UFN.
CLIO, WESTPORT ARPT: No snow removal, ctc Flint FSS for current info.
DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200–1800 EST within 1 mi radius of lat 45°58′00″N long 83°47′30″W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.
FENTON, AERO ACRES ARPT: No snow removal, ctc Flint FSS for current info.
FLINT, BISHOP ARPT: Caution, small herd of deer on the S half of fld.
FRANKFORT CITY-COUNTY ARPT: Rnwy 1–19 clsd for winter due to snow.
ELMIRA, KANDAHAR ARPT: No snow removal during winter months.
GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00′48″, long 84°41′30″, Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1)
GAYLORD, OTSEGO CO ARPT: Rnwy 18–36, no snow removal during winter months.
HESSEL ARPT: No snow removal during winter months.
HILLMAN ARPT: Open ski equipped acft only winter months.
HOUGHTON LAKE, ROSCOMMON CO ARPT: Rnwys 18–36, 4–22 clsd to all but ski operations for the winter due to snow.
INDIAN RIVER, CAMPBELL MUN ARPT: No snow removal during winter months.
LAPEER, DUPONT LAPEER ARPT: Ctc Flint FSS for current info during winter months.
LEWISTON ARPT: Open ski equipped acft only winter months.
LUZERNE, LOST CREEK SKY RANCH ARPT: Open to ski equipped acft for the winter months.
MANISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd UFN.
MENOMINEE RDO: Control zone efctv immediately from 0700–2030 hrs local time daily UFA.
MIO ARPT: Open to ski equipped acft only for the winter months.
MUNISING, HANLEY FLD: Clsd until aprxly May 1965.
NEWBERRY, LUCE COUNTY ARPT: No snow removal during winter months.
OWOSSO CITY ARPT: Ctc Flint FSS for current info during winter months.
SAGINAW MUN ARPT: Clsd to all ngt operns UFN.
SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 EST in limestone quarry within a 1 mi radius of lat 46°04′N, long 84°18′W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200′. AGL (3000′ MSL.)
STAMBAUGH CITY ARPT: Clsd until further notice.
TRAVERSE CITY ARPT: Rnwys 13–31 and 5–23 clsd for the winter.
VANDERBILT, SUNGLENN ARPT: No snow removal during winter months.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.
BEMIDJI: Efctv Jan 1, 1965, control zone 0730 to 2[illegible] local time, 0700–2000 until Jan. 1.
BRAINARD: Efctv Jan 1, 1965, control zone [illegible] 1900 local time, 0700–1930 until Jan. 1.
COOK MUN ARPT: Closed winters.
DEER RIVER, BOWSTRING TOWNSHIP ARPT: Closed winters.
DEEP RIVER MUN ARPT: Closed winters.
ELY MUN ARPT: Clsd to wheeled acft. Not plowed UFN.
EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt. Ctc Hibbing FSS for blasting schedule.
LITTLE FORK MUN ARPT: Clsd to wheeled acft winter months.
LONGVILLE MUN ARPT: NW/SE rnwy plowed during winter months.
MINNEAPOLIS ARTCC: Radar service in U.S. controlled airspace along J500 btn Gore Bay, Ont and Lakehead, Ont and along J101 from Sault Ste Marie, Mich to 20 nmi north of Greenbay Wisc. now provided from Minneapolis ARTCC. Due to equipment characteristics Center unsable to vector acft to avoid adverse conditions along J90 and J16 btn 25W FSD and 33SE SPI; along J32 btn 70NE ABR and 32E DPR; and along J btn 50E ABR and 80NW ABR. Enroute radar service was inaugurated within the Minneapolis advisory area E of a line from a point on the U.S. Canada bndry 126 nmi NW of the Sault Ste Marie, Mich VOR 47°40′, 86°45′ thence SW to the Houghton, Mich VOR thence SW to 46°39′, 89°45′ thence via the Minneapolis apch bndry to the common Minneapolis-Chicago bndry at 45°34′, 89°18′. Standard enroute radar separation as appropriate will be provided. Due to eqpmt characteristics weather advisory service cannot be provided.
ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1–19 clsd until aprxly May 1, 1965.
ST PAUL-DOWNTOWN (HOLMAN FLD): Efctv 0[illegible] to 2200 control zone is designated within a 3 mi radius centered at lat 44°56′10″, long 98°03′40″.
WALKER MUN ARPT: N/S rnwy plowed during winter months.
WORTHINGTON: Control zone efctv 0700 to 1830 local time.

MISSISSIPPI

BELZONI, HALBROOK FLD: Clsd to public.
BELZONI, TURNER ARPT: Clsd to the public.
McCOMB, PIKE COUNTY ARPT: Rnwy 7–25 clsd for unknown duration. Constr in progress on rnwy 34 txwy shoulders until aprxly April 1965. Do not taxi off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V-[illegible] vcnty Grandview, Richards-Gebaur Arpt., due concentration of tfc alts. Where possible, suggest all ops operate via V–13E btn Kansas City and Butler Arpt.
FT. LEONARD WOOD—FORNEY AAF: Radar Proc. No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C–dn minimums 500–1, 600–1¼. 6[illegible] 1½.

RT LEONARD WOOD, FORNEY AAF: Fld clsd to vil acft except on business and on flgt plan. Two-ay rdo and prior clearance from twr rgrd before try into R-4501. Enter R-4501 on SE heading of 0° from Waynesville, Mo.; SSW heading 210° from chy, Mo. (VOR); WNW heading of 290° from iples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2-20 sd. Txwy from S end of mil apron to rnwy (1500') able for takeoff and indg in emgcy or on req.

SAS CITY, MID CONTINENT ARPT: Control zone signation Control twr service and ADF Procedure . 1, ILS rnwy 18, ILS rnwy 36 with no restriction alternate minimums, is extended to include the riod 0500 Z to 1300 Z daily, beginning 0500 Z Dec , 1964 until 1300 Z Jan 10, 1965.

ON, FOWER ARPT: 171' (1026' MSL) lgtd water k being constrd 1 nmi N (007° T) at lat 39°44'50", g 92°27'45".

MONTANA

following is a list of fld clsd winter months: Condon SFS, Conner, Shook Mountain Arpt, Helmville, Wine ass Arpt, Libby Arpt, Meadow Creek USFS Arpt, ando, Clearwater Arpt, Ovando, Heart Bar Airstrip, ins Arpt, Pole bridge, Quarter Circle M.C. Arpt, man Arpt, Seeley Lake Arpt, St. Ignatius Arpt, Su-rior, Mineral Co Arpt, Thompson Falls Arpt, Troy SFS Arpt, Whitefish Arpt.

AT FALLS ARTCC (NOTIP). Efctv July 23, en ite radar service exep radar weather advisory service ll be available throughout the enlarged Great Falls RTCC/NOTIP area. Due to equipment characteristics dar weather advisory service cannot be provided in s area nor on J107 from the centers eastern bound-y to the Canadian border where civil turbojet radar visory service is being provided by Great Falls RTCC/NOTIP. VFR service in the Kalispell, Mont. a will continue to be available through use of the RTCC freq 120.4 mc. VFR flights in the Kalispell a call 'Great Falls Center—VFR Service'. Further ormation is contained in a letter to Airmen that has n distributed in the area.

ISPELL, FLATHEAD CO ARPT: Rnwy 11-29 and 5 clsd due snow UFN. Rnwy 1-19 remains open.

NEBRASKA

ND, LINOMA BEACH ARPT: 880' (2049' MSL) lgtd TV constrd 7.5 nmi WNW (030 deg T) at lat 41°08'33", 96°27'01".

CITY, BONGERS SKY RANCH ARPT: Open to public. Lctd mi S at lat 41°14' long 97°08'. Elev: 1620'. Two rnwys N/S 1900 x 185 and NW/SE 1900 x 60'. Minor A and pairs. 80 Fuel. 20' p-line end NW rnwy by railroad. Rgt ndg S and SE.

INGS MUN ARPT: Constrn in progress.

E MUN ARPT: Clsd due rnwy constrn.

NEY: Efctv Mar 4, 1965 Kearney, Nebr. control e will be efctv from 0700 to 2200 hrs local time y.

N, ELDEN SKY RANCH ARPT: Open to public. Lctd 1 mi E. at 40°50', long 96°34'. Elev: 1150'. One rnwy Turf NW/ 700 x 75'. 80/87 Fuel.

LN MUNICIPAL AIRPORT/AFB: Proc. No. ILS-Orig., is revised as follows, effec. immediately: ight-in minimums of 400-¾ required when glide e not utilized.

NEBRASKA CITY ROLL BROS ARPT: Open to public. Lctd 2.7 smi SE at lat 40°39', long 95°50'. Elev: 1040'. One rnwy NNW/SSE Turf 1700 x 100'. 80/87 Fuel only.

NORFOLK: Efctv Mar 4, 1965, control zone estab as follows: "Within a 5-mile radius of the Karl Stefan Arpt (Lat 41°59'10"N, long 97°26'00"W), within 2 mi each side of the Norfolk VOR 147°, 195°, 318° and 025° rads extending from the 5-mile radius zone to 8 miles SE, S, NW and NE of the VOR."

OMAHA RDO: Voice comms with Omaha, Nebr FSS unusable below 3600' on V-6-8S btn 36 and 55 nmi E of VORTAC exep tsmtg 116.3 mc.

SCRIBNER, SCRIBNER STATE ARPT: NE/SW rnwy tmprly clsd.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio for information concerning release time of Restricted Area R-4803. At other than release times flight is restricted at 8000' MSL and below along airways in N portion and at 18,000' MSL and below S of airways in R-4803. Geographical coordinates of R-4803 are from 3 nmi radius circle centered at lat 39°20', long 118°52' and within 3 nmi W and 2 nmi E of a line extending 349.5° T from the circles center 15 nmi NNW.

SPECIAL NOTICE: Demolition of ordnance being conducted daily UFN Mon-Fri 1000-1500 with danger to acft from surface to 10,000' MSL within a one and one half mi radius of coordinates 38°14'30", long 118 37'-45", aprxly 20 mi S of Naval Ammunition Depot at Hawthorne.

LAS VEGAS: Hi-density jet tfc: Pilots on other than IFR clearance should either avoid or use extreme caution when traversing the following areas within which Nellis AFB hi-density jet tfc is operg. Hours of Operation: 0800-1800 local time, Monday thru Saturday, continuous daily at 9000' MSL and below within a 5 mi radius of Nellis AFB. Surface to 23,000' MSL within flg boundaries: 36°42', 115°18'; 36°42', 114°32'; 36°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°-27'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°-15'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°-45'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°-42'; 36°35', 115°42'; 36° 35', 115°37'45"; 36°26', 115°23'25"; 36°23'-25", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; west to closest 5000' elev line at 36°13', 115°22'; SW along 5000' elevation line to 36°08'50", 115°30'; to point of beginning. Surface to 23,000' MSL within flg boundaries: 36°42', 115°18'; 36°26', 115°23'25"; 36°23'25", 115°23'25", SE along US 95 to 36°14'20", 115°14"; 36°13', 115°07'30"; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°34'30"; 114°41'-30"; 36°42', 114°32'; to point of beginning. Btn 8000' MSL and 9000' MSL within flg boundaries: 36°31', 114°56'40"; 36°42', 114°12'; 36°32', 114°12'; 36°23'-30", 114°48'20"; to point of beginning. Btn 10,000' MSL and 23,000' MSL within flg boundaries: 36°14'-20", 115°14'; west to closest 5000' elevation line at 36°13', 115°22', SW along the 5000' elevation line to 36°08'50", 115°30'; 36°10', 115°10'; to point of beginning. Surface to 9000' MSL within flg boundaries: 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30",

114°48′20″; 36°12′, 114°58′; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000′ MSL Frequent violations reported of Restricted Area R–4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000′.

MESQUITE ARPT: Reactivated. Open to public at pilots own risk. lctd 1 mi E at lat 36°48′15″, long 114°03′00″. Elev: 1770′. Two gravel and dirt rnwys 6–24 1800 x 165′ and 2–20 1650 x 160′. Rnwy 20 apch restricted by P-line. Unattended.

NEW HAMPSHIRE

GILMANTON IRON WORKS, BESSE FLD: Clsd during winter months.

KEENE, MARCY FLD: Clsd winters.

NORTH STRADFORD ARPT: Clsd winters.

NEW JERSEY

ATLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

DOVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000′ MSL. Prior entering area ctc Teterboro Rdo.

NEWARK AIRPORT: Proc. No. ILS–22, Amdt. 9, effec. 10 Oct 64 and ADF Proc. No. 2, Amdt. 4, effec. 10 Oct. 64. During the period of the Yardley, Pa. VORTAC shutdown, the missed approach procedures are revised as follows: ILS–22: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished, climb to *1500′ straight ahead on SW crs. of Newark ILS to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000′, hold NE Chatham RBn, one-minute right turns, inbound crs. 241°, *2000′ for jet aircraft. ADF No. 2: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished within 5.8 miles after passing LOM, climb to *1500′ straight ahead on crs. 217 degrees to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000′. Hold NE Chatham RBn, one-minute right turns, inbound crs. 241 degrees. *2000′ for jet aircraft.

OCEAN CITY ARPT: Clsd until Spring, 1965.

RED BANK ARPT: Tfc patn alt changed to 1000′ AGL.

TRENTON, MERCER COUNTY ARPT: Rnwy 6–24 clsd. May be used as txwy only.

WEST MILFORD, GREENWOOD LAKE ARPT: Arpt will be unattended Christmas Day, New Years Day, Easter Sunday and Thanksgiving Day.

NEW MEXICO

ALAMOGORDO MUN ARPT: Pole 1200′ from apch end rnwy 16.

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" test will be conducted 0700–1000M daily excp Sat and Sun These ctld firings are conducted only during VFR we conditions and lctd aprxly 8 mi SSE Kirtland AFB a lat 34°57′30″, long 106°33′45″. Soil clods may b thrown to a radius of 1000′.

CARLSBAD MUN ARPT: 300′ (3434′ MSL) lgtd rdo twr const 20 nmi E (090° T) at lat 32°19′32″, long 103°52′31″.

CONCHAS DAM, CONCHAS LAKE ARPT: 206′ (5503′ MSL) by microwave twr constrd 10 nmi S (173° T) at lat 35°12′29 long 104°09′32″.

LOS ALAMOS: Use of the airstrip at Los Alamos limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized u will be considered trespass. Any lndgs on the Los Al mos Arpt, or other use of its facilities, by a priva pilot who does not have written permission from th Atomic Energy Commission, shall be deemed for a purposes to be (1) an assumption of all risks and li bilities by such pilot in connection with his use of th Los Alamos Arpt, (2) a recognition and agreement th neither the United States of America, its cost-type co tractors, or their officers, agents or employees has an obligation to such pilot to operate and/or maintai the airport or its facilities in a safe manner or con tion, and (3) an agreement to sign a document reflec ing the foregoing.

NEW YORK

ANTHONYS NOSE: Awy bcn site #4 will be perm decmnsd on or about Feb 15, 1965.

DEPOSIT ARPT: Permly clsd.

DUNKIRK RDO: About Feb 24, MHW will be perm decmsnd.

KEESEVILLE ARPT: Clsd winters excp to ski acti

MORRISONVILLE, NORTHWAY ARPT: Rnwy plow during winter.

NEW YORK CITY: 1520′ rotating bcn atop Empi State Bldg lctd aprxly 11 mi NW JFK Arpts opers rotating basis dusk to midngt. From midngt to d break bcn in fixed position with light beamed dire S.

NEW YORK JOHN F. KENNEDY INTL TWR: Effe August 1, 1964, Kennedy Tower will begin an eva tion of a new "pre-taxi clearance" concept, which intended to provide departure aircraft with better se ice by permitting more expeditious handling redu frequency congestion and providing a better atmosph for receipt of the IFR clearance. Additionally, pa ticipating flights will normally remain on a sin control frequency from the time the aircraft commen taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clear Delivery, frequency, 121.65 mcs. This call shall made a maximum of ten (10) minutes prior to e mated taxi time. IFR clearance and departure rute currently in use shall be issued at this time. Time altimeter setting will be isued to all itinerant dep tures and to scheduled air carriers when requeste

2. Additional information shall also be issued a time of clearance delivery. This information shall sist of only that which will concern the departur craft. An example of this would be an advisory th departure delays are twenty (20) minutes and th turbojet aircraft should contact Ground Control pr to starting engines.

3. After clearance is received, aircraft shall return normal frequency use, i.e., contacting Ground Control 121.9 mcs, when ready to taxi. Pilots need not wait Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK, LA GUARDIA ARPT TWR: No control over vehicles operg on ramp areas. Runwy 4 ILS glide slope errs deviations may be encountered due to acft movements in close proximity to Glide Slope transmitter when wea conditions are 1000-3 or better.

NEW YORK, LA GUARDIA ARPT: FEE Clsd to jet propelled and motorless acft and acft over 105,000 lbs., unless prior permission of Arpt Mgr. ILS loclzr (runwys 4 and 22) inop until further notice.

NORTH TONAWANDA, COUNTY LINE ARPT Clsd to transient acft until May 15, 1965.

OLIVE PARK: Clsd during winter months.

ONEIDA, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350' radius centered at lat 42°46'59"N and long 76°53'06"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with E'mira FSS.

TICONDEROGA ARPT: Clsd for duration winter season.

WATERTOWN MUN ARPT: Rnwy 1-19 clsd to all operns WN. Will not be maintained during winter months.

NORTH CAROLINA

ELIZABETH CITY MUN ARPT: Due to heavy VFR GA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500' pattern from the west.

FAYETTEVILLE, GRANNIS ARPT: Loclzr usable area confined to front crs and 35° either side. All other areas unusable.

FAYETTEVILLE, POPE AFB: Extensive operns to 5000' MSL 1200-2200Z Mon thru Fri. Pilots of all acft are advised that in an area from Lillington, N.C., north along arwy V3E 6 NM to Chalybeate, N.C., interclockwise west 12 NM to Broadway, N.C., thence NW 38 NM to Marston, N.C., thence E 26 NM to Rockfish, N.C., thence NE 27 NM back to Lillington: intensive training will be conducted W of V3E using navy four engine transport and prop jet (C-124 and C-130) acft, consisting of single, formation, and multiple formation flights. These acft oper 2,000' and below under VFR conditions, conducting low level (300' AGL to 2,000' MSL) runs in the maneuvering area described above, for troop and cargo drops into R-5311. Similar operations are conducted in the vicinity of Mackall AAF with drops at Mackall AAF.

HICKORY MUN ARPT: Rnwys 1-19 and 11-29 clsd due constrn.

NORTH DAKOTA

KEENE, NELSON ARPT: New. Lctd 5 mi NNE at lat 47°56'45", long 102 48'45". Elev: 2450'. One rnwy N/S 1400 x 200 Turf. N apch restricted by P-line. Glide angle 1 to 1.

LANGDON MUN ARPT: Rnwy lgts inop UFN. Open for ski acft only.

PEMBINA MUN ARPT: E/W rnwy clsd and constrn on rnwy 14-32 until aprxly Jul 15, 1965.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500' MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area: bounded on S by lat 41°11'30", on N by lat 41°12'20"; E long 81°04'22"; W long 81°06'14". Demolition activities in this area will go no higher than 5000' MSL and only when ceiling of 10,000' or better and vsby 10 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4-1246).

TOLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400-2300 due to drag races all rnwys UFN.

OKLAHOMA

ANADARKO MUN ARPT: 260' (1620' MSL) lgtd rdo twr constrd 5 nmi N (360° T) at lat 35°07'55", long 98°15'45".

CLINTON MUN ARPT: 280' (2054' MSL) lgtd rdo twr constrd 9 nmi NNE (021° T) at lat 35°41'07", long 98°52'43".

CORDELL MUN ARPT: 262' (1877' MSL) lgtd rdo twr constrd 12 nmi E (095° T) at lat 35°17'00", long 98°42'40".

DUNCAN, HALLIBURTON FLD: 390' (1380' MSL) lgtd rdo twr constrd 8 nmi SSE (168°T) at lat 34°20'57" long 97°55'37".

ENID: Efctv Nov 15, 1964 ctl zone times will be 0700-1800 local time Mon thru Thurs 0700-2200 local time Fri, from 0800-1600 local time Sat, and 1200-1800 local time Suns. Control zone not designated on holidays.

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet tfc is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500' MSL and maintain 3500' MSL via

hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500′ MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500′ MSL. To and from the S maintain 2300′ MSL E of an extended N/S line to a point abeam the town of Bison. To and from the N and E maintain 4000′ MSL or below within 20 mi of Woodring Arpt. Low level jet navigation missions now being performed at 1000′ to 1500′ AGL at 300 knots along the following routes: Vance AFB: 8 nmi N of Fairview: Ft Supply; Darrouzett; Briscoe: Strong City; Bridgeport; Enid. Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid. Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200–2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

LAWTON MUN ARPT: 242′ (1312′ MSL) lgtd rdo twr constrd 10 nmi S (172° T) at lat 34°24′30″, long 98°23′12″.

PURCELL, CHANDLER FLD: 310′ (1290′ MSL) lgtd rdo twr constrd 7.5 nmi S (171° T) at lat 34°50′49″, long 97°21′30″.

SEMINOLE MUN ARPT: 300′ (1147′ MSL) lgtd rdo twr constrd 2 nmi S (173° T) at lat 35°13′51″, long 96°40′26″.

STILLWATER, SEARCY FLD: Intermittent constrn in progress all rnwys Jan 10 until aprxly Aug 31, 1965.

TIPTON MUN ARPT: N/S rnwy clsd Jan 25 until July 1, 1965 reconstrn turf rnwy.

WOODWARD, WEST WOODWARD ARPT: 305′ (2460′ MSL) lgtd rdo twr constrd 2 nmi SW (234° T) at lat 36°24′55″, long 99°33′00″.

WOODWARD, WEST WOODWARD ARPT: 410′ (2446′ MSL) lgtd rdo twr constrd 9 nmi NNW (335°T) at lat 36°34′39″, long 99°35′40″.

YUKON, CIMARRON FLD: Use turf rnwy 17–35 only.

OREGON

The following arpts are clsd for an unknown duration, due to winter: Beaver Marsh; Stearns; Crescent Lake Flight Strip; Idanaha, Strantiam; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000′ in area bounded by 46°12′N, 124°10′ W thence 46°12′N, 123°59′20″W thence along a line one half mi E of shoreline to 46°02′N, 123°55′30″W thence 46°02′N, 124°10′W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.

BORING ARPT: New. Lctd 2 smi E at lat 45°26′, long 122°20′. Elev: 585′. One rnwy NE/SW 1400 x 50 Turf. Unattended.

CAVE JUNCTION, SPORTSMENS RANCH ARPT: Clsd until aprxly Mar 1, 1965.

ECHO, COOMS BUTTERCREEK ARPT: New. Lctd 9 smi W at lat 45°43′, long 119°22′. Elev: 990′ One rnwy N/S 1450 x 50 Turf. Minor A and P repairs. 80/87 Fuel only.

HEPPNER, KINZUA CORPORATION ARPT: New. Lctd 1.5 smi NNW at lat 45°23′, long 119°34′. Elev: 1750′. One rnwy N/S 2000 x 100 Dirt. Unattended.

LONG CREEK ARPT: New. Lctd 4 smi N at lat 44°46′, long 119°06′. Elev: 3800′. One rnwy N/S 3500 x 100 Dirt. Unattended.

PAISLEY, ZX RANCH ARPT: New. Lctd 2 smi at lat 42°43′, long 120°33′. Elev: 4250′. Two dirt rnwys 16–35 4700 x 200′ and 7–25 2200 x 200′. Unattended.

NORTH BEND ARPT: About 17 nmi N a [illegible] aluminum colored Vee shaped balloon 75,000 cubic capacity being used in logging operns during dlt hrs, maximum alt 1000′ MSL. During hrs darkness will be lowered to 100′ AGL.

PORTLAND, TROHS NEST ARPT: New. Lctd 8 mi SE at lat 45°25 long 122°26′. Elev: 780′. Two gravel rnwys 11–29 180 and 18–36 1200′. 100/130 fuel only. Minor A and P repairs. Caution—arpt soft when wet. Stay on gravel.

UMPQUA RIVER, SCOTTSBURG TO REEDSPORT: River canyon crossed by 4 electric power lines. Two on both banks mrkd by red lgts. Easternmost crossing also mrkd with 20″ orange aluminum balls spaced lgtd from both sides of the river.

UNITY, ELLINGSON LUMBER COMPANY ARPT: New. Lctd 0.5 nmi N at lat 44°27′, long 118°11′. Elev: 4800′. One rnwy E/W 2400 x 60 Dirt. Unattended.

PENNSYLVANIA

BRISTOL, 3–M AIRPORT: VOR Proc. No. 1, Orig., efctv 5 Sept 1964. During the period of the West Chester VORTAC shutdown, change transition from Ardmore VHF Int to read from "Temporary Ardmore VHF Int to PNE VOR".

COUDERSPORT, POTATO CITY ARPT: Clsd winter months.

HANOVER, DEVENER ARPT: Arpt will be clsd from Jan 1 to April 1, 1965 due to soft conditions and snow.

PHILADELPHIA INTL ARPT: Excavation 1 to 3′ deep, 100′ long and 150′ wide aprxly 30′ from apch end rnwy 27. Ant structure aprxly 5′ hi, 45′ long 217′ from apch end rnwy 27 UFN.

PHILADELPHIA, NORTH PHILADELPHIA ARPT: Rnwy 6–24 clsd until aprxly Feb 14, 1965.

PITTSBURGH, GREATER PITTSBURGH ARPT: Creek H facil comm Lctd on rnwy 10L extended cntrline 69 nmi from apch end rnwy. Lat 40°30′21″, long 80°25′17″. Elev: 1116′ MSL Mag variation 4°W. Freq: 219 kc. Ident: CRK. Class: MH

READING, GEN. SPAATZ AIRPORT: Proc. No. ILS 36, Amdt. 8, efctv 13 Oct 62. During the period of the West Chester VORTAC shutdown, change transition from Honeybrook Int to LOM (Final) to read from "Int. RDG Localizer Front course and the LRP inbound radial to LOM (Final)". ADF Proc. No. 1, Amdt. 1, efctv 22 Sept 62. During the period of the West Chester VORTAC shutdown, delete transition from "Honeybrook Int. to LOM (Final)."

SAYRE, CHEMUNG VALLEY ARPT: Clsd winter months due snow conditions.

TIONESTA, BENNINGER ARPT: Clsd due to snow [illegible]

SOUTH CAROLINA

CHARLESTON AFB/MUN ARPT: Rnwy 3–21 clsd from Jan 7 until aprxly Feb 15, 1965.

CHERAW MUN ARPT: Closed until aprxly March 1.

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

SOUTH DAKOTA

ESTELLINE ARPT: Clsd during winter months.

MOBRIDGE RDO: State owned and operd VOR open 0700–1900, VFR use only. Class: L–VOR. Freq: [illegible] receivers 122.1. Ident: MBG. Lctd lat 45°38′57″ long 100°21′56″.

TENNESSEE

CAMDEN, BENTON COUNTY ARPT: New. Lctd 2 mi S of [illegible] 36°00′40″, long 88°07′56″. Elev: 468′. One rnwy 3–21

Asphalt 3500 x 75'. Gross acft weight brg capacity 30,000 lbs single gear.

GRFREESBORO MUN ARPT: Glider towing and soaring activity conducted dalgt hrs at and in vcnity arpt.

ASHVILLE, CUMBERLAND FLD: Hvy equipment crossing S end rnwy dalgt hrs Mon-Sat noon.

ION CITY, EVERETT-STEWART ARPT: 403' (744' MSL) lgtd TV twr being constrd 5 nmi NW (309°T) at lat 36°26'13" long 89°04'09".

TEXAS

ARILLO: Controlled Firing Area lctd 10 mi NE of nd of NE/SW rnwy of Amarillo AFB/Mun: Lat 35° 2'09", long 101°37'04" E to 35°21'12", 101°32'26", S to 35°17'56", 101°32'26" W to 35°17'56", 101°37'04", N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552'.

STIN, MUELLER MUN ARPT: 1199' (2049') lgtd TV twr constrd 5.5 nmi WNW (287° T) at lat 30°19'33", long 97°47'58".

G SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V-66, including area W along V-165 to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V-66 to N-S line drawn through town of Loraine, Tex. Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 60 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

G SPRING HAMILTON FLD: Caution, all alt 3,600' MSL and above intensive jet tfc. T-37 tfc pattern alt t Webb AFB 3,600' MSL.

G SPRING HOWARD COUNTY ARPT. Caution, all lt 4,100' MSL and above, intensive jet tfc. T-37 tfc attern alt at Webb AFB 3,600' MSL.

OWNSVILLE, RIO GRANDE VALLEY INTL ARPT: nwy 13R-31L clsd except that lgt acft may be leared to land on rnwy 13R.

EAR SPRING ARPT: Civil acft requiring use of this d when military acft are in the tfc patn, should fly a ectangular patn with turns in the opposite direction rom the military patn and rock wings on downwind. 'atn should be flown at 1200' MSL until military tfc clear. Use rnwys only for lndgs. Rnwy 13-31 clsd fn.

ROE, MONTGOMERY CO ARPT: 304' (492' MSL) lgtd FM tr constrd 5 nmi E (098° T at) lat 30°20'07", long 95°19'31".

LLAS, LOVE FLD: Two bldgs being erected 5 nmi SE (144°T) at lat 32°47'00", long 96°47'50". Bldg A ax tmpry hgt 661' (1115' MSL). Completed bldg will e 595.5'. (1039' MSL). Bldg B will reach max tmpry gt 710' (1149' MSL) in Jan 1965. Completed bldg ill be 609.5' (1049' MSL).

IVER CITY ARPT: 350' (3830' MSL) lgtd rdo twr constrd 14 mi S (175°T) at lat 32°43'50", long 102°47'42".

INBURGH MUN ARPT: Rnwys rough. Use Caution.

WORTH, SAGINAW ARPT: 208' (1008' MSL) lgtd rdo twr constrd 11 nmi W (272° T) at lat 32°52'48", long 97°36'06".

MILTON MUN ARPT: 400' (1605' MSL) lgtd rdo twr constrd 1 nmi NNE (020° T) at lat 31°42'59", long 98°07'54".

NDO: Randolph AFB jet T-38 and T-33 acft will onduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs c.t.d by RSU freq 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 600' above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 300' MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress.

HOUSTON, COLLIER ARPT: 379' (437' MSL) lgtd rdo twr constrd 3 nmi WSW (253° T) at lat 29°52'10", long 95°30'57".

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns for unknown duration.

HOUSTON INTL ARPT: Inbnd flts etc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° etc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038 18[illegible] etc HOU apch ctl on 118.1 or 307.1.

JOHNSON CITY ARPT: Microwave twr under constr 1400' WSW 105' AGL will be obstn lgtd and painted.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1, Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controller airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

KINGSVILLE, KLEBERG CO ARPT: 400' (474' MSL) lgtd TV twr constrd 7.5 nmi E (090° T) at lat 27°33'02", long 97°52'35".

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000' MSL in this area. It this is not feasible, etc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; rcv on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

LIBERTY, HOUSE ARPK: 204' 237' MSL) lgtd rdo twr constrd 3.5 nmi W (277° T) at lat 30°03'32", long 94°47'05".

MIDLAND AIR TRML: Webb AFB T-38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS, acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000' MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

OZONE MUN ARPT: 200' (2626' MSL) lgtd rdo twr constrd 2 nmi S (172° T) at lat 30°41'54", long 101°11'42".

PERRYTON MUN ARPT: 300' (3168' MSL) lgtd rdo twr constrd 2 nmi WNW (284° T) at lat 36°24'34", long 100°47'39".

ROBSTOWN, NUECES CO. ARPT: 982.4' (1049' MSL) lgtd TV twr constrd 3 nmi E (090° T) at lat 27°46'50", long 97°38'03".

SAN ANGELO, MATHIS FLD: 260' (2170' MSL) lgtd rdo twr constrd 3.5 nmi N (5° T) at lat 31°24'41", long 100°28'29".

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42'00", long 98°33'50". Altitude: surface to 3000' MSL (1500' AGL). Time and use: 0830 to 1200 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000' MSL. Hvy conventional and jet instrument acrobatic and transition trng in SE quadrant btn V198 and V163 and V163W 60 nmi radius of Randolph Mon-Fri. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Aux Arpt. Hvy IFR/VFR penetrations and apcrs will be made from the La Vernia VOR to Randolph AFB. Should necessity dicate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

TEMPLE, DRAUGHON-MILLER ARPT: Runway 11–29 clsd until aprxly Mar 1, 1965.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

VICTORIA CO-FOSTER ARPT: 420' (540 MSL) lgtd rdo twr constrd 5 nmi SSW (204°T) at lat 28°46'32", long 96°57'12".

WICHITA FALLS AIR TRML: 203' (1212' MSL) lgtd rdo twrs/4/ constrd 3 nmi WSW (237° T) at lat 33°57'38", long 98°33'42".

UTAH

BRYCE CANYON ARPT: Rnwy 12–30 clsd UFN acct snow.

BRYCE CANYON, KANAB MUN ARPT: Rnwy lgts inoperative. Rotating beacon changed to white.

DELTA MUN ARPT: Clsd to all ngt operns 1800–0600 MST efctv Jan 1, 1965 UFN.

DUCHESNE MUN ARPT: Lndg may be unsafe when snow covered. No snow removal eqpmt or svc. during winter months.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N, 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

BARRE-MONTPELIER ARPT: Rnwy 5–23 clsd until aprxly Apr 15, 1965.

BRISTOL, MUN ARPT: Open winters. N/S rnwy will be plowed.

FAIR HAVEN MUN ARPT: Clsd for duration winter season.

MANCHESTER, EQUINOX ARPT: Clsd for duration winter season.

NEWPORT MUN ARPT: Rnwy 5–23 clsd until about May 1, 1965 due snow.

RUTLAND MUN ARPT: Rnwy 13–31 clsd winters.

VIRGINIA

DAHLGREN: Restricted Area R–6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR–SS, Mon-Fri.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.

FRONT ROYAL, STOKES FLD: Unattended until aprxly Mar 1, 1965.

MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.

ONANCOCK, JOHNSON FLD: 285' (317' MSL) lgtd rdo twr constrd 3 nmi ENE (068° T) at lat 37°43'02", long 75°41'01".

RICHMOND, RICHARD E. BYRD FLYING FLD: Rnwy 15–33 avbl only to scheduled DC–7, DC–6, turbo jet and local based military jet acft with prior arrangement with twr.

WASHINGTON

The following is a list of flds that are clsd November–May due to winter elements: Bandera Arpt; Easton Arpt; Enumclaw, Ranger Creek Arpt; Laurier, Arden Arpt; Leavenworth, Lake Wenatchee Arpt; Lester Arpt; Oroville, Nighthawk Arpt; Packwood Arpt; Skykomish Arpt; Stehekin Airfld.

The following is a list of airports that are clsd until further notice (aprxly April or May): Davenport, La Crosse Mun, Lind, Northport-Lowry Mun and Metaline Falls-Sullivan Lake USFS.

BENGE, HARDER RANCH ARPT: New. Lctd 4.5 smi NW at lat 46°57', long 118° 11'. Elev: 1600'. One rnwy 15–33 Gravel and turf 4000 x 100'. North apch restricted by P-line Unattended.

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extendin gfor aprxly 2000' due to construction on it UFN.

KELLER, POOLER ARPT: New. Lctd 4 smi N at lat 48°05', long 118°41'. Elev: 1550'. One rnwy N/S 2500 x 30 Gravel Mountains E and W of rnwy. Unattended.

OAK HARBOR AIRPARK: New. Lctd 4 smi SSW at lat 48°16' long 122°35'. Elev: 140'. One rnwy 6–24 Turf 2600 x 100 80/87 and 100/130 fuel. Rnwy 24 apch restricted by P-line

OAKESDALE, BLACKS RANCH ARPT: New. Lctd 4.5 smi SE at lat 47°06', long 117°11'. Elev: 2550'. One rnwy N&S 2300 x 200' Turf. N apch restricted by p-line. Minor P repairs. 80/87 fuel. Unattended.

OTHELLO, TANGO AIRFLD: New. Lctd 2 smi SW at lat 46°47' long 119°13'. Elev: 965'. Two turf rnwys 3–21 1900 x 75' and 8–26 1900 x 75'. Rnwy 3 apch restricted by p-line Both apchs rnwy 8–26 restricted by p-lines. 80/87 fuel. Rnwy lgts avbl on req.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195–300° at 1000' MSL beyond 2 mi.

ROCKY POINT: Awy Bcn site 618 (near Kelso) permly decmsd.

SEATTLE: Hi alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

COMA ARPT: Caution advised due to thawing and freezing all areas off blacktop soft. Do not land or taxi on soft areas. Constrn 700' NE rnwy 1. Watch for unlgtd poles 22' ht and constrn equipment.

WEST VIRGINIA

ARLESTON, KANAWHA ARPT: 349' (1449' MSL) lgtd bcst twr located 3 nmi SSW (211° T) at lo 38°19'15", long 81°36'31".

ARKSBURG, BENEDUM ARPT: Constr in progress rnwy 13-31, unlgtd.

NTINGTON, TRI-STATE ARPT: About Feb 8, ILS clsr will be shut down until aprxly Feb 14, 1965 for elctn.

WISCONSIN

MP DOUGLAS: Control area extension effective Feb 18, 1965 from 0745–1630 lcl time daily until further notice.

EN BAY, AUSTIN-STRAUBEL ARPT: 247.5' (837.5' MSL) lgtd tetrahedron constrd 4.5 nmi E (090° T) at lat 44°29'36", long 88°01'57".

NESVILLE: Efctv Jan. 1, 1965, control zone Sun thru Fri 0700 to 2330 and Sat from 0700 to 2000 local time.

E GENEVA ARPT: Two 176' AGL/1020' MSL/lgtd rdo twrs constrd 1 nmi NE (044° T) at lat 42°35'40", long 88°23'19".

LAND O LAKES, KINGS LAND O LAKES MUN ARPT: Clsd winter months. Rnwy lgts on req (Phone 547-3777.)

MANITOWISH WATERS ARPT: Clsd winters. No fuel until spring.

WEST SALEM, MAPLE GROVE ARPT: Clsd until April 15, 1965.

WYOMING

BILL, KETELSEN RANCH ARPT: New. Lctd 16 mi E at lat 43°-11'30", long 104°56'15". Elev: 4400'. One rnwy 12–31 Turf 2000 x 75'. Dogleg in rnwy NW/SE. Unattended.

KREMMERER MUN ARPT: Clsd UFN due winter fld conditions.

LA BARGE ARPT: New. Lctd 1 smi NW at lat 42°17'15", long 110°11'45". Elev: 6640'. One rnwy 18–36 Gravel and dirt 2400 x 75'.

PINE BLUFFS MUN ARPT: New. Lctd 4 smi SW at lat 41°09'12", long 104°07'41". Elev: 5138'. One rnwy 8–26 Gravel and Dirt 4800 x 50'.

VERSE, DILTS RANCH ARPT: Associated city name changed to BILL. Lctd 18 mi NW at lat 43°23'45", long 105°33'15". Elev: 4800'. One rnwy 10–28 Turf and dirt 2600 x 50'. Rnwy 10 apch restricted by TV ant. 100/130 fuel only. Unattended.

CHANGES/ADDITIONS TO AIM

¶ 1-4

The list of airborne check points and ground check points is published in Section III. VOT's are included with the airport information in Section IV A.

December 1964

¶ 1-5:

/OR Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

The terms VOR, VORTAC, and TACAN are, operationally, general terms covering the VHF and UHF omnidirectional bearing type of facilities without regard to the fact that the power, the frequency protected area, the equipment configuration, and operational requirements may vary between the facilities at different locations.

The table below lists the intended operational service volume or volumes of the various categories of VOR's, VORTAC'S, and TACAN's. Below 18,000 feet msl, the operational service volume of the H class facility has been limited to the L class service volume due to signal coverage characteristics of VHF and UHF facilities at the lower altitudes. T class facilities provide terminal service at locations where it is not practicable to provide L class frequency protection. Normal signal coverage and interference free service may be expected within the operational service volume unless specific facility restrictions have been imposed. Use of these facilities for IFR operations outside of the operational service volume without additional flight inspection is not intended and may result in undependable or inadequate indications in the cockpit.

lass of VOR, TAC, or TACAN	Operational Service Volume
Terminal)	25 nmi up to 12,000′ msl
Low altitude)	40 nmi up to 18,000′ msl
(High altitude)	40 nmi up to 18,000′ msl 130 nmi from 18,000′ msl 45,000′ msl 100 nmi above 45,000′ msl

December 1964

GE 1-24:

'nder TRANSCRIBED WEATHER BROADCASTS

.:

. Automatic transcribed broadcasts service is avail- e on class H facilities designated as:

a. **HSAB**—A class H radio beacon required for IFR radio navigation and/or airtraffic control and for automatic transcribed weather broadcast service. This class facility will be depicted on radio facility, Sectional and WAC' type charts.

b. **SABH**—A class H radio beacon having limited navigational use in that it is not flight inspected for IFR certification or primarily used for air traffic control. This aid will provide the automatic transcribed weather broadcast service and will be depicted on Sectional and WAC type charts, only.

4. Operation of either type facility will be essentially the same. Both will have a code identification sent at frequency intervals keyed simultaneously with the voice signals. Although, not essential, it may be advantageous to listeners to equip their receivers with a 1020 cycle code rejection filter which, when switched to the "voice" position, will silence the keyed code identification signal.

5. The AB (automatic transcribed service) component of HSAB's and SABH's will operate continuously except during those periods when the transcription equipment is inoperative. During these periods manual broadcasts, scheduled (H+45 hourly) and non-scheduled will be made.

February 1965

PAGE I-36:

Under Vertigo, delete last sentence, "If the beacon ------ etc".

December 1964

PAGE II-3—PARAGRAPH 3. DIRECT FLIGHTS.

b. The azimuth feature of VOR aids and the azimuth and distance (DME) features of VORTAC/TACAN aids are assigned certain frequency protected areas of airspace which are intended for application to established airway and route use, and to provide guidance for planning flights outside of established airways or routes. These areas of airspace are expressed in terms of cylindrical service volumes of specified dimensions called "class limits" or "categories." An operational service volume has been established for each class in which adequate signal coverage and frequency protection can be assured. To facilitate use of VOR, VORTAC or TACAN aids, consistent with their operational service volume limits, pilot use of such aids for defining a direct route of flight in controlled airspace should not exceed the following:

December 1964

¶ II-8:

Under 3. STANDARD INSTRUMENT DEPARRES (SIDs) add: paragraph d. "It will be the ponsibility of each pilot to accept or refuse the arance issued." Change present d. to e.

December 1964

¶ II-16:

IOLDING—Revise paragraph 6, last sentence to d: "Where the fix is associated with an instrument roach, and timed approaches are in effect, a procedure n shall not be executed unless the pilot advises ATC, e aircraft holding are expected to proceed inbound final approach directly from the holding pattern when roach clearance is received."

December 1964

¶ II-18:

IRCRAFT CLIMBING/DESCENDING Add new agraph:

d. If it is necessary during a climb or descent to level off at an intermediary altitude, advise ATC.

December 1964

¶ II-19—MILITARY CLIMB CORRIDOR RESTRICTED AIRSPACE.

he procedures in this paragraph become effective on uary 7, 1965.

hange title to read: "RESTRICTED AIRSPACE".

December 1964

¶ II-20:

OMMUNICATIONS, 1. g., after the example add following:

NOTE—Pilots in Alaska, Hawaii, U.S. Territories and possessions, operating at or above flight level 240 and who have requested and received a clearance specifying "VFR Conditions On Top" are requested to report their "actual" altitude as part of their IFR position reporting procedure and advise ATC prior to making an altitude change.

December 1964

¶ II-22:

dd the following:

SPECIAL USE AIRSPACE

t is mandatory that pilots avoid unauthorized operaion in prohibited areas and restricted areas and exremely important that warning areas not be penerated unless prior approval has been obtained. The ollowing explanation is to impress on all concerned he purpose of such areas and indicate that hazards re presented by activities within restricted and arning areas. Caution and intensive student jet raining areas contain activity of interest to the onparticipating pilot. The operations conducted vithin these areas are not considered hazardous and onsist primarily of high volume military training. hese five types of airspace are depicted on aeronauical charts published by the Coast and Geodetic urvey.

a. **Prohibited Area.** Airspace identified by an area on the surface of the earth within which the flight of aircraft is prohibited. Such areas are established for security or other reasons associated with the national welfare. These areas are published in the Federal Register.

b. **Restricted Area.** Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Activities within these areas must be confined because of their nature or limitations imposed upon aircraft operations that are not a part of those activities or both. Restricted areas denote the existence of unusual, often invisible, hazards to aircraft. Penetration of restricted areas during periods of activity may be extremely hazardous to the aircraft and its occupants. Restricted areas are published in the Federal Register and constitute Part 73 of the Federal Aviation Regulations.

c. **Warning Area.** Warning areas are established beyond the three-mile limit. They are areas of defined dimensions established to contain both visible and invisible hazards to nonparticipating aircraft. Though the activities within the warning areas are as hazardous as those contained within restricted areas, warning areas cannot be legally designated because they are over international waters. Penetration of warning areas during periods of activity may be hazardous to the aircraft and its occupants. Official descriptions of warning areas may be obtained upon request to the FAA, Washington, D.C.

d. **Caution Area.** Areas of defined dimensions within which the military training activities conducted, though not hazardous, are of interest to nonparticipating pilots. There are no restrictions applicable to flight within these areas. Information concerning these areas may be obtained upon request to the FAA, Washington, D.C.

e. **Intensive Student Jet Training Area (ISJTA).** These areas are depicted on aeronautical charts to identify airspace utilized by the military for the intensive training of student jet pilots. There is no restriction to VFR flight in these areas. Information on these training areas may be obtained from any FSS within 100 miles of the area.

December 1964

PAGE II-25:

Change the material under RADAR TRAFFIC INFORMATION SERVICE, subparagraph c. "Issuance of Traffic Information" as follows:

c. **Issuance of Traffic Information**—Traffic information will include the following concerning a target which may constitute traffic for an aircraft that is:

(1) Radar identified:

(a) Azimuth from the aircraft in terms of the twelve hour clock;

(b) Distance from the aircraft in nautical miles;
(c) Direction in which the target is proceeding; and
(d) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffic; i.e., slow or fast moving.

Example:

Traffic 10 o'clock, 3 miles, west-bound (type aircraft and altitude, if known or relative speed of the observed traffic). The pilot may, upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller.

(2) Not radar identified:
(a) Distance and direction with respect to a fix;
(b) Direction in which the target is proceeding; and
(c) Type of aircraft and altitude or, if unknown, the relative speed of the observed traffi, i.e., slow or fast moving.

Example:

Traffic 8 miles out of the airport northeast-bound, (type aircraft and altitude or relative speed of the observed traffic).

December 1964

E II-25:

hange the material under TERMINAL RADAR RVICE as follows:

TERMINAL RADAR SERVICE

vided in designated Terminal Radar Service as, TRSA).

his service has been implemented at certain terminal ocations and is provided on a voluntary pilot particiating basis.

The purpose of this service is to provide, to the xtent possible separation between all participating FR aircraft and all IFR aircraft operating within he airspace defined as the TRSA.

The TRSA is primarily a radar environment and ontrol is predicated thereon, however, this does ot preclude application of nonradar separation when equired or deemed appropriate. During weather onditions equal to or better than basic VFR:

(a) 500 feet vertical separation may be used between VFR aircraft and/or between VFR and IFR aircraft.
(b) Visual separation may be used between VFR aircraft and/or between VFR and IFR aircraft when the pilot sees the other aircraft and reports he will maintain visual separation from it.

Within the TRSA traffic information on observed nt unidentified targets will, to the extent possible, e provided all IFR and participating VFR aircraft nd such aircraft, at the request of the pilot, will be vectored to provide standard radar separation from the observed traffic, insofar as possible.

December 1964

PAGE II-26.

Effective Jan 7, 1965 revise the material under APPROACH CONTROL a. Radar Approach Control, subparagraphs (2) and (3) and add new (4) as follows:

(2) IFR aircraft may be descended to the minimum vectoring altitude, vectored to a position in the airport traffic pattern and cleared for a "visual approach" whenever the reported ceiling is at least 500 feet above the minimum vectoring altitude and the visibility is three miles or more. With a "visual approach" clearance, the pilot operating on an IFR flight plan may deviate from the prescribed instrument aproach procedure and proceed to the airport with visual reference to the surface, maintaining VFR conditions at all times. This procedure will afford a more expeditious service to arriving aircraft and preclude unnecessary vectoring in the final approach course of a published instrument approach procedure.
(3) Clearance for a visual approach is issued when:
preceding aircraft reports sighting the airport and the tower controller has the aircraft in sight, or
(b) An aircraft is positioned behind a preceding aircraft and the pilot of the succeeding aircraft reports sighting that aircraft.
(4) Radar separation is provided from any preceding IFR aircraft until the clearance for a visual approach is issued. Pilots cleared for a visual approach are reminded to advise ATC whenever they are unable to continue following the preceding aircraft and/or they encounter less than basic VFR weather conditions. Radar service will be terminated when the pilot is told to contact the tower. The tower will assign a landing sequence number.

December 1964

PAGE II-30.

Paragraph 4. Change the last line to read "above the airport traffic area."

December 1964

PAGE II-51

Add the following:

REPORTING AIRCRAFT ACC'DENTS, INFLIGHT HAZARDS AND OVERDUE AIRCRAFT

(Civil Aeronautics Board, Safety Investigation Regulations, Part 320 (in part)).

1. NOTIFICATION

a. The operator of an aircraft shall immediately, and by the most expeditious means available, notify the Civil

nautics Board, Bureau of Safety Field Office near- the accident or occurrence when:

(1) As a result of the operation of an aircraft, any on (occupant or nonoccupant) receives fatal or seri- injury or any aircraft receives substantial damage;

(2) Aircraft collide in flight;

(3) The following inflight hazards are experienced:

(a) Fire;

(b) Rapid decompression requiring emergency ac- ;

(c) Unwanted or asymmetrical thrust reversal;

(d) Flight control system malfunction or failure;

(e) Inability of any required flight crew member erform his normal flight duties as a result of injury lness.

(f) An aircraft is overdue and is believed to have involved in an accident.

The following information is required if available:

(1) Location;

(2) Date;

(3) Time;

(4) Aircraft make, model, and registration number nationality;

(5) Names of operator and crew;

(6) Number of persons involved;

(7) Injuries of each person;

(8) Weather conditions;

PORTS

The operator shall file a report on CAB Form 453 4, available from the Civil Aeronautics Board Field s, the Civil Aeronautics Board, Washington, D.C., the Federal Aviation Agency Flight Standards Dis- Office:

(1) Within ten (10) days after an occurrence for h notification is required in 1 (a) and (b) above:

(2) When, after seven (7) days, an overdue aircraft ill missing;

(3) Upon request of an authorized representative of ivil Aeronautics Board;

Each crew member, if physically able at the time eport is submitted, shall attach thereto a statement ng forth the facts, conditions and circumstances re- g to the accident or occurrence as they appear to to the best of his knowledge and belief. If the member is incapacitated, he shall submit the state- : as soon as he is physically able.

HERE TO FILE REPORTS

The operator of an aircraft shall file with the Field e of the Civil Aeronautics Board nearest the acci- or occurrence any report required by this section ving:

(1) Aircraft having a maximum take-off weight of more than 12,500 pounds or rotorcraft regardless of weight.

(2) Aircraft having a maximum take-off weight of 12,500 pounds or less operated by an air carrier certificated to engage in air transportation in the State of Alaska; and

(3) Aircraft, regardless of maximum take-off weight, where fatal injuries have occurred to any occupant of such aircraft.

b. The operator of an aircraft shall file with the FAA Flight Standards District Office nearest the accident or occurrence any report required by this section involving fixed-wing aircraft with a maximum take-off weight of 12,500 pounds or less except reports which are required to be filed with the Board pursuant to paragraph A above. FAA Flight Standards District Offices are listed on last page of Section II in Airman's Information Manual.

c. Civil Aeronautics Board field Safety Office addresses and telephone numbers are **Anchorage:** P.O. Box 2219, Anchorage, Alaska; BRoadway 2-7001. **Chicago:** Suite 206, 6525 North Avenue, Oak Park, Ill.; VIllage 8 9565. **Denver:** 1549 Emporia Street, Auroa, Colo.; EMpire 6-8249. **Fort Worth:** 100 North University Drive, University Plaza Building, Fort Worth 7, Tex.; EDison 6-2463. **Kansas City:** 912 East 63d Street, Kansas City, Mo. 64110; EMerson 3-2220 and 3-2221. **Los Angeles:** Los Angeles International Airport, 5820 Avion Drive, Room 228, Los Angeles 45, Calif.; SPring 6-0117. **Miami:** P.O. Box 48-4631, Miami International Airport, Miami 48, Fla.; TUxedo 5-2445. **New York:** Federal Building, Room 101, New York International Airport, Jamaica, Long Island, New York; 995-3333. **Oakland:** P.O. Box 2386, Oakland Airport Station, Oakland 14, Calif.; LOckhaven 8-1280. **Seattle:** Room 202, Administration Building, King County Airport, Seattle 8, Wash.; PArkway 3-9474.

January 1965

PAGE II-51:

COAST GUARD RESCUE COORDINATION CENTERS New Orleans, La. change telephone number from JA 2-9103 to: 527-6225.

December 1964

PAGE IV-42—Change as follows:

Second column, second entry under state of Idaho—move MACKAY 1 SE to page IV-45 second column 8th entry from bottom and substitute MACKAY 1 SE for AMERICAN FALLS, AMERICAN FALLS 2 NE. The latter moves to page IV-42 second column, second item under state of IDAHO.

January 1965

AIRMAN'S INFORMATION MANUAL

NOTICES TO AIRMEN

SECTION III A

4 MARCH 1965

FEDERAL AVIATION AGENCY

SPECIAL NOTICE

Because of many requests, VOR, LF radio beacons and ranges, and ILS compass locators (LOM) data will be added to Section IVA of the AIM in a subsequent issue.

Section III–A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the AIM. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or revised Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

NOTE: Data preceded by a checkmark (✓) are considered permanent and will usually be cited only once. Such information should be noted on charts and records. Temporary information is continuously cited until the condition is no longer in effect.

NOTE: Data is arranged in alphabetical order by State (and within a State by City or locality).

NEW OR REVISED DATA: New or revised data are indicated by underlining the first line of the affected item. The new information is not necessarily limited to the underlined portion, which is used only to attract attention to the new insert.

ALABAMA

AYOU LA BATRE, BAY VIEW ARPT: Paved 3000' drag strip 75'S and parallel to turf rnwy. P-line each side of drag strip and wire across strip 75' from E end. N/S turf rnwy under constr, covered with stumps not to be used for acft operns.

OOKWOOD RDO: About March 4, VOR will be comsnd. Ident: "BWA." Freq: 111.0 mc Class: L-BVOR. Lctd at lat 33°14'22", long. 87°14'35". Variation 4°E. Monitoring category 1. Controlled by Birmingham FSS.

THERINE, MARTIN FLD: Clsd until spring.

RUCKER: Extsv IFR and VFR student trng conducted in area bounded by V–115 W, V–241 S, V–70 N and V–241 E. Normal hrs of operns 0600–2400 Mon-Fri from surface to 10,000'.

LMA CRAIG AFB: Extsv jet student trng conducted during dalgt hrs and occasional ngts Mon-Fri from surface to 6000' MSL. Craig ctl zone saturated dalgt hrs to 000' MSL during student trng. VFR acft should contact Craig twr on 236.6 or 119.5 mc for tfc advisories. Craig Twr is avbl for lndg advisories for acft lndg Selfield. Clsd excp for ofl bus. clsd to transit aero club acft.

SCALOOSA, VAN DE GRAAFF ARPT: 240' (462' MSL) lgtd chimney being constrd 3 nmi E (097° T) at lat 33°12'49, long. 87°32'45".

ARIZONA

GUILA, AMBROSIA ARPT: Abandoned.

USE ARPT: Clsd until aprxly March 1965.

REFREE ARPT: Bcn inop UFN.

HUACHUCA: See Yuma Notice.

LA BEND: See Yuma Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hi-density jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3–21 for unknown duration. Usable length lndg and tkof rnwy 12-30 is 2900'.

TUCSON, RYAN FLD: All rnwys clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy

eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000′ MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307

ARKANSAS

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BURBANK, LOCKHEED AIR TERMINAL TWR: ILS lclzr and glide slope rnwy 7 shutdown until aprxly Mar 5 for mod.

CORNING MUN ARPT: Clsd

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

EL MONTE, LOS ANGELES-EL MONTE ARPT: Efctv Mar 1, 1965 fld will be clsd to the general public.

EUREKA, KNEELAND ARPT: Caution, rnwy extremely soft, parking area unusable.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″; clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; to 36°34′45″, 121°48′35″; 36°35′45″, 121°49′45″; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

HAWTHORNE ARPT: REIL and txwy lgts will be inop 2300–0700 nightly UFN.

HYAMPON ARPT: Clsd UFN due flood.

KLAMATH, McBETH FLD: Clsd for unknown duration due flood damage.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: A 90-day test is being conducted by the LAX FSS to evaluate the effectiveness of a new concept in transcribed weather broadcast script. The new concept differs from present procedures in that meteorological and notice to Airmen Data is broadcast as applied to six commonly-traveled routes out of the Los Angeles Metropolitan area. Enroute weather reports follow the weather forecast for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes are spoken. Dissemination continues to be over the Los Angeles "HOMER"; also available by telephone over Spring 6–1640, Poplar 2–4111, Davis 3–4626 and via a special "Listening-only" interphone circuit which parallels the present "fastline" circuit serving subscribers at Van Nuys Airport, Lockheed Air Terminal in Burbank San Fernando Airport, Whiteman Air Park in Pacoima and Rancho Conejo Airport near Thousand Oaks.

MODESTO CITY-COUNTY ARPT: All pilots must ctc Stockton Apch Ctl prior to conducting IFR flight operns in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

POINT ARGUELLO: Civil acft desiring to transit W-53 call Navy Point Arguello on 122.5 mcs (guard 24 hrs and listen for reply on 124.4 mcs.

SANTA BARBARA RDO: Width of Naples FM at intercept alt on ILS lclzr crs 3200′ or slightly wider than standard ILS OM. During VOR outages or shutdown for maintenance, flt checks reveal numerous usable signals being emited by acft rdo shops in Los Angeles Area on Santa Barbara VOR freq 114.9 mc are to be disregarded.

COLORADO

DENVER, LOWRY AFB: Ctld firing (demolition) area in use daily except Sat, Sun and holidays 1430–2330Z within a radius of 2500′ of point lctd 104°41′11″W, 39°36′30″N up to 1000′ above surface.

EAGLE: Ctld firing for use of Camp Hale. Area is nmi radius from point lat 39°27′, long 106°19′30″ max ordinate of firing 15,000′ MSL. Time of use continuous 24 hrs daily. Controlling agency: Commanding General, Fort Carson.

HANOVER RDO: About March 4, H facility will be decomsnd.

PUEBLO: Controlled Firing (demolition) area for use of the Pueblo Ordnance Depot established within the following described area: bounded on N by lat 38°22′00″ E, long 104°21′22″; S, lat 38°18′00″; W, long 104°22′50″. Hrs of usage: 0900–1600 MST, Mon-Fri. Max alt 5000′ above the surface.

✓VERNON, STULTS ARPT: Abandoned.

CONNECTICUT

MARBOROUGH, LESNEWSKI FLD: Clsd to all acft until aprxly June 1, 1965.

WATERBURY ARPT: Clsd.

DELAWARE

MIDDLETOWN, SUMMIT AIR PARK: E/W rnwy clsd until aprxly April 1965.

DISTRICT OF COLUMBIA

WASHINGTON, MT VERNON: Low flying acft requested to avoid immediate vcnty Mt. Vernon estate lctd W bank Potomac River 10 mi S Washington Natl Arpt.

WASHINGTON NATL ARPT: JET POLICY FOR WASHINGTON NATIONAL AIRPORT—Due to

limited ground handling facilities at the Washington National Airport, flight operations of only those turbojet aircraft that meet the following criteria can be accomodated: A. Except under emergency conditions, only approved types of turbojet aircraft of short or medium range (1) are engaged in corporate, private charter or rental type operations, and (2) solely intend to utilize the Airport's General Aviation ground service facilities. B. Currently approved types of medium and short range turbojet aircraft are as follows: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. Short or medium range turbojet aircraft of types not listed above must secure advance authorization from the Airport Manager. Requests for such authorization should be made at least 48 hours in advance of the planned aircraft arrival at the Airport. D. Because of limited capabilities, the Airport cannot accomodate operations of turbojet aircraft for proficiency or practice take-off or landings.

FLORIDA

RIPS TO HAITI, PUERTO RICO AND DOMINICAN REPUBLIC SPECIAL NOTICE: Non-commercial acft are prohibited from landing in HAITI, unless specific prior authorization is obtained. Seven working days are normally required to obtain clearance. Pilots planning to fly between the mainland and PUERTO RICO should plan their route to avoid unscheduled emergencvy fuel stops. Pilots planning to fly to the DOMINICAN REPUBLIC should refer to the International Flight Information Manual for complete details.

)'OA, CENTRAL BREVARD COUNTY ARPT: Clsd until further notice for constr.

T. MYERS, LEHIGH ACRES WEST ARPT: 995' (999' MSL) lgtd TV twr being constrd 6 nmi SE 129° T) at lat 26°35'09", long 81°37'53".

KISSIMMEE, AIR-LANDO ARPK: Clsd to the public.

ENSACOLA: Intensive student conventional and jet VFR trng activity crossing V22 at 11,000' MSL btn Navy Saufley (NUN) VOR and Navy Whiting VOR 135 radial; and within a radius of 3 nmi Whiting NAAS and Saufley NAAS at and below 2500' MSL. Suggested alter course or altitude to avoid these areas. Radar VFR advisory service avbl on 119.0, 286.0 mc for acft eastbound or arriving from the E, or on 123.9, 281.8 for acft westbound or arriving from the west.

ERRY-FOLEY ARPT: 500' (545' MSL) lgtd rdo twr being constrd 3 nmi E (080°T) at lat 30°04'19", long 83°31'28".

AMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft rcvg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

ALKARIA ARPT: Rnwy 13-31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1960'.

ALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R-2915A, R-2915B and R-2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

WINTER HAVEN, CYPRESS GARDENS ARPT: Clsd to public for unknown duration.

GEORGIA

CAIRO MUN ARPT: Clsd due constrn until aprxly May 1, 1965.

COCHRAN ARPT: Clsd until aprxly May 1965.

✓MACON MUN ARPT: 203' (547' MSL) lgtd microwave twr constrd 8 nmi SSE (163° T) at lat 32°34'03", long 83°36'08".

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

SAVANNAH, SAFFOLD FLD: 247.5' (253.5' MSL) and 254' (261' MSL) lgtd steel twrs being increased to 254' (261' MSL) and 279' (286' MSL) 4 nmi NNW (317°T) at lat 32°04'47", long 81°02'54".

SAVANNAH SAFFOLD ARPT: Clsd until further notice.

STATESBORO MUN ARPT: 1000' S end rnwy 18-36 to intsxn of rnwy 13-31 clsd for unknown duration. Remaining rnwy rough usable length 4200' both directions.

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.

CAYUSE CREEK USFS ARPT: Skiis only winter months.

COTTONWOOD MUN ARPT: Clsd during winter months.

CRAIGMONT ARPT: Clsd during winter months.

CAMAS COUNTY ARPT: Clsd for unknown duration.

CAREY MUN ARPT: Clsd for unknown duration.

DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.

ELK RIVER ARPT: Clsd aprxly May 1965 due winter months.

HORSE HEAVEN USFS ARPT: Skiis only winter months.

MAGIC RESERVOIR AIR STRIP: Clsd for unknown duration.

MAGEE USFS ARPT: Skiis only winter months.

RICHFIELD, REYNOLDS ARPT: Clsd until May 1965.

SPIRIT LAKE ARPT: Clsd winter months.

VICTOR MUN ARPT (BENNETT FLD): Clsd UFN.

ILLINOIS

CHICAGO, MIDWAY ARPT TWR: Radar advisory to all acft operg VFR. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000' MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft lndg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this

service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.

CHICAGO-O'HARE INTL ARPT: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts. Caution advised.

PEORIA, GREATER PEORIA ARPT: 5′ unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.

POLO, HAMILTON FLD: Closed until further notice due ice and snow.

STOCKTON ARPT: Clsd UFN.

SULLIVAN COMMUNITY ARPT: Closed winter months due soft rnwys, mrkd with "X".

INDIANA

✓HUNTINGTON, SCOTT RANCH ARPT: Abandoned.

ORLEANS ARPT: Clsd to acft over 6000 lbs during winter months.

SCOTLAND: Controlled explosive demolition is conducted week days 0730–1600, at the U.S. Naval Ammunition Depot, Crane, Ind in a controlled firing area one nmi in diameter lctd 160°/8.7 nmi from Scotland VORTAC from the surface to 2200′ MSL.

IOWA

CHARITON ARPK: Clsd for rnwy paving.

MT PLEASANT MUN ARPT: Clsd until aprxly April 15.

NEWTON MUN ARPT: NE/SW rnwy clsd.

WASHINGTON MUN ARPT: Clsd until aprxly June 1, 1965.

KANSAS

LYONS MUN ARPT: During dalgt hrs agricultural acft on tkofs are using nonstandard patns due to proximity of congested areas and are proceeding at low altitude out of tfc patn area. Constr on all txwys and ramp areas. NW/SE and NE/SW rnwys clsd.

SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, efctv 30 September 1961, is revised as follows effective immediately: Add Note: Radar vectoring to final approach course authorized.

TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Amdt. 16: ILS–13. Amdt 17 and ILS–31. Amdt 7 are amended as follows, effective immediately: C–dn, two eng or less, 65 kt or less, 600–1 vice 500–1. Unlighted smoke stack 1137′ msl within circling criteria.

KENTUCKY

WEST LIBERTY, MORGAN CITY ARPT: Clsd until aprxly March 15, 1965.

LOUISIANA

GRAND ISLE RDO: About March 15, VOR will be comsnd. Ident: "GNI." Freq: 109.4. Class: L–BVOR. Lctd at lat 29°10′26″, long 90°06′12″. Variation 6° E. Monitoring category 1. Ctld by New Orleans FSS.

HOUMA, HAMMONDS AIR SERVICE SEAPLANE BASE: 408′ rdo twr mrkd and lgtd lctd 0.2 nmi SW.

HOUMA MUN ARPT: 200′ (210′ MSL) lgtd tmpry oil derrick constrd 1 nmi NNW (333°T) at lat 29°35′01″, long 90°40′30″. Will be removed 7/1/65.

NATCHITOCHES MUN ARPT: Rnwy lgts inop until aprxly March 1, 1965

✓NEW IBERIA ARPT: Formerly carried as New Iberia NAAS.

✓ST. MARTINVILLE ARPT: 300′ (315′ MSL) lgtd rdo twr constrd 5 nmi SSE (150°T) at lat 30°00′58″, long 91°45′59″.

MAINE

BAR HARBOR ARPT: Rnwys 7–35, 4–22 plowed 300 x 105′.

BLUE HILL ARPT: Clsd winters.

DEBLOIS FLIGHT STRIP: Clsd winters.

EASTPORT MUN ARPT: Rnwys not plowed.

HOULTON INTL ARPT: Rnwy 5–23 plowed winter months.

HUDSON, ROBBINS FLD: Clsd winters.

LUBEC ARPT: Clsd winters.

MILLINOCKET MUN ARPT: Rnwy 11–29, txwy and ramp plowed winter months. Rnwy 16–34 ski operns only, snow banks across 16–34 at intersection with 11–29. Acft using 16–34 and 11–29 not visible to each other until apchg intersection.

MOOSE RIVER, SKY LODGE ARPT: Closed winters.

OLD TOWN MUN ARPT: Rnwy 15–33 plowed full length and width.

PRINCTON MUN ARPT: Rnwy 6–24 not plowed winter months.

THOMASTON ARPT: Rnwy not plowed during entire winter.

WINTERPORT, FERNALD ARPT: Rnwys not plowed.

MARYLAND

ANNAPOLIS SPECIAL NOTICE: Electromagnetic radiation vcnty parabolic antenna at Greenburry Point lat 38°58′22″, long 76°27′00″, about 2.3 nmi ESE, immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel, acft, pwr service, insts. Pilots of helicopters warned against hovering in vcnty and should avoid apchs closer than ½ mi.

CHESTERTOWN, GILL ARPT: Clsd to transients Dec 15, 1964–March 31, 1965.

CHURCHTON, DEEP CREEK ARPK: Clsd until May 15, 1965.

COLLEGE PARK ARPT: Open. The abandoned arpt depicted on the Washington Sectional Chart is Erco Fld.

EASTON MUN ARPT: Rnwy 14–32 clsd ngt operns, due lgts inop.

ELKTON, LOVETT ARPT INC: Clsd to all acft until aprxly April 1.

GOLDEN HILL ARPT: Clsd winter months.

PARK HALL ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 242° (M) from the arpt at and below 1200′.

PINEY POINT ARPT: Flight in Restricted Area R–4007 authorized only within one mi radius of arpt and in one mi wide corridor 347° (M) from the arpt at and below 1200′.

STEVENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

PECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.
PECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island letns. Signs funtion with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.
OSTON ARTCC: Nov 24, extended radar enroute tfc ctl service will apply to acft departing from destined to Concord Mun, Hartness Mun, Laconia Mun Airports while enroute via portions of Blue 63, V-141, V-141E, V-93, V-39, V-151, V-151W, V-1697 and V-1695. Normal clearance limit is arpt of destination. Primary freq for this service is 127.3, or 354.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd at Saratoga Springs, N.Y. peripheral site.
OSTON, LOGAN ARPT: All standard instrument apch procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorized from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. CAUTION: 505' bldg 1.7 mi W of arpt.
AK BLUFFS ARPT: Clsd winter months.

MICHIGAN

ICHIGAN: The following arpts are clsd for unknown luration due to winter months. Cheboygan, Marx Fld.; Munising, Hanley Fld.; Houghton, Sands Arpt.
APENA, PHELPS-COLLINS ARPT: Rnwy 12-30 clsd to all operns winter months.
ATTLE CREEK—KELLOGG FLD: Proc. No. ILS-22, Amdt 1 is revised as follows, effective immediately: Basic S-dn minimums Runway 22, 200-½.
OYNE CITY MUN ARPT: NW/SE rnwy clsd UFN.
DILLAC MUN ARPT: All rnwys except 7-25 clsd to all but ski equipped acft for the winter.
IO, WESTPORT ARPT: No snow removal, ctc Flint FSS for current info.
UMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58'00"N long 83°47'30"W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.
MIRA, KANDAHAR ARPT: No snow removal during winter months.
NTON, AERO ACRES ARPT: No snow removal, ctc Flint FSS for current info.
INT, BISHOP ARPT: Caution, small herd of deer on he S half of fld.
ANKFORT CITY-COUNTY ARPT: Rnwy 1-19 clsd or winter due to snow.
USHING, DALTON ARPT: No snow removal during winter months. Ctc Flint Rdo or Unicom for fld conditions.
YLORD RDO: State owned and operd VOR operg 24 rs daily, VFR use only. Class: L-BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00'48", long 84°41'30", Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring ategory (1)
YLORD, OTSEGO CO ARPT: No snow removal during winter months.
SSEL ARPT: No snow removal during winter months.
HILLMAN ARPT: Open skl equipped acft only winter months.
HOUGHTON LAKE, ROSCOMMON CO ARPT: Rnwys 18-36, 4-22 clsd to all but ski operations for the winter due to snow.
HOUGHTON LAKE HEIGHTS, HOUGHTON LAKE STATE ARPT: Skils only during winter months.
INDIAN RIVER, CAMPBELL MUN ARPT: No snow removal during winter months.
LAPEER, DUPONT LAPEER ARPT: Ctc Flint FSS for current info during winter months.
LEWISTON ARPT: Open skl equipped acft only winter months.
MANISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd UFN.
MARQUETTE CO, ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000' AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000' AGL.
MENOMINEE RDO: Control zone efctv immediately from 0700-2030 hrs local time daily UFA.
MIO ARPT: Open to ski equipped acft only for the winter months.
MUNISING, HANLEY FLD: Clsd until aprxly May 1965.
NEWBERRY, LUCE COUNTY ARPT: No snow removal during winter months.
OWOSSO CITY ARPT: Ctc Flint FSS for current info during winter months.
SAGINAW MUN ARPT: Clsd to all ngt operns UFN.
SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)
STAMBAUGH CITY ARPT: Clsd until further notice.
TRAVERSE CITY ARPT: Rnwys 13-31 and 5-23 clsd for the winter.
VANDERBILT, SUNGLENN ARPT: No snow removal during winter months.
WASHINGTON HARBOR, ISLE ROYALE NATIONAL PARK: Jan. 30 until aprxly March 20, a flashing red bcn will be in opern as a navigation aid for small acft engaged in winter operns on this island. Burning of smoke producing material will be in progress on Mt. Feldtman and outer Washington Harbor during late February and early March.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.
BEMIDJI: Control zone 0730 to 2000 local time.
BRAINARD: Control zone efctv 0800 to 1900 local time, 0700-1930 until Jan 1
COOK MUN ARPT: Closed winters.
DEER RIVER, BOWSTRING TOWNSHIP ARPT: Closed winters.
DEER RIVER MUN ARPT: Closed winters.
ELY MUN ARPT: Clsd to wheeled acft. Not plowed UFN.
EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt. Ctc Hibbing FSS for blasting schedule.
LITTLE FORK MUN ARPT: Clsd to wheeled acft winter months.

MINNEAPOLIS ARTCC: Enroute radar service except radar weather advisory service is available in the Minneapolis advisory area E of a line from a point on the United States-Canadian boundary 126 nmi NW of Sault Ste. Marie, Mich. VOR thence SW to Houghton, Mich VOR thence SW to 46°39′, 89°45′, thence via the Minneapolis area positive ctl boundary to the common Minneapolis-Chicago boundary at 45°34′, 89°18′. Radar jet advisory service except radar weather advisory service is available along J90 and J16 btn 25 nmi W of Sioux Falls, S. Dak and 33 nmi SE of Dupree, S. Dak; along J32 btn 70 nmi NE of Aberdeen, S. Dak and 32 nmi E of Dupree, S. Dak.; and along J70 btn 50 nmi E of Aberdeen, S. Dak; and 80 nmi NW of Aberdeen, S. Dak. Due to eqpmt characteristics, radar weather advisory service cannot be provided.

ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1–19 clsd until aprxly May 1, 1965.

WARREN MUN ARPT: Open skd acft only.

WORTHINGTON: Control zone efctv 0700 to 1830 local time.

MISSISSIPPI

McCOMB, PIKE COUNTY ARPT: Rnwy 7–25 clsd for unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not pull off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V–13 vcnty Grandview, Richards-Gebaur Arpt., due concentration of tfc alts. Where possible, suggest all users operate via V–13E btn Kansas City and Butler Arpts.

FT. LEONARD WOOD—FORNEY AAF: Radar Proc. No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C–dn minimums 500–1, 600–1½, 600–1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd to civil acft except on business and on figt plan. Two-way rdo and prior clearance from twr rgrd before entry into R–4501. Enter R–4501 on SE heading of 140° from Waynesville, Mo.; SSW heading 210° from Vichy, Mo. (VOR); WNW heading of 290° from Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2–20 clsd. Txwy from S end of mil apron to rnwy (1500′) usable for takeoff and lndg in emgcy or on req.

MONTANA

The following is a list of fld clsd winter months: Condon USFS, Conner, Shook Mountain Arpt, Helmville, Wine Glass Arpt, Libby Arpt, Meadow Creek USFS Arpt, Ovando, Clearwater Arpt, Ovando, Heart Bar Airstrip, Pole bridge, Quarter Circle M.C. Arpt, Ronan Arpt, Seeley Lake Arpt, St. Ignatius Arpt, Thompson Falls Arpt, Troy USFS Arpt, Whitefish Arpt.

GREAT FALLS ARTCC (NOTIP): En route radar service radar weather advisory service available throughout the enlarged Great Falls ARTCC/NOTIP area Due to equipment characteristics radar weather advisory service cannot be provided in this area nor on J107 from the centers eastern boundary to the Canadian border where civil turbojet radar advisory service is being provided by Great Falls ARTCC/NOTIP. VFR service in the Kalispell, Montana area will continue to be available through use of the ARTCC freq 120.4 mc. VFR flights in the Kalispell area call 'Great Falls Center—VFR Service'. Further information is contained in a letter to Airmen that has been distributed in the area.

✓GREAT FALLS INTL ARPT: Rnwy 11–29 permnly clsd

KALISPELL, FLATHEAD CO ARPT: Rnwy 11–29 and 7–25 clsd due snow UFN. Rnwy 1–19 remains open

NEBRASKA

HASTINGS MUN ARPT: Constrn in progress.

CRETE MUN ARPT: Clsd due rnwy constrn.

LINCOLN MUNICIPAL AIRPORT/AFB: Proc. No. ILS-35L, Orig., is revised as follows, effec. immediately: Straight-in minimums of 400–¾ required when glide slope not utilized.

OMAHA RDO: Voice comms with Omaha, Nebr FSS unusable below 3600′ on V–6–8S btn 36 and 55 nmi E of VORTAC excp tsntg 116.3 mc.

SCRIBNER, SCRIBNER STATE ARPT: NE/SW rnwy tmprly clsd.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio for information concerning release time of Restricted Area R–4803. At other than release times flight is restricted at 8000′ MSL and below along airways in N portion and at 18,000′ MSL and below S of airways in R–4806. Geographical coordinates of R–4803 are from 3 nmi radius circle centered at lat 39°20′, long 118°52′ and within 3 nmi W and 2 nmi E of a line extending 349° T from the circles center 15 nmi NNW.

SPECIAL NOTICE: Demolition of ordnance being conducted daily UFN Mon-Fri 1000–1500 with danger to acft from surface to 10,000′ MSL within a one and one half mi radius of coordinates 38°14′30″, long 118°37′45″. aprxly 20 mi S of Naval Ammunition Depot at Hawthorne.

LAS VEGAS: Hi-density jet tfc: Pilots on other than IFR clearance should either avoid or use extreme caution when traversing the following areas within which Nellis AFB hi-density jet tfc is operg. Hours of Operation: 0600–1800 local time, Monday thru Saturday, continuous daily at 9000′ MSL and below within a 5 mi radius of Nellis AFB. Surface to 23,000′ MSL within fig boundaries: 36°42′, 115°18′; 36°42′, 114°32′; 36°26′25″, 114°52′15″; 36°23′30″, 114°48′20″; 36°27′30″, 114°31′; 36°24′50″, 114°25′10″; 36°30′, 114°15′40″; 36°32′, 114°12′; 35°56′, 114°12′; 35°56′, 115°45′30″; 36°07′, 115°50′; 36°41′, 115°50′; 36°41′, 115°42′; 36°35′, 115°42′; 36°35′, 115°37′45″; 36°26′, 115°23′25″; 36°23′25″, 115°23′25″; SE along US 95 to 36°14′20″, 115°14″ west to closest 5000′ e'ev line at 36°13′, 115°22′; SW along 5000′ elevation line to 36°08′50″, 115°30′; to point of beginning. Surface to 23,000′ MSL within fig boundaries: 36°42′, 115°18′; 36°26′, 115°23′25″; 36°23′25″, 115°23′25″, SE along US 95 to 36°14′20″, 115°14″; 36°13′, 115°07′30″; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15′30″, 115°07′45″; 36°31′, 114°56′40″; 36°34′30″, 114°41′30″; 36°42′, 114°32′; to point of beginning. Btn 5500′ MSL and 9000′ MSL within fig boundaries: 36°31′, 114°56′40″; 36°42′, 114°12′; 36°32′, 114°12′; 36°23′30″, 114°48′20″; to point of beginning. Btn 10,000′ MSL and 23,000′ MSL within fig boundaries: 36°14′20″, 115°14′; west to closest 5000′ elevation line at 36°13′, 115°22′, SW along the 5000′ elevation line to

36°08'50", 115°30'; 36°10', 115°10'; to point of beginning. Surface to 9000' MSL within fig boundaries: 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30", 114°48'20"; 36°12', 114°58'; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and depature route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000' MSL. Frequent violations reported of Restricted Area R-4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000'.

AS VEGAS, McCARRAN FLD: VASI inop until aprxly May 1, 1965.

INDEN, DOUGLAS COUNTY ARPT: Caution extensive glider operns dalgt hrs. Caution student aerobatic training dalgt hrs in vcnty and E of rnwy 16-34 from 6500' to 9000' MSL.

NEW HAMPSHIRE

ILMANTON IRON WORKS, BESSE FLD: Clsd winters.

ORTH STRADFORD ARPT: Clsd winters.

NEW JERSEY

TLANTIC 'CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 991 mc ident: XAB comments required.

ASKING RIDGE, SOMERSET HILLS ARPT: Clsd to transient acft until spring 1965.

OVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000' MSL. Prior entering area ctc Teterboro Rdo.

ILLVILLE MUN ARPT: Operns restricted to hard surface areas only.

EWARK AIRPORT: Proc. No. ILS-22, Amdt. 9, effec. 10 Oct 64 and ADF Proc. No. 2, Amdt. 4, effec. 10 Oct. 64. During the period of the Yardley, Pa. VORTAC shutdown, the missed approach procedures are revised as follows: ILS-22: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished, climb to *1500' straight ahead on SW crs. of Newark ILS to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000', hold NE Chatham RBn, one-minute right turns, inbound crs. 241°. *2000' for jet aircraft. ADF No. 2: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished within 5.8 miles after passing LOM, climb to *1500' straight ahead on crs. 217 degrees to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000'. Hold NE Chatham RBn, one-minute right turns, inbound crs. 241 degrees. *2000' for jet aircraft.

EAN CITY ARPT: Clsd until spring, 1965.

ENTON, MERCER COUNTY AIRPORT: Efctv with and during the period of the Yardley, Pa. VORTAC shutdown, the flwg tmpry ADF procedure authorized: Arpt Elev: 213'. Facil class: MHW. Ident: TTN. Facil ictd on arpt—lat 40°16'39"N, long. 74°49'11"W. Freq: 369 kcs. Transitions: From PNE VOR to TTN RBn, Direct, 2000'. From RBV to TTN RBn, Direct, 2000'. Radar transitions authorized in accordance with approved radar patterns. Procedure turn S side of crs. 23°. Outbnd, 050°. Inbnd, 2000' within 10 mi of TTN RBn. Minimum alt over facil on final apch crs, 900'. Facil on arpt. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 miles after passing TTN RBn, climb on crs 050° to 2000' within 10 mi, then make left turn and proceed direct to TTN RBn. Hold SW, one minute right turns, inbound crs 050°. Ceiling and visibility minimums: T-dn, two eng. or less, 300-1; over two engines, 200-½. C-dn, two eng. or less, 700-1; over two engines, 700-1½. A-dn, all aircraft; 800-2. CAUTION; Tower 433' MSL 2.4 nmi SW or arpt.

NEW MEXICO

ALAMOGORDO MUN ARPT: Pole 1200' from apch end rnwy 16.

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700-1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR wea conditions and ictd aprxly 8 mi SSE Kirtland AFB at lat 34°57'30", long 106°33'45". Soil clods may be thrown to a radius of 1000'.

HOBBS MUN ARPT: Rnwy 8-26 clsd until aprxly Mar 15, 1965.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

NEW YORK

ANTHONYS NOSE: Awy bcn site #4 will be permly decmnsd.

DUNKIRK RDO: MHW will be permly decmsnd.

KEESEVILLE ARPT: Clsd winters excp to skl acft.

MORRISONVILLE, NORTHWAY ARPT: Rnwy plowed during winter.

NEW YORK ARTCC. About Apr 4, freq 137.65 mc will be decmsnd.

NEW YORK CITY: 1520' rotating bcn atop Empire State Bldg ictd aprxly 11 mi NW JFK Arpts opers on rotating basis dusk to midngt. From midngt to day break bcn in fixed position with light beamed directly S.

NEW YORK, BROOKLYN SEAPLANE BASE: Clsd until aprxly May 1965.

NEW YORK JOHN F. KENNEDY INTL TOWER: August 1, 1964, Kennedy Tower began an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling reducing frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a single control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runway currently in use shall be issued at this time. Time and altimeter setting will be isued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall consist of only that which will concern the departure aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs., when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay ,and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK LA GUARDIA ARPT: Until Apr 25, 1965, arpt will be clsd to all acft operns from 2330 to 0700 EST Monday thru Saturday due to constrn.

NORTH TONAWANDA, COUNTY LINE ARPT Clsd to transient acft until May 15, 1965.

ORCHARD PARK: Clsd until spring.

ROMULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350' radius centered at lat 42°46'59"N and long 76°53'06"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

STORMVILLE ARPT: Clsd UFN due to mud and slush.

TICONDEROGA ARPT: Clsd for duration winter season.

WARWICK MUN ARPT: Clsd until aprxly Jun 15 due to constrn.

WATERTOWN MUN ARPT: Rnwy 1–19 clsd to all operns UFN. Will not be maintained during winter months.

NORTH CAROLINA

CHARLOTTE, DOUGLAS MUN ARPT: Rnwy 18–36 clsd until aprxly May 1 due constrn.

ELIZABETH CITY MUN ARPT: Due to heavy VFR GCA tfc lndg rnwy 10 at the U.S. Coast Guard Station, it is recommended that all tfc lndg at the Elizabeth City Mun arpt contact Elizabeth City Coast Guard twr on 126.2 mc for tfc information. Acft without radio enter 500' pattern from the west.

FAYETTEVILLE, POPE AFB: Extensive operns to 2,000' MSL 1200–2200Z Mon thru Fri. Pilots of all acft are advised that in an area from Lillington, N.C., north along arwy V3E 6 NM to Chalybeate, N.C., counterclockwise west 12 NM to Broadway, N.C., thence SW 38 NM to Marston, N.C., thence E 26 NM to Rockfish, N.C., thence NE 27 NM back to Lillington: intensive training will be conducted W of V3E using heavy four engine transport and prop jet (C–124 and C–130) acft, consisting of single, formation, and multiple formation flights. These acft oper 2,000' and below under VFR conditions, conducting low level (300' AGL to 2,000' MSL) runs in the maneuvering area described above, for troop and cargo drops into R-5311. Similar operations are conducted in the vicinity of Mackall AAF with drops at Mackall AAF.

NORTH DAKOTA

LANGDON MUN ARPT: Rnwy lgts inop UFN. Open for ski acft only.

MOHALL ARPT: Lgtg facils inop until spring.

PEMBINA MUN ARPT: E/W rnwy clsd and constrn on rnwy 14–32 until aprxly Jul 15, 1965.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500' MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area bounded on S by lat 41°11'30", on N by lat 41°12'20", E long 81°04'22"; W long 81°06'14". Demolition activities in this area will go no higher than 5000' MSL and only when ceiling of 10,000' or better and vsby 10 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4–1246).

TOLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400–2300 due to drag races all rnwys UFN.

OKLAHOMA

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet ops is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (fld 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of

homa at 3500' MSL and maintain 3500' MSL via ay until within a three nmi radius of Woodring rt before starting descent. Departing Woodring rt W bound, climb to 3500' MSL within 3 nmi radius Woodring Arpt then proceed W bound over hiway il reaching the town of Lahoma maintaining 3500' L. To and from the S maintain 2300' MSL E of an ended N/S line to a point abeam the town of Bison. and from the N and E maintain 4000' MSL or w within 20 mi of Woodring Arpt. Low level jet igation missions now being performed at 1000' 500' AGL at 300 knots along the following routes: ce AFB: 8 nmi N of Fairview: Ft Supply; Darett: Briscoe; Strong City; Bridgeport; Enid. ce: 8 nmi N of Fairview; Knowles; Bucklin, Kans; elton, Kans; South Haven, Kans; Enid. Vance; ton, Vichy, Medicine Lodge, Kans; Rago, Kans; 1. Contact Vance Apch Control for tfc advisory 1-2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

HOMA CITY, WILL ROGERS WORLD ARPT: N/S rnwy under constrn 1 mi E of existing N/S y. Clsd to all operns.

WATER, SEARCY FLD: Intermittent constrn in ress all rnwys until aprxly Aug 31, 1965.

S MUN ARPT: N/S rnwy clsd until July 1, 1965 nstrn turf rnwy.

N. CIMARRON FLD: Use turf rnwy 17–35 only.

OREGON

llowing arpts are clsd for an unknown duration, to winter: Beaver Marsh; Stearns; Cres- Lake Flight Strip; Idanaha, Strantiam; Lake of Woods; Lapine; Pinehurst.

AL NOTICE: Periodic AA firing (Warrenton Ary Range), during dalgt hrs from surface to alt 0,000' in area bounded by 46°12'N, 124°10' W e 46°12'N, 123°59'20''W thence along a line one mi E of shoreline to 46°02'N, 123°55'30''W thence 2'N, 124°10'W thence to point of beginning. Con- Portland or Hoquiam Rdo for actual firing dates.

S MUN ARPT: Rnwy lgts inop until further e.

KINGS, CRISSEY STATE LINE AIRSTRIP: clsd for unknown duration due damaged rnwy.

JUNCTION, SPORTSMENS RANCH ARPT: Clsd further notice.

H BEND ARPT: About 17 nmi N a moored inum colored Vee shaped balloon 75,000 cubic ft city being used in logging operns during dalgt maximum alt 1000' MSL. During hrs darkness be lowered to 100' AGL.

CA RIVER, SCOTTSBURG TO REEDSPORT: r canyon crossed by 4 electric power lines. Twrs oth banks mrkd by red lgts. Easternmost cross- also mrkd with 20'' orange aluminum balls spot from both sides of the river.

PENNSYLVANIA

ERSPORT, POTATO CITY ARPT: Clsd winter hs.

ERVILLE ARPT: Clsd to all transient acft until y Jan. 1966 due to banner towing.

SBURG, ADAMS COUNTY ARPT: Arpt will be ntermittently until Apr 1 due to soft fld conditions.

VILLE MUN ARPT: Clsd to wheeled acft

ER, DEVENE RARPT: Arpt will be clsd until 1, 1965 due to soft conditions and snow.

NEW ALEXANDRIA ARPT: Clsd until aprxly May 1, 1965.

PHILADELPHIA INTL ARPT: Excavation 1 to 3 ft deep, 100' long and 150' wide aprxly 30' from apch end rnwy 27. Ant structure aprxly 5' ht, 45' long, 217' from apch end rnwy 27 UFN.

PUNXSUTAWNEY MUN ARPT: Arpt clsd until futher notice due to constrn.

SOUTH CAROLINA

CHARLESTON AFB/MUN ARPT: Rnwy 3–21 clsd.

CHERAW MUN ARPT: Closed until aprxly March 15.

COLUMBIA ARPT: First 1000' rnwy 10 clsd during dalgt hrs due constrn

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

LAKE CITY, BROWN ARPT: Rnwy 1–19 clsd until aprxly Apr 1 for resurfacing and extension on N end.

SOUTH DAKOTA

ESTELLINE ARPT: Clsd during winter months.

MOBRIDGE RDO: State owned and operd VOR operg 0700-1900, VFR use only. Class: L-VOR. Freq: 108.6. receivers 122.1. Ident: MBG. Lctd lat 45°33'07'', long 100°21'56''.

TENNESSEE

MURFREESBORO MUN ARPT: Glider towing and soaring activity conducted dalgt hrs at and in vcnty arpt.

NASHVILLE, CUMBERLAND FLD: Hvy equipment crossing S end rnwy dalgt hrs Mon-Sat noon.

TEXAS

AMARILLO: Controlled Firing Area lctd 10 mi NE of end of NE SW rnwy of Amarillo AFB/Mun: Lat 35°-21'09'', long 101°37'01'' E to 35°21'12'', 101°32'26'', S to 35°17'56'', 101°32'26'' W to 35°17'56'', 101°37'04'', N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552'.

BEEVILLE (NAAS CHASE) RDO: During shutdown VOR (Mar 4 to Mar 8) Austwell Int will be usable as DME only.

BIG SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V–66, including area W along V–16S to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V–66, to N–S line drawn through town of Loraine, Tex. Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 60 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

BIG SPRING HAMILTON FLD: Caution, all alt 3,600' MSL and above intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600' MSL.

BIG SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100' MSL and above, intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600' MSL.

BROWNSVILLE, RIO GRANDE VALLEY INTL ARPT: Rnwy 13R–31L clsd except that lgt acft may be cleared to land on rnwy 13R.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200′ MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13–31 clsd ufn.

DALLAS, LOVE FLD: Two bldgs being erected 5 nmi SSE (144°T) at lat 32°47′00″, long 96°47′50″. Bldg A max tmpry hgt 661′ (1115′ MSL). Completed bldg will be 595.5′. (1039′ MSL). Bldg B will reach max tmpry hgt 710′ (1149′ MSL). Completed bldg will be 609.5′ (1049′ MSL).

EDINBURGH MUN ARPT: Rnwys rough. Use Caution.

HONDO: Randolph AFB jet T-38 and T–33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 600′ above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 3000′ MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress. Non-scheduled dropping of personnel and equipment conducted from alt of 700′ to 1000′ above the surface on W side arpt Tues, Wed and Fri 1900–2300C and on Sat and Sun 1500–2100C.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns for unknown duration.

HOUSTON INTL ARPT: Inbnd flts ctc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° ctc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038–188° ctc HOU apch ctl on 118.1 or 307.1.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN, HOOD AAF: A VFR Practice Instrument Apch Procedure has been published in a loose leaf format for use by USAF Training Command Pilots. Civil requests for this chart should be submitted to the Director, Coast and Geodetic Survey, Attn: Distribution Division, 14th and Constitution Avenue, Washington, D.C. 20230.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1. Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controlled airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

KILLEEN MUN ARPT: Clsd for rebuilding until aprxly May 15, 1965. Tmpry 1600′ sod strip avbl for use during dalgt hrs when dry.

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000′ MSL in this area. It this is not feasible ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius Laredo. Use extreme caution due extsv jet trng.

✓LEVELLAND MUN ARPT: 235′ (3751′ MSL) microwave twr constrd 3 nmi NNW (347° T) at 33°35′16″, long 102°22′46″.

LUBBOCK MUN ARPT: N 400′ rnwy 17L–35R clsd ing constrn new E/W rnwy Usable lndg length directions 3000′.

MIDLAND AIR TRML: Webb AFB T-38 acft will making practice ILS apchs to transition from W 1 Intensive student jet trng area to the Midland acft will repart Webb 1 Intensive Student Jet area northbound at 12,000′ MSL descending to interc W course of the Midland ILS lclzr. All transition practice ILS apchs shall be during dalgt hrs in V conditions and only when Webb 1 Intensive Stud Jet trng Area is in use.

SAN ANTONIO, CAMP BULLIS: Controlled Firing A as follows: A circular area 1¼ smi in radius cente at lat 29°42′00″, long 98°33′50″. Altitude: surfac 3000′ MSL (1500′ AGL). Time and use: 0630 to hrs lcl time, Fri of each wk for destruction of ammu tion by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and c ventional acft making GCA apchs suggest all operg VFR that will traverse area N of Randolph main at least 10 nmi from the base and above MSL. Hvy conventional and jet instrument acro and transition trng in SE quadrant btn V198 and and V163W 60 nmi radius of Randolph Mon-Fri. jet tfc will be crossing V163 and V163W S of the of San Antonio at the appropriate hemispherical ing altitudes en route to Hondo Aux Arpt. Hvy VFR penetrations and apcrs will be made from the Vernia VOR to Randolph AFB. Should necessity flight in the close proximity of Randolph AFB, aircr should contact Randolph Tower on 126.2mcs for ad advisories.

TEMPLE, DRAUGHON-MILLER ARPT: Runway 1 clsd until further notice.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt 5 and ADF 1, Amdt. 5 are revised as follows effect immediately: Delete straight-in minimums.

UTAH

BRYCE CANYON ARPT: Rnwy 12–30 clsd UFN snow.

BRYCE CANYON, KANAB MUN ARPT: Rnwy 1 inoperative. Rotating beacon changed to white.

DELTA MUN ARPT: Clsd to all ngt operns 1800-0 MST UFN.

DUCHESNE MU NARPT: No snow removal equip svc, during winter months.

FLAMING GORGE DAM SITE: Cables and pwr l suspended from 2 twrs on W side to one twr on E of canyon across Green River aprxly 100′ higher canyon rim.

SALT LAKE CITY RDO: Test in progress using ARTCC area discrete frequency to extend VFR ground coverage. VFR flights in the Salmon-Ida area when unable to contact a nearby FSS thru normal channels may call Salmon Radio on 125.3 for flight assistance service. Salt Lake City FSS reply on 125.3 mc from the air/ground site at 45

'02'W, elevation 9104' MSL. Further information ontained in a letter to Airmen being distributed in area.

VERMONT

RE-MONTPELIER ARPT: Rnwy 5-23 clsd until xly Apr 15, 1965.

TOL MUN ARPT: Open winters. N-S rnwy will plowed.

PORT MUN ARPT: Rnwy 5–23 clsd until about May 65 due snow.

AND MUN ARPT: Rnwy 13–31 clsd winters.

VIRGINIA

GREN: Restricted Area R–6611, 6612, 6613 routine y air and surface firing presents extreme hazard cft all alts, SR-SS, Mon-Fri.

ORIA MUN ARPT: All lndg area lgts inop.

ELVOIR, DAVISON AAF: Experiments being con- ed in an area within a 1 mile radius of center t long. 77°08'16", lat 38°44'26". Rotary wing acft ld avoid this area and fixed wing acft stay above '. Extreme caution advised to all acft flying in UFN.

T ROYAL, STOKES FLD: Unattended until her notice.

INSVILLE ARPT: Quarry, 7 mi NNW of arpt mittent hvy blasting, dalgt hrs, hazardous to low g acft.

MOND, RICHARD E. BYRD FLYING FLD: y 15-33 avbl only to scheduled DC-7, DC-6, turbo and local based military jet acft with prior ar- ement with twr.

WASHINGTON

llowing is a list of flds that are clsd November– due to winter elements: Bandera Arpt; Easton ; Enumclaw, Ranger Creek Arpt; Laurier, Avery ; Leavenworth, Lake Wenatchee Arpt; Lester ; Oroville, Nighthawk Arpt: Packwood Arpt; omish Arpt; Stehekin Airfld.

llowing is a list of airports that are clsd until er notice (aprxly April or May): Davenport, La- e Mun, Lind, Northport-Lowry Mun and Metaline -Sullivan Lake USFS.

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extending for aprxly 2000' due to construction on fld UFN.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195-300° at 1000' MSL beyond 2 mi.

SEATTLE: HI alt jet route J96-505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

WEST VIRGINIA

CLARKSBURG, BENEDUM ARPT: New rnwy 13–31 under constrn, unlgtd.

ELKINS, RANDOLPH COUNTY ARPT: Rnwy lgts (rnwy 13-31) inop indefinitely.

WISCONSIN

CHETEK MUN ARPT: All lndg area lgtg inop until aprxly Apr 15. Arpt open to ski equipped acft only.

CORNELL ARPT: Open to ski equipped acft only.

LADYSMITH, BUSH FLD: Open to ski equipped acft only.

LAND O LAKES, KINGS LAND O LAKES MUN ARPT: Clsd winter months. Rnwy lgts on req (Phone 547-3777.)

MADISON, TRAUX FLD: HI intensity rnwy lgts on rnwy 18-36 permly inop on Step 5.

MANITOWISH WATERS ARPT: Clsd winters. No fuel until spring.

MANITOWOC MUN ARPT: Rnwy 17–35 being extended to 5000'. Constrn in progress N end rnwy. Men and equipment in N apch area. Completion date expected about mid summer.

WEST SALEM, MAPLE GROVE ARPT: Clsd until April 15, 1965.

WYOMING

KREMMERER MUN ARPT: Clsd UFN due winter fld conditions.

LARAMIE RDO: About Mar 4, H facil will be permly decmsnd.

CHANGES/ADDITIONS TO AIM

4

e list of airborne check points and ground check nts is published in Section III. VOT's are in-ded with the airport information in Section IV A.

December 1964

4-5:

3 Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

: terms VOR, VORTAC, and TACAN are, operaally, general terms covering the VHF and UHF nidirectional bearing type of facilities without re-d to the fact that the power, the frequency pro-ted area, the equipment configuration, and operaal requirements may vary between the facilities different locations.

table below lists the intended operational service ume or volumes of the various categories of VOR's, RTAC'S, and TACAN's. Below 18,000 feet msl, operational service volume of the H class facility been limited to the L class service volume due to al coverage characteristics of VHF and UHF lities at the lower altitudes. T class facilities ride terminal service at locations where it is not cticable to provide L class frequency protection. mal signal coverage and interference free service be expected within the operational service volume ss specific facility restrictions have been imposed. of these facilities for IFR operations outside of operational service volume without additional t inspection is not intended and may result in ependable or inadequate indications in the cock-

of VOR, , or TACAN	Operational Service Volume
minal)	25 nmi up to 12,000′ msl
r altitude)	40 nmi up to 18,000′ msl
h altitude)	40 nmi up to 18,000′ msl 130 nmi from 18,000′ msl 45,000′ msl 100 nmi above 45,000′ msl

December 1964

-5:

e paragraphs 5 and 6 under Distance Measuring ent (DME) and substitute the following:

to the limited number of available frequencies, nment of frequency pairs has been required for certain military noncollocated VOR and TACAN facilities which serve the same area but which may be separated from a few to many miles. Additional frequency assignments have been made for remotely located military TACAN facilities which may be within reception range of a randomly paired ILS localizer. Selection of a DME channel while tuned to a randomly paired VOR or ILS frequency could result in the reception of distance information from a source which is remotely located from the VOR or ILS facility.

6. VOR/DME, VORTAC and ILS/DME facilities are readily identified by synchronized identifications which are transmitted on a time share basis. Identification of noncollocated VOR or ILS and TACAN facilities are not synchronized, resulting in intermixing and apparent distortion during TACAN identification whenever simultaneous aural monitoring of VOR or ILS and TACAN identification is attempted. DME equipment has been installed at only a few ILS locations and any DME presentation while using an ILS frequency which does not have an associated DME would be originating from a randomly paired remote location.

7. Aircraft receiving equipment which provides for automatic DME selection assures reception of azimuth and distance information from a common source whenever designated VOR/DME, VORTAC and ILS/DME navigation facilities are selected. Until further advised, pilots are cautioned to disregard any distance displays from automatically selected DME equipment whenever VOR or ILS facilities, which do not have the DME feature installed, are being used for position determination.

February 1965

PAGE I–24:

Under TRANSCRIBED WEATHER BROADCASTS add:

3. Automatic transcribed broadcasts service is available on class H facilities designated as:

a. **HSAB**—A class H radio beacon required for IFR radio navigation and/or airtraffic control and for automatic transcribed weather broadcast service. This class facility will be depicted on radio facility, Sectional and WAC type charts.

b. **SABH**—A class H radio beacon having limited navigational use in that it is not flight inspected for IFR certification or primarily used for air traffic control. This aid will provide the automatic transcribed weather

least service and will be depicted on Sectional and type charts, only.

Operation of either type facility will be essentially same. Both will have a code identification sent at ency intervals keyed simultaneously with the voice ls. Although, not essential, it may be advantageous teners to equip their receivers with a 1020 cycle rejection filter which, when switched to the "voice" on, will silence the keyed code identification signal.

The AB (automatic transcribed service) component AB's and SABH's will operate continuously except g those periods when the transcription equipment perative. During these periods manual broadcasts, uled (H+45 hourly) and non-scheduled will be

PAGE I–36:

Under Vertigo, delete last sentence, "If the beacon ..... etc".

December 1964

PAGE IV–42—Change as follows:

Second column, second entry under state of Idaho—move MAC'KAY 1 SE to page IV–45 second column 8th entry from bottom and substitute MAC'KAY 1 SE for AMERIC'AN FALLS, AMERIC'AN FALLS 2 NE. The latter moves to page IV–42 second column, second item under state of IDAHO.

January 1965

February 1965

AIRMAN'S INFORMATION MANUAL

NOTICES TO AIRMEN

SECTION III A

EFFECTIVE 0501Z 18 MARCH 1965

To 0501Z 1 APRIL 1965

FEDERAL AVIATION AGENCY

Section III-A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the A. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or re-ed Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

E: Data preceded by a checkmark (✓) are considered permt and will usually be cited only once. Such information ld be noted on charts and records. Temporary information is uously cited until the condition is no longer in effect.

E: Data is arranged in alphabetical order by State (and within State by City or locality).

OR REVISED DATA: New or revised data are indicated by dining the first line of the affected item. The new information t necessarily limited to the underlined portion, which is used to attract attention to the new insert.

ALABAMA

OU LA BATRE, BAY VIEW ARPT: Paved 3000' ig strip 75'S and parallel to turf rnwy. P-line each le of drag strip and wire across strip 75' from E end. S turf rnwy under constr, covered with stumps not be used for acft operns.

NTLEY MUNI ARPT: Clsd UFN.

OOKWOOD RDO: VOR comsnd. Ident: "BWA." : 111.0 mc Class: L-BVOR. Lctd at lat 33°14'22", g 87°14'35". Variation 4° E. Monitoring category 1. trolled by Birmingham FSS.

ERINE, MARTIN FLD: Clsd until spring.

THAN MUN ARPT: Abandoned. All operns moved Napier Fld.

UCKER: Extsv IFR and VFR student trng conted in area bounded by V-115 W, V-241 S, V-70 N l V-241 E. Normal hrs of operns 0600-2400 Mon-Fri m surface to 10,000'.

NDERSON RDO: H facility decomsnd.

IA CRAIG AFB: Extsv jet student trng conducted ing dalgt hrs and occasional ngts Mon-Fri from sure to 6000' MSL. Craig ctl zone saturated dalgt hrs to 0' MSL during student trng. VFR acft should con- Craig twr on 236.6 or 119.5 mc for tfc advisories. ig Twr is avbl for lndg advisories for acft lndg Sel. Clsd excp for ofl bus. clsd to transit aero club acft.

'ALOOSA, VAN DE GRAAFF ARPT: 240' (462' L) lgtd chimney being constrd 3 nmi E (087° T) lat 33°12'49, long. 87°32'45".

ARIZONA

E ARPT: Clsd until aprxly Nov. 1965.

UACHUCA: See Yuma Notice.

BEND: See Yuma Notice.

GRAND CANYON NATIONAL PARK ARPT: Clsd for constr.

MARICOPA: CAUTION—DO NOT MISTAKE FOR LANDING AREA. Space Surveillance Stn at lat 33°06'31", long 112°01'46" aprxly 4 mi N. 1200' W and parallel to hwy. Site is strip 300' x 1800' with paved portion lengthwise thru cntr 100' in width and studded with 6' steel posts. This permanent hazard lctd 22 nmi S Phoenix-Sky Harbor Arpt.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hidensity jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the vcnty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3-21 for unknown duration. Usable length lndg and tkof rnwy 12-30 is 2900'.

TUCSON, RYAN FLD: All rnwys clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

YUMA. U.S. Army conducting SD-2 and SD-1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy

eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000′ MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307

ARKANSAS

✓ ALEXANDER, CLIFF PACKER ARPT: Clsd to the public.

FT. SMITH MUN ARPT: 156′ (769′ MSL) lgtd water twr being constrd 2 nmi NNW (335°T) at latitude 35°21′39″, longitude 94°23′05″.

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BAKER ARPT. Clsd for repairs UFN.

BURBANK, LOCKHEED AIR TERMINAL TWR: ILS lclzr and glide slope rnwy 7 shutdown.

✓ COD POINT SITE 1 LAX–BFL: Feb. 26, bcn site decomsnd.

CORNING MUN ARPT: Clsd

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

✓EL MONTE, LOS ANGELES-EL MONTE ARPT: Clsd to the general public.

EUREKA, KNEELAND ARPT: Caution, rnwy extremely soft, parking area unusable.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″; clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; to 36°34′45″, 121°48′35″; 36°35′45″, 121°49′45″; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

HAWTHORNE ARPT: REIL and txwy lgts will be inop 2300–0700 nightly UFN.

HYAMPON ARPT: Clsd UFN due flood.

KLAMATH, McBETH FLD: Clsd for unknown duration due flood damage.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles Salt Lake City boundary. J11 FL 180–230 incl. from 5 miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: A 90-day test is being conducted by the LAX FSS to evaluate the effectiveness of a new concept in transcribed weather broadcast script. The new concept differs from present procedures in that meteorological and notice to Airmen Data is broadcast as applied to six commonly-traveled routes out of the Los Angeles Metropolitan area. Enroute weather reports follow the weather forecast for each route. Only those elements of enroute weather reports considered to be operationally significant for flight planning purposes are spoken. Dissemination continues to be over the Los Angeles "HOMER"; also available by telephone over Sprint 6–1640, Poplar 2–4111, Davis 3–4626 and via a special "Listening-only" interphone circuit which parallels the present "fastline" circuit serving subscribers at Van Nuys Airport, Lockheed Air Terminal in Burbank, San Fernando Airport, Whiteman Air Park in Pacoima and Rancho Conejo Airport near Thousand Oaks.

MODESTO CITY-COUNTY ARPT: All pilots must call Stockton Apch Ctl prior to conducting IFR flight operations in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

POINT ARGUELLO: Civil acft desiring to transit W-386 call Navy Point Arguello on 122.5 mcs (guard 24 hrs) and listen for reply on 124.4 mcs.

SANTA BARBARA RDO: Width of Naples FM at intercept alt on ILS lclzr crs 3200′ or slightly wider than standard ILS OM. During VOR outages or shutdowns for maintenance, flt checks reveal numerous useless signals being emited by acft rdo shops in Los Angeles Area on Santa Barbara VOR freq 114.9 mc are to be disregarded.

COLORADO

DENVER, LOWRY AFB: Ctld firing (demolition) area in use daily except Sat, Sun and holidays 1430–2330Z within a radius of 2500′ of point lctd 104°41′11″W, 39°30′30″N up to 1000′ above surface.

EAGLE: Ctld firing for use of Camp Hale. Area 5 nmi radius from point lat 39°27′, long 106°15′, max ordinate of firing 15,000′ MSL. Time of use continuous 24 hrs daily. Controlling agency: Commanding General, Fort Carson.

HANOVER RDO: H facility will be decomsnd.

✓ IDALIA, LANGENDOERFER ARPT: Abandoned.

PUEBLO: Controlled Firing (demolition) area for use of the Pueblo Ordnance Depot established within the following described area: bounded on N by lat 38°22′00″ E, long 104°21′22″; S, lat 38°18′00″; W, long 104°25′50″. Hrs of usage: 0900–1600 MST, Mon-Fri. Max ord 5000′ above the surface.

CONNECTICUT

MARBOROUGH, LESNEWSKI FLD: Clsd to a/c until aprxly June 1, 1965.

WATERBURY ARPT: Clsd.

DELAWARE

MIDDLETOWN, SUMMIT AIR PARK: E W rnwy until aprxly April 1965.

DISTRICT OF COLUMBIA

SHINGTON, MT VERNON: Low flying acft requested avoid immediate vcnty Mt. Vernon estate lctd W bank tomac River 10 mi S Washington Natl Arpt.

SHINGTON NATL ARPT: JET POLICY FOR ASHINGTON NATIONAL AIRPORT—Due to ited ground handling facilities at the Washington tional Airport, flight operations of only those turbo- aircraft that meet the following criteria can be ac- modated: A. Except under emergency conditions, ly approved types of turbojet aircraft of short or dium range (1) are engaged in corporate, private arter or rental type operations, and (2) solely in- d to utilize the Airport's General Aviation ground vice facilities. B. Currently approved types of dium and short range turbojet aircraft are as fol- s: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. ort or medium range turbojet aircraft of types not ed above must secure advance authorization from Airport Manager. Requests for such authorization uld be made at least 48 hours in advance of the ned aircraft arrival at the Airport. D. Because limited capabilities, the Airport cannot accomodate rations of turbojet aircraft for proficiency or prac- take-off or landings.

FLORIDA

S TO HAITI, PUERTO RICO AND DOMINICAN PUBLIC SPECIAL NOTICE: Non-commercial acft prohibited from landing in HAITI, unless specific r authorization is obtained. Seven working days normally required to obtain clearance. Pilots plan- g to fly between the mainland and PUERTO RICO uld plan their route to avoid unscheduled emer- cy fuel stops. Pilots planning to fly to the DO- NICAN REPUBLIC should refer to the International ht Information Manual for complete details.

CE: Florida Forest Service requests that all acft ld flying over forest fires in South Florida at low tudes due to the possibility of Forest Service Acft ns directing ground equipment over active fires.

A, CENTRAL BREVARD COUNTY ARPT: Clsd further notice for constr.

ESTVIEW RDO: VHF/DF recomsnd at new FSS on Bob Sikes Arpt. Freqs: 121.5, 122.1, on request 122.5, 125.1, 126.2, 126.7, 126.9, 134.1, 134.75, 9.

IYERS, LEHIGH ACRES WEST ARPT: 695' ' MSL) lgtd TV twr being constrd 6 nmi SE T) at lat 26°35'09", long 81°37'53".

GWOOD, SLADE ARPT: Clsd to public.

ACOLA: Intensive student conventional and jet trng activity cross V22 at 12,000' MSL btn y Saufley (NUN) VOR and Navy Whiting (NSE) 135 radial; and within a radius of 3 nmi Whiting S and Saufley NAAS at and below 2500' MSL. est course or altitude be altered to avoid these s. Radar VFR advisory service avbl on 119.0, 286.0 for acft eastbound or arriving from the E, or on), 281.8 for acft westbound or arriving from the .

Y-FOLEY ARPT: 500' (545' MSL) lgtd rdo twr constrd 3 nmi E (080°T) at lat 30°04'19", long 1'28".

ULA, SPRUCE CREEK ARPT: Clsd April 23, 24 25, 1965

SEBRING AIR TERMINAL: Tmpry FAA ctl twr and flight service will be provided while Sebring races in progress March 25-27 during the following hrs: March 25 from 0800 to 2100 EST. March 26 from 0700 to 1800 EST. March 27 from 0700 to 2400 EST. Tower will transmit on 118.8 mc, 121.5, 121.9 and will receive on 118.8 mc, 121.5, 121.9, 122.5 mc. Portion of race course 50' wide along W edge of N/S runwy and along N edge of E/W runwy marked by yellow cones. Easternmost 150' of N/S runwy and southernmost 150' of E/W runwy parallel to race course available for lndgs and tkoffs, all other runways clsd watch for lgt signals from old military ctl twr Extreme caution advised. Tmpry FSS will be set up in terminal bldg to handle flgt plans and pilot briefings. Acft are requested to call Sebring rdo on 122.1 mc and listen on 122.2 mc for this service.

TAMPA: VFR acft desiring radar ATC service in Tampa, St. Petersburg Area should cte Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft revg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13-31 only rnwy in use. Threshold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1980'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0001 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless otherwise authorized, no person may operate an aircraft in the air corridor between R-2915A, R-2915B and R-2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted therein. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; however, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

WINTER HAVEN, CYPRESS GARDENS ARPT: Clsd to public for unknown duration.

GEORGIA

✓ ADEL COOK COUNTY ARPT: 243' (478' MSL) lgtd microwave twr constrd 2.5 nmi N (360°T) at lat 31°10'20", long 83°26'13".

CAIRO MUN ARPT: Clsd due constrn until aprxly May 1, 1965.

COCHRAN ARPT: Clsd until aprxly May 1965.

✓MACON, SMART ARPT: 220' (523' MSL) lgtd microwave twr constrd 3 nmi WNW (293°T) at lat 32°50'13", long 83°37'17".

ST. MARYS ARPT: Trash dump at ends of rnwys 19 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

SAVANNAH, SAFFOLD FLD: 247.5' (253.5' MSL) and 254' (261' MSL) lgtd steel twrs being increased to 254' (261' MSL) and 279' (286' MSL) 4 nmi NNW (317°T) at lat 32°04'47", long 81°02'54".

SAVANNAH SAFFOLD ARPT: Clsd until further notice.

STATESBORO MUN ARPT: 1000′ S end rnwy 18–36 to intsxn of rnwy 13–31 clsd for unknown duration. Remaining rnwy rough usable length 4200′ both directions.

✓ TIFTON, MYERS ARPT: 293′ (653′ MSL) lgtd microwave twr constrd 3 nmi NW (316°T) at lat 31°27′40″, long 83°31′08″

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.

CAYUSE CREEK USFS ARPT: Skiis only winter months.

COTTONWOOD MUN ARPT: Clsd during winter months.

CRAIGMONT ARPT: Clsd during winter months.

CAMAS COUNTY ARPT: Clsd for unknown duration.

CAREY MUN ARPT: Clsd for unknown duration.

DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.

ELK RIVER ARPT: Clsd aprxly May 1965 due winter months.

HORSE HEAVEN USFS ARPT: Skiis only winter months.

MAGIC RESERVOIR AIR STRIP: Clsd for unknown duration.

MAGEE USFS ARPT: Skiis only winter months.

RICHFIELD, REYNOLDS ARPT: Clsd until May 1965.

SPIRIT LAKE ARPT: Clsd winter months.

VICTOR MUN ARPT (BENNETT FLD): Clsd UFN.

ILLINOIS

CHICAGO, MIDWAY ARPT TWR: Radar advisory to all acft operg VFR. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000′ MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft lndg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.

CHICAGO-O'HARE INTL ARPT: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts. Caution advised.

✓ LAWRENCEVILLE–VINCENNES MUN ARPT: 566′ (1049′ MSL) lgtd TV twr constrd 6 nmi WSW (241°T) at lat 38°43′08″, long 87°43′24″.

PEORIA, GREATER PEORIA ARPT: 5′ unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.

POLO, HAMILTON FLD: Closed until further notice due ice and snow.

STOCKTON ARPT: Clsd UFN.

SULLIVAN COMMUNITY ARPT: Closed winter mont due soft rnwys, mrkd with "X".

INDIANA

ORLEANS ARPT: Clsd to acft over 6000 lbs dur winter months.

SCOTLAND: Controlled explosive demolition is conduc week days 0730–1600, at the U.S. Naval Ammuni Depot, Crane, Ind in a controlled firing area one nm diameter lctd 160°/8.7 nmi from Scotland VORTA from the surface to 2200′ MSL.

IOWA

✓ANITA, DRESSLER ARPT: Clsd to the public.

CHARITON ARPK: Clsd for rnwy paving.

✓INDIANOLA, STONE FLD: Clsd to the public.

✓MONTICELLO MUN ARPT: Abandoned.

✓MOUNT AYR, MOUNT AYRPORT: Clsd to the publ

MT PLEASANT MUN ARPT: Clsd until aprxly Ap 15.

NEWTON MUN ARPT: NE/SW rnwy clsd.

✓ SIOUX CITY MUN ARPT: 203′ (1555′ MSL) lgtd r twr constrd 6 nmi NE (035°T) at lat 42°29′05″, lo 96°18′10″.

WASHINGTON MUN ARPT: Clsd until aprxly June 1965.

KANSAS

LYONS MUN ARPT: During dalgt hrs agricultural a on tkofs are using nonstandard patns due to proxi of congested areas and are proceeding at low alti out of tfc patn area. Constr on all txwys and ra areas. NW/SE and NE/SW rnwys clsd.

SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, ef 30 September 1961, is revised as follows effective i mediately: Add Note: Radar vectoring to final a proach course authorized.

TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Am 16: ILS–13. Amdt 17 and ILS–31. Amdt 7 are amen as follows, effective immediately: C–dn, two eng or l 65 kt or less, 600–1 vice 500–1. Unlighted smoke st 1137′ msl within circling criteria.

KENTUCKY

✓ OWENSBORO RDO: Non-federal Rbn ident: "OW comsnd. Class: MHW. Freq: 275 kc. Lctd 37°39′35″, long 87°10′17″. Facility owned and o ated by Owensboro–Davies County. Name: Ow boro Rbn.

WEST LIBERTY, MORGAN CITY ARPT: Clsd.

LOUISIANA

GRAND ISLE RDO: About March 15, VOR w comsnd. Ident: "GNI." Freq: 109.4. Class: L–B Lctd at lat 29°10′26″, long 90°06′12″. Variation Monitoring category 1. Ctld by New Orleans FSS

HOUMA, HAMMONDS AIR SERVICE SEAPL BASE: 408′ rdo twr mrkd and lgtd lctd 0.2 nmi S

HOUMA MUN ARPT: 200′ (210′ MSL) lgtd tmpr derrick constrd 1 nmi NNW (333°T) at lat 29° long 90°40′30″. Will be removed 7/1/65.

HOUMA MUN ARPT. 268' (272' MSL) lgtd rdo twr constrd 2.5 nmi W (270 T) at lat 29 33'58", long 90 42'33".

AMORTE MUN ARPT: 250' (268' MSL) lgtd flare stack constrd 7 nmi NW (300 T) at lat 29 44'19", long 95 09'39".

NEW ORLEANS-LAKEFRONT ARPT: 218' (223' MSL) lgtd building constrd 6 nmi E (094 T) at lat 30 01'24", long 89 55'.

MAINE

R HARBOR ARPT: Rnwys 7–35, 4–22 plowed 3000 x 75'.

'E HILL ARPT: Clsd winters.

BLOIS FLIGHT STRIP: Clsd winters.

STPORT MUN ARPT: Rnwys not plowed.

'LTON INTL ARPT: Rnwy 5–23 plowed winter nths.

DSON, ROBBINS FLD: Clsd winters.

EC ARPT: Clsd winters.

LINOCKET MUN ARPT: Rnwy 11 29, txwy and mp plowed winter months. Rnwy 16 34 skd opers ay. snow banks across 16–34 at intersection with 11–. Acft using 16 34 and 11 29 not visible to each ler until apchg intersection.

SE RIVER, SKY LODGE ARPT: Closed winters.

TOWN MUN ARPT: Rnwy 15–33 plowed full length d width.

N'TON MUN ARPT: Rnwy 6–24 not plowed winter nths.

MASTON ARPT: Rnwy not plowed during entire ter.

TERPORT, FERNALD ARPT: Rnwys not plowed.

MARYLAND

APOLIS SPECIAL NOTICE: Electromagnetic ra- tion venty parabolic antenna at Greenburry Point 38 58'22", long 76°27'00", about 2.3 nmi ESE, im- diately SE Annapolis NAF. This radiation not ually apparent but definitely dangerous to personnel, t. pwr service, insts. Pilots of helicopters warned inst hovering in venty and should avoid apchg ser than ½ mi.

STERTOWN, GILL ARPT: Clsd to transients until rch 31.

RCHTON, DEEP CREEK ARPK: Clsd until May 15, 5.

EGE PARK ARPT: Open. The abandoned arpt de- ed on the Washington Sectional Chart is Erco Fld.

ON MUN ARPT: Rnwy 14–32 clsd ngt operns, due inop.

TON, LOVETT ARPT INC: Clsd to all acft until xly April 1.

EN HILL ARPT: Clsd winter months.

HALL ARPT: Flight in Restricted Area R–4007 horized only within one mi radius of arpt and in mi wide corridor 242° (M) from the arpt at and w 1200'.

Y POINT ARPT: Flight in Restricted Area R–4007 horized only within one mi radius of arpt and in mi wide corridor 347° (M) from the arpt at and w 1200'.

ENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

SPECIAL NOTICE: Field conditions for all arpts avbl through the nearest Massachusetts State Police Hdqtrs.

SPECIAL NOTICE: VFR wea warning signs installed arpt ramp areas at number of Cape Cod and bordering Island letns. Signs funtion with associated flashg lgt during periods where wea is forecast or actually goes below VFR minimums. Sign and lgt sys operns at Chatham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 hrs daily.

BOSTON ARTCC: Nov 24, extended radar enroute tfc ctl service will apply to acft departing from destined to Concord Mun, Hartness Mun, Laconia Mun Airports while enroute via portions of Blue 63, V–141, V 141E, V 93, V–30, V–151, V–151W, V–1607 and V–1605. Normal clearance limit is arpt of destination. Primary freq for this service is 127.3, or 351.1 mc. Additional freq is 127.0 mc or 397.9 mc. ARSR and BCN comsnd at Saratoga Springs, N.Y. peripheral site.

BOSTON, LOGAN ARPT: All standard instrument apch procedures are amended as follows, efctv immediately: NOTE: no circling west of the airport authorized from centerline extended rnwy 4 left to centerline extended rnwy 15 when ceiling is less than 800'. CAUTION: 505' bldg 1.7 mi W of arpt.

✓ FALL RIVER RDO: Non-federal H facility comsnd. Lctd at lat 41 45', long 71 07'. Class: MHW, Ident: FLR. Freq 395 kc.

OAK BLUFFS ARPT: Clsd winter months.

MICHIGAN

MICHIGAN: The following arpts are clsd for unknown duration due to winter months. Cheboygan, Marx Fld.; Munising, Hanley Fld.; Houghton, Sands Arpt.

ALPENA: Control zone and transition area effective from 0800 1600 hrs, local time daily.

ALPENA, PHELPS COLLINS ARPT: First 1000' rnwy 36 clsd to day and ngt lndg and ngt tkof also last 1000' of rnwy 18 clsd to ngt tkof and lndg UFN.

BOYNE CITY MUN ARPT: NW/SE rnwy clsd UFN.

CADILLAC MUN ARPT: All rnwys except 7–25 clsd to all but ski equipped acft for the winter.

CLIO, WESTPORT ARPT: No snow removal, etc Flint FSS for current info.

DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58'00"N long 83°47'30"W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.

ELMIRA, KANDAHAR ARPT: No snow removal during winter months.

FENTON, AERO ACRES ARPT: No snow removal, etc Flint FSS for current info.

FLINT, BISHOP ARPT: Caution, small herd of deer on the S half of fld.

FRANKFORT CITY-COUNTY ARPT: Rnwy 1–10 clsd for winter due to snow.

FLUSHING, DALTON ARPT: No snow removal during winter months. Ctc Flint Rdo or Unicom for fld conditions.

GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L–BVOR Freq: 109.2

mc. Ident: GLR. Lctd lat 45°00'48", long 84°41'30", Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1)

GAYLORD, OTSEGO CO ARPT: Rnwy 18–36 no snow removal during winter months.

HESSEL ARPT: No snow removal during winter months.

HILLMAN ARPT: Open ski equipped acft only winter months.

HOUGHTON LAKE, ROSCOMMON CO ARPT: Rnwys 18–36, 4–22 clsd to all but ski operations for the winter due to snow.

HOUGHTON LAKE HEIGHTS, HOUGHTON LAKE STATE ARPT: Skiis only during winter months.

INDIAN RIVER, CAMPBELL MUN ARPT: No snow removal during winter months.

LAPEER, DUPONT LAPEER ARPT: Ctc Flint FSS for current info during winter months.

LEWISTON ARPT: Open ski equipped acft only winter months.

MANISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd UFN.

MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000' AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000' AGL.

MENOMINEE RDO: Control zone efctv immediately from 0700–2030 hrs local time daily UFA.

MIO ARPT: Open to ski equipped acft only for the winter months.

✓ MT. PLEASANT RDO: Non-federal VOR comsnd on freq 109.8 mc for VFR use. Ident: MOP. Lctd 43°37', long 84°44'. Class: T–BVOR. Owned by State of Michigan.

MUNISING, HANLEY FLD: Clsd until aprxly May 1965.

OWOSSO CITY ARPT: Ctc Flint FSS for current info during winter months.

SAGINAW MUN ARPT: Clsd to all ngt operns UFN.

SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500–1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)

✓ SELFRIDGE RDO: VOR unusable for civil acft. Following intersections are cancelled: Cascade, Clair Kings Mill Marine City and Pointe.

STAMBAUGH CITY ARPT: Clsd until further notice.

TRAVERSE CITY ARPT: Rnwys 13–31 and 5–23 clsd for the winter.

VANDERBILT, SUNGLENN ARPT: No snow removal during winter months.

WASHINGTON HARBOR, ISLE ROYALE NATIONAL PARK: Jan. 30 until aprxly March 20, a flashing red bcn will be in opern as a navigation aid for small acft engaged in winter operns on this island. Burning of smoke producing material will be in progress on Mt. Feldtman and outer Washington Harbor during late February and early March.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.

BEMIDJI: Control zone 0730 to 2000 local time.

BRAINARD: Control zone efctv 0800 to 1900 local time.

COOK MUN ARPT: Closed winters.

DEER RIVER, BOWSTRING TOWNSHIP ARPT: Clos[illegible] winters.

DEER RIVER MUN ARPT: Closed winters.

ELY MUN ARPT: Clsd to wheeled acft. Not plow[illegible] UFN.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a l[illegible] from Aurora, Minn., to a point 4 mi SE of Bal[illegible] also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

LITTLE FORK MUN ARPT: Clsd to wheeled acft winter months.

MINNEAPOLIS ARTCC: Enroute radar service excep radar weather advisory service is available in the Minneapolis advisory area E of a line from a point on the United States-Canadian boundary 126 DME NW of Sault Ste. Marie, Mich. VOR thence SW to Houghton, Mich VOR thence SW to 46°39', 89°45' thence via the Minneapolis area positive ctl boundary to the common Minneapolis-Chicago boundary at 45°34', 89°18'. Radar jet advisory service excep radar weather advisory service is available also J90 and J16 btn 25 nmi W of Sioux Falls, S. Dak and 33 nmi SE of Dupree, S. Dak; along J32 btn 70 nmi NE of Aberdeen, S. Dak and 32 nmi E of Dupree, S. Dak.; and along J70 btn 50 nmi E of Aberdeen, S. Dak; and 80 nmi NW of Aberdeen, S. Dak. Due to eqpmt characteristics, radar weather advisory service cannot be provided.

ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1-19 [illegible] until aprxly May 1, 1965.

WARREN MUN ARPT: Open ski acft only.

WORTHINGTON: Control zone efctv 0700 to 1930 [illegible] time.

MISSISSIPPI

CAMP SHELBY: March 27, 28–April 23, 24, 25 and [illegible] R4401 will be in use. Hrs of opern: 1400Z–[illegible] Altitude: Surface to 3500'.

McCOMB, PIKE COUNTY ARPT: Rnwy 7–25 clsd [illegible] unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not [illegible] off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V[illegible] vcnty Grandview, Richards-Gebaur Arpt., due concentration of tfc alts. Where possible, suggest all [illegible] operate via V–13E btn Kansas City and Butler Arpt

✓ COLUMBIA MUN ARPT: 300' (1065' MSL) [illegible] concrete chimney constrd 2.5 nmi E (090°T) at 38°57'54", long 92°19'03".

FT. LEONARD WOOD—FORNEY AAF: Radar Fac No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follows: PAR and ASR: C–dn minimums 500–1, 600–1½, 6[illegible] 1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd to civil acft except on business and on flgt plan. Twy rdo and prior clearance from twr rqrd before entry into R–4501. Enter R–4501 on SE heading 140° from Waynesville, Mo.; SSW heading 210° fr Vichy, Mo. (VOR); WNW heading of 290° fr Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2[illegible] clsd. Txwy from S end of mil apron to rnwy 1[illegible] usable for takeoff and lndg in emgcy or on req.

ANSAS CITY MUN ARPT: 350' (1104' MSL) lgtd ...ney being constrd 2.5 nmi NW (314° T) at lat ...05", long 94°38'12"
T. JOSEPH, PITTS ARPT: Abandoned.

MONTANA

...owing is a list of fld clsd winter months: Condon ...FS, Conner, Shook Mountain Arpt, Helmville, Wine ...ss Arpt, Libby Arpt, Meadow Creek USFS Arpt, ...ado, Clearwater Arpt, Ovando, Heart Bar Airstrip, ...e bridge, Quarter Circle M.C. Arpt, Ronan Arpt, ...ley Lake Arpt, St. Ignatius Arpt, Thompson Falls ...pt, Troy USFS Arpt, Whitefish Arpt.
AT FALLS ARTCC (NOTIP): En route radar ...vice radar weather advisory service available ...ughout the enlarged Great Falls ARTCC NOTIP ...a Due to equipment characteristics radar weather ...isory service cannot be provided in this area nor ...107 from the centers eastern boundary to the ...adian border where civil turbojet radar advisory ...ice is being provided by Great Falls ARTCC/ TIP. VFR service in the Kalispell, Montana ...a will continue to be available through use of the ...TCC freq 120.4 mc. VFR flights in the Kalispell ...a call 'Great Falls Center—VFR Service'. Further ...rmation is contained in a letter to Airmen that has ...n distributed in the area.
...SPELL, FLATHEAD CO ARPT: Rnwy 11-29 and ...5 clsd due snow UFN. Rnwy 1-19 remains open.

NEBRASKA

...G SPRINGS, ARMSTRONG BROTHERS ARPT: ...(3600' MSL) lgtd rdo twr constrd 2.5 nmi ...261° T) at lat 41°05'-28", long 102°10'11".
...INGS MUN ARPT: Constrn in progress.
...E MUN ARPT: Clsd due rnwy constrn.
...HA RDO: Voice comms with Omaha, Nebr FSS un...ble below 3600' on V-6 8S btn 36 and 55 nmi E of ...RTAC exep tsmtg 116.3 mc.
...BNER, SCRIBNER STATE ARPT: NE-SW rnwy ...rly clsd.

NEVADA

...IAL NOTICE: Contact Lovelock Area Radio for ...rmation concerning release time of Restricted Area ...803. At other than release times flight is restricted ...000' MSL and below along airways in N portion ... at 18,000' MSL and below S of airways in R-4803. ...graphical coordinates of R-4803 are from 3 nmi ...ius circle centered at lat 39°20', long 118°52' and ...hin 3 nmi W and 2 nmi E of a line extending 349.5° ...rom the circles center 15 nmi NNW.
...IAL NOTICE: Demolition of ordnance being con...ted daily UFN Mon-Fri 1000-1500 with danger to ... from surface to 10,000' MSL within a one and one ... mi radius of coordinates 38°14'30", long 118°37'-... aprxly 20 mi S of Naval Ammunition Depot at ...thorne.
...VEGAS: Hi-density jet tfc: Pilots on other than ... clearance should either avoid or use extreme ...ion when traversing the following areas within ...h Nellis AFB hi-density jet tfc is operg. Hours ...peration: 0600-1800 local time, Monday thru Satur... continuous daily at 9000' MSL and below within ... mi radius of Nellis AFB. Surface to 23,000' MSL ...in fig boundaries: 36°42', 115°18'; 36°42', 114°32'; 36°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°-27'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°-15'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°-45'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°-42'; 36°35', 115°42'; 36°35', 115°37'45"; 36°26', 115°-23'25"; 36°26', 115°18'; to point of beginning. Btn 5500' MSL and 23,000' MSL within the fig boundaries: 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 115°42'; 36°35', 115°37'45"; 36°26', 115°23'25"; 36°23'-25", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; west to closest 5000' elev line at 36°13', 115°22'; SW along 5000' elevation line to 36°08'50", 115°30'; to point of beginning. Surface to 23,000' MSL within fig boundaries: 36°42', 115°18'; 36°26', 115°23'25"; 36°23'25", 115°23'25", SE along US 95 to 36°14'20", 115°14'; 36°13', 115°07'30"; clockwise along NW edge of a 5-mile circle around Nellis AFB to 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°34'30"; 114°41'-30"; 36°42', 114°32'; to point of beginning. Btn 8000' MSL and 9000' MSL within fig boundaries: 36°31', 114°56'40"; 36°42', 114°12'; 36°32', 114°12'; 36°23'-30", 114°48'20"; to point of beginning. Btn 10,000' MSL and 23,000' MSL within fig boundaries: 36°14'-20", 115°14'; west to closest 5000' elevation line at 36°13', 115°22', SW along the 5000' elevation line to 36°08'50", 115°30'; 36°10', 115°10'; to point of beginning. Surface to 9000' MSL within fig boundaries: 36°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30", 114°48'20"; 36°12', 114°58'; clockwise along southern edge of Nellis AFB Control Zone to point of beginning. Suggested arrival and departure route NE of Las Vegas: remain E of the 025 radial of LAS VORTAC and outer limits of Nellis AFB ctl zone at or below 7000' MSL. Frequent violations reported of Restricted Area R-4808 NW of Las Vegas. This area extremely hazardous to intruding aircraft. All civil acft warned to keep clear of this area. Caution in ctl zone area, tow-target patn between Nellis AFB and a point 8.7 nmi N of Nellis AFB descending from 10,000'.
LAS VEGAS, McCARRAN FLD: VASI inop until aprxly May 1, 1965.
MINDEN, DOUGLAS COUNTY ARPT: Caution extensive glider operns dalgt hrs. Caution student aerobatic training dalgt hrs in vcnty and E of rnwy 16-34 from 6500' to 9000' MSL.

NEW HAMPSHIRE

GILMANTON IRON WORKS, BESSE FLD: Clsd winters.
NORTH STRADFORD ARPT: Clsd winters.

NEW JERSEY

ATLANTIC CITY NAFEC/ATLANTIC CITY (POMONA) ARPT TWR: Experimental DME rnwy 13 ILS operg channel 30, freq 961 mc ident: XAB comments required.
BASKING RIDGE, SOMERSET HILLS ARPT: Clsd to transient acft until spring 1965.
DOVER: Picatinny Arsenal: ctld firing area 3 mi wide extending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000' MSL. Prior entering area ctc Teterboro Rdo.
MILLVILLE MUN ARPT: Operns restricted to hard surface areas only.

NEWARK AIRPORT: Proc. No. ILS–22, Amdt. 9, effec. 10 Oct 64 and ADF Proc. No. 2, Amdt. 4, effec. 10 Oct. 64. During the period of the Yardley, Pa. VORTAC shutdown, the missed approach procedures are revised as follows: ILS–22: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished, climb to *1500′ straight ahead on SW crs. of Newark ILS to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000′, hold NE Chatham RBn, one-minute right turns, inbound crs. 241°. *2000′ for jet aircraft. ADF No. 2: If visual contact not established upon descent to authorized landing minimums, or if landing not accomplished within 5.8 miles after passing LOM, climb to *1500′ straight ahead on crs. 217 degrees to the (EW) LOM, then turn right and proceed direct to the Chatham RBn at 2000′. Hold NE Chatham RBn, one-minute right turns, inbound crs. 241 degrees. *2000′ for jet aircraft.

OCEAN CITY ARPT: Clsd until spring, 1965.

TRENTON, MERCER COUNTY AIRPORT: Efctv with and during the period of the Yardley, Pa. VORTAC shutdown, the flwg tmpry ADF procedure authorized: Arpt Elev: 213′. Facil class: MHW. Ident: TTN. Facil lctd on arpt—lat 40°16′39″N, long. 74°49′11″W. Freq: 369 kcs. Transitions: From PNE VOR to TTN RBn, Direct, 2000′. From RBV to TTN RBn, Direct, 2000′. Radar transitions authorized in accordance with approved radar patterns. Procedure turn S side of crs. 23°. Outbnd, 050°. Isbnd, 2000′ within 10 mi of TTN RBn. Minimum alt over facil on final apch crs, 900′. Facil on arpt. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.0 miles after passing TTN RBn, climb on crs 050° to 2000′ within 10 mi, then make left turn and proceed direct to TTN RBn. Hold SW, one minute right turns, inbound crs 050°. Ceiling and visibility minimums: T-dn, two eng. or less, 300–1; over two engines, 200-½. C-dn, two eng. or less, 700–1; over two engines, 700–1½. A-dn, all aircraft; 800–2. CAUTION; Tower 433′ MSL 2.4 nmi SW or arpt.

NEW MEXICO

ALAMOGORDO MUN ARPT: Pole 1200′ from apch end rnwy 16.

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR wea conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57′30″, long 106°33′45″. Soil clods may be thrown to a radius of 1000′.

HOBBS MUN ARPT: Rnwy 8–26 clsd.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has an obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

ROSWELL MUN ARPT: Constrn on rnwy 17–35 extension until aprxly Jun 1. Men and equipment work NE quad arpt off apch end rnwys 17 and 21 to bndry. First 850′ runway 17 clsd. Usable length in directions 4113′. Open to lgt acft only.

NEW YORK

ANTHONYS NOSE: Awy bcn site #4 will be permanently decmnsd.

✓DUNKIRK RDO: MHW permly decmsnd.

KEESEVILLE ARPT: Clsd winters excp to ski acft.

MORRISONVILLE, NORTHWAY ARPT: Rnwy plowed during winter.

NEW YORK ARTCC. About Apr 4, freq 137.65 mcs will be decmsnd.

NEW YORK CITY: 1520′ rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts opers rotating basis dusk to midngt. From midngt to dawn break bcn in fixed position with light beamed direct S.

NEW YORK, BROOKLYN SEAPLANE BASE: Clsd until aprxly May 1965.

NEW YORK JOHN F. KENNEDY INTL TOWER: August 1, 1964, Kennedy Tower began an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better service by permitting more expeditious handling relieving frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally participating flights will normally remain on a ramp control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call should be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure data currently in use shall be issued at this time. The altimeter setting will be issued to all itinerant departures and to scheduled air carriers when requested.

2. Additional information shall also be issued at time of clearance delivery. This information shall consist of only that which will concern the departing aircraft. An example of this would be an advisory that departure delays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engines.

3. After clearance is received, aircraft shall go to normal frequency use, i.e., contacting Ground Control on 121.9 mcs., when ready to taxi. Pilots need not inform Ground Control of receipt of clearance. Heretofore, aircraft will become part of the departure sequence only after informing Ground Control that they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be directed to Ground Control and issued taxi clearance and then changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional delay because of non participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

EW YORK LA GUARDIA ARPT: Until Apr 25, 1965, arpt will be clsd to all acft operns from 2330 to 0700 EST Monday thru Saturday due to constrn.

ORTH TONAWANDA, COUNTY LINE ARPT Clsd to transient acft until May 15, 1965.

RCHARD PARK: Clsd until spring.

OMULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when weather permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350' radius centered at lat 42°46'50"N and long 76°53'08"W. Demolition activities in the area will go no higher than 2000' MSL and only when ceiling of 5000' or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

SCHUYLERVILLE, GARNSEY'S LAND AND SEAPLANE BASE: Clsd winters.

ORMVILLE ARPT: Clsd UFN due to mud and slush.

CONDEROGA ARPT: Clsd for duration winter season.

ARWICK MUN ARPT: Clsd until aprxly Jun 15 due to constrn. Locally based acft will be using limited portions of afld durg constrn.

ATERTOWN MUN ARPT: Rnwy 1-19 clsd to all operns UFN. Will not be maintained during winter months.

NORTH CAROLINA

HARLOTTE, DOUGLAS MUN ARPT: Rnwy 18-36 lsd until aprxly May 1 due constrn.

IZABETH CITY MUN ARPT: Due to heavy VFR GA tfc lndg rnwy 10 at the U.S. Coast Guard Station, t is recommended that all tfc lndg at the Elizabeth ity Mun arpt contact Elizabeth City Coast Guard twr n 126.2 mc for tfc information. Acft without radio nter 500' pattern from the west.

AYETTEVILLE, POPE AFB: Extensive operns to 000' MSL 1200-2200Z Mon thru Fri. Pilots of all cft are advised that in an area from Lillington, N.C., orth along arwy V3E 6 NM to Chalybeate, N.C., counterclockwise west 12 NM to Broadway, N.C., thence W 38 NM to Marston, N.C., thence E 26 NM to Rocksh, N.C., thence NE 27 NM back to Lillington; inensive training will be conducted W of V3E using eavy four engine transport and prop jet (C-124 and -130) acft, consisting of single, formation, and multile formation flights. These acft oper 2,000' and below nder VFR conditions, conducting low level (300' AGL o 2,000' MSL) runs in the maneuvering area described bove, for troop and cargo drops into R-5311. Similar perations are conducted in the vicinity of Mackall AF with drops at Mackall AAF.

'KSONVILLE ARPT: 220' (239' MSL) lgtd TV twr onstrd 4 nmi WNW (297°T) at lat 34°48'42", long 7°26'48".

NORTH DAKOTA

LANGDON MUN ARPT: Rnwy lgts inop UFN. Open for ski acft only.

MOHALL ARPT: Lgtg facils inop until spring.

PEMBINA MUN ARPT: E W rnwy clsd and constrn on rnwy 14-32 until aprxly Jul 15, 1965.

OHIO

CINCINNATI: Moored mrkd balloon will be flown day or ngt up to an alt 1500' MSL. Site of operns 7½ mi NE Greater Cincinnati Arpt and 6½ mi W Lunken Arpt. Balloon will be tethered aprxly ½ mi W of Cincinnati Union Trml Bldg.

LAKE MILTON, KOASIS RESORT ARPT: Clsd until further notice.

RAVENNA ARSENAL (APCO): Ctld firing for demolition purposes, when wea permits, during regular working hrs, Mon-Fri within the following area: bounded on S by lat 41°11'30", on N by lat 41°12'20"; E long 81°04'22"; W long 81°06'14". Demolition activities in this area will go no higher than 5000' MSL and only when ceiling of 10,000' or better and vsby 10 mi or more. Notams regarding activities conducted will be filed with FSS Akron Mun Arpt (telephone STadium 4-1246).

TOLEDO MUN ARPT: Clsd Suns to all itinerant acft btn 1400-2300 due to drag races all rnwys UFN.

OKLAHOMA

ENID: Ctl zone efctv 0700-1800 lcl time Mon thru Thurs, 0700-2200 lcl time Fri; 0800-1600 lcl time Sat and 1200-1800 lcl time Sun. Ctl zone not designated on holidays.

ENID: Mon-Fri during dalgt hrs, in addition to intsv student jet operations being conducted within the areas designated on charts, intsv VFR student jet tfc is conducted from gnd to 10,000' MSL within 5 nmi radius of Vance AFB and Kegelman Auxiliary (lctd 23 nmi NW of Vance AFB). These areas should be avoided. Recommended acft arriving and departing Woodring Arpt in VFR condition utilize the following routes. From the west, cross directly over the town of Lahoma at 3500' MSL and maintain 3500' MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500' MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500' MSL. To and from the S maintain 2300' MSL E of an extended N/S line to a point abeam the town of Bison. To and from the N and E maintain 4000' MSL or below within 20 mi of Woodring Arpt. Low level jet navigation missions now being performed at 1000' to 1500' AGL at 300 knots along the following routes: Vance AFB: 8 nmi N of Fairview; Ft Supply; Darronzett; Briscoe; Strong City; Bridgeport; Enid. Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid. Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200-2400 Mon-Fri on 121.3 or rcv on 122.5 mc.

✓ HONOBIA, CHRIST'S 40 ACRES ARPT: Rgt hand tfc pattern rnwy 26.

✓ NOWATA MUN ARPT: 279' (1074' MSL) lgtd rdo twr constrd 5.5 nmi S (179°T) at lat 36°36'40", long 95°06'30".

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: New N/S rnwy under constrn 1 mi E of existing N/S rnwy. Clsd to all operns.

STILLWATER RDO. About May 15, VOR will be comsnd. Ident: "SWO". Freq: 108.4 mc. Class: T-BVOR. Lctd at lat 36°13'15", long 97°04'42". Variation 9° E. Monitoring category 1. Controlled by Oklahoma City FSS.

STILLWATER, SEARCY FLD: Intermittent constrn in progress all rnwys until aprxly Aug 31, 1965.

TIPON MUN ARPT: N/S rnwy clsd until July 1, 1965 reconstrn turf rnwy.

YUKON, CIMARRON FLD: Use turf rnwy 17-35 only.

OREGON

The following arpts are clsd for an unknown duration, due to winter: Beaver Marsh; Stearns; Crescent Lake Flight Strip; Idanaha, Strantiam; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000' in area bounded by 46°12'N, 124°10' W thence 46°12'N, 123°59'20"W thence along a line one half mi E of shoreline to 46°02'N, 123°55'30"W thence 46°02'N, 124°10'W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.

BURNS MUN ARPT: Rnwy lgts inop until further notice.

BROOKINGS, CRISSEY STATE LINE AIRSTRIP: Arpt clsd for unknown duration due damaged rnwy.

CAVE JUNCTION, SPORTSMENS RANCH ARPT: Clsd until further notice.

NORTH BEND ARPT: About 17 nmi N a moored aluminum colored balloon 92' long, approximately 40' diameter being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

UMPQUA RIVER, SCOTTSBURG TO REEDSPORT: River canyon crossed by 4 electric power lines. Twrs on both banks mrkd by red lgts. Easternmost crossing also mrkd with 20" orange aluminum balls spot lgtd from both sides of the river.

PENNSYLVANIA

The following awry lgt hcns will be decmsnd on or about April 29, 1965: Bald Eagle Mountain, Site Number 52 (C-NY); Columbia Crossroads, Site Number 18 (B-BU); Hecla Cap, Site Number 53 (C-NY); Laurelton, Site Number 55 (C-NY); Ring Mountain, Site Number 60 (C-NY); Shunk, Site Number 16 B-BU).

COUDERSPORT, POTATO CITY ARPT: Clsd winter months.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1966 due to banner towing.

GETTYSBURG, ADAMS COUNTY ARPT: Arpt will be clsd intermittently until Apr 1 due to soft fld conditions.

GREENVILLE MUN ARPT: Clsd to wheeled acft

HANOVER, DEVENE RARPT: Arpt will be clsd until April 1, 1965 due to soft conditions and snow.

NEW ALEXANDRIA ARPT: Clsd until aprxly May 1, 1965.

PHILADELPHIA INTL ARPT: Excavation 1 to 3 ft deep, 100' long and 150' wide aprxly 30' from apch end rnwy 27. Ant structure aprxly 5' hi, 45' long, 217' from apch end rnwy 27 UFN.

PUNXSUTAWNEY MUN ARPT: Arpt clsd until futher notice due to constrn.

WILKES-BARRE "AVP" VORTAC SHUTDOWN

About Apr 1, VORTAC will be shut down until aprxly Apr 12, 1965 for freq channel change to 111.6 mc/53. For substitute route structure during shutdown, use flwg:

		Low Altitude		
Airways	Existing Airways	Substitute Routes	MEA	MAA
V30.....	SAX VOR to ELM VOR	None		
V116, 300	SAX VOR to SFK VOR	None		
V58, 100	POU VOR to TOH VOR or IPT VOR	Via V-146 to intercept TOH VOR 048 rad to TOH, thence via V-188 IPT VOR	4,500	17,500
V153...	STW VOR to Harmony Int	None		
V-29...	ABE VOR to HCM VOR	None		
V128...	SFK VOR to HUO VOR	None		

Existing Reporting Points	Temporary Reporting Points	MRA
Pocono.....	ABE VOR 008 rad and TOH VOR 141 rad or TVE VOR 321 rad	3,500
Montrose.....	BGM VOR 155 rad and DNY VOR 246 rad or IPT VOR 070 rad	4,500
Scranton.....	None	
Lopez.....	None	
Thompson.....	None	
Rowlands.....	HUO VOR 314 rad and STW VOR 008 RAD	4,000

WILKES-BARRE, WILKES-BARRE-SCRANTON AIRPORT: During the period of the Wilkes-Barre VOR shutdown, the following missed apchs will be in effect: Proc. ILS-4, Amdt. 16, effec. 18 Apr. 1964 If visual ctc not established upon descent to authorized lndg minimums or if lndg not accomplished within 3.9 mi after passing Wilkes-Barre LOM or 8.5 mi after passing Crystal Lake RBn, climb to 3500' on crs 043° from the Wilkes-Barre LOM, turn left and proceed direct to Crystal Lake RBn, maintain 3500', hold SW one-minute left turns, inbnd crs 043°. ADF Proc. No 1, Amdt. 5, effec. 18 Apr. 1964 If visual ctc not established upon descent to authorized lndg minimums or if lndg not accomplished within 3.9 miles after passing Wilkes-Barre LOM, climb to 3500' on crs 043° from the Wilkes-Barre LOM, turn left and proceed direct to Wilkes-Barre LOM, maintain 3500', hold SW, one-minute left turns, inbnd crs 043°. Radar Proc. No 1, Amdt. 1, effec. 25 Aug. 1962: If visual ctc not established upon descent to authorized lndg minimums or if lndg not accomplished, make an immediate rt climbing turn (Rnwy. 22) or left climbing turn (Rnwy. 10) so as to intercept a crs of 043° from the LOM, climb to 3500' on crs 043°, then make left turn, proceed direct to Wilkes-Barre LOM, maintain 3500', hold SW, one-minute left turns, inbnd crs 043°.

YARDLEY RDO: VORTAC freq/channel will be changed to 115.7 mc/104. This corrects Section III, page 35 of Airman's Information Manual, dated 4 March 1965.

SOUTH CAROLINA

IERAW MUN ARPT: Closed.
LUMBIA ARPT: First 1000' rnwy 10 clsd during dalgt hrs due constrn
LUMBIA, OWENS FLD: Clsd to all ngt transient operation.
KE CITY, BROWN ARPT: Rnwy 1-19 clsd until aprxly Apr 1 for resurfacing and extension on N end.

SOUTH DAKOTA

TELLINE ARPT: Clsd during winter months.
BRIDGE RDO: State owned and operd VOR operg 0700-1900, VFR use only. Class: L VOR. Freq: 108.6, receivers 122.1. Ident: MBG. Lctd lat 45 33'07", long 100 21'56".

TENNESSEE

RFREESBORO MUN ARPT: Glider towing and soaring activity conducted dalgt hrs at and in vcnty arpt.
SHVILLE, CUMBERLAND FLD: Hvy equipment crossing S end rnwy dalgt hrs Mon-Sat noon.
SAVANNAH MUN ARPT: 500' (920' MSL) lgtd TV twr constrd 4 nmi N (360°T) at lat 35 13'58", long 88 13'43".

TEXAS

ARILLO: Controlled Firing Area lctd 10 mi NE of nd of NE/SW rnwy of Amarillo AFB Mun: Lat 35 -00", long 101 37'04" E to 35 21'12", 101 32'26", to 35 17'56", 101 32'26" W to 35 17'56", 101 37'04", to point of beginning. Time of Use: 24 hrs per day. ititudes: up to 3552'.
BEAUMONT MUN ARPT: 220' (249' MSL) lgtd rdo twr constrd 5 nmi E (090°T) at lat 30 04'00", long 94 07'30".
SPRING: Due intsv jet tfc at Webb operg Mon-Fri uring dalgt hrs it is suggested all acft operg VFR main at or above 9000' MSL when traversing area ompassed by 15 nmi arc of BGS VOR, excluding y overlap of V-66, including area W along V-165 point 20 nmi SW of BGS VOR, and an extsn E to clude area bounded N by S bndry of Trng Area ebb AFB/Reese Three, bounded S by N bndry of V- to N-S line drawn through town of Loraine, Tex. ncentrated jet trng within 10 nmi radius of Colorado ty Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR dent jet tfc crossing airways within radius of 60 ni BGS VOR utilizing appropriate VFR hemispher- al crossing for tfc advisories.
SPRING HAMILTON FLD: Caution, all alt 3,600' SL and above intensive jet tfc. T-37 tfc pattern alt Webb AFB 3,600' MSL.
SPRING HOWARD COUNTY ARPT. Caution, all 4,100' MSL and above, intensive jet tfc. T-37 tfc ttern alt at Webb AFB 3,600' MSL.
WNSVILLE, RIO GRANDE VALLEY INTL ARPT: wy 13R-31L clsd except that lgt acft may be ared to land on rnwy 13R.
AR SPRING ARPT: Civil acft requiring use of this when military acft are in the tfc patn, should fly a tangular patn with turns in the opposite direction m the military patn and rock wings on downwind. tn should be flown at 1200' MSL until military tfc clear. Use rnwys only for lndgs. Rnwy 13-31 clsd n.

CORPUS CHRISTI (NAVY CORPUS) "NGP" VOR SHUTDOWN

About Apr 1, VOR will be shut down until aprxly Apr 8, 1965 for freq change to 109.2 mc. For substitute route structure during shutdown, use flwg:

Low Altitude

Existing Reporting Points	Temporary Reporting Points	MRA
Woodsboro Int	CRP VOR 030 rad and NIR VOR 118 rad	
Copano Int ...	CRP VOR 045 rad and NIR VOR 123 rad	1,500
Klein Int	CRP VOR 105 rad and NIR VOR 138 rad	1,500
Taft Int	CRP VOR 030 rad and NIR VOR 140 rad	1,500

DALLAS-HIGHLAND PARK ARPT: 110' of N end rnwy 17 will be removed due highway constrn. Usable portion will be marked by threshold line.
DALLAS, LOVE FLD: Two bldgs being erected 5 nmi SSE (144°T) at lat 32°47'00", long 96 47'50". Bldg A max tmpry hgt 661' (1115' MSL). Completed bldg will be 595.5'. (1039' MSL). Bldg B will reach max tmpry hgt 710' (1140' MSL). Completed bldg will be 666.5' (1049' MSL).
EDINBURGH MUN ARPT: Rnwys rough. Use Caution.
✓ ELECTRA ARPT: 249' (1473' MSL) lgtd rdo twr constrd 1.5nmi SE (131°T) at lat 34°02'10", long 98 57'40".
HONDO: Randolph AFB jet T-38 and T-33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 600' above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 3000' MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress. Non-scheduled dropping of personnel and equipment conducted from alt of 700' to 1000' above the surface on W side arpt Tues, Wed and Fri 1900-2300Z and on Sat and Sun 1500-2100Z.
✓ HOUSTON, H&H ARPT: 454' (504' MSL) lgtd rdo twr constrd 5nmi SSE (157°T) at lat 29°47'32", long 95°17'10".
HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft operns for unknown duration.
HOUSTON INTL ARPT: Inbnd flts etc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° etc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on headings 038-188° etc HOU apch ctl on 118.1 or 307.1.
JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN, HOOD AAF: A VFR Practice Instrument Apch Procedure has been published in a loose leaf format for use by USAF Training Command Pilots. Civil requests for this chart should be submitted to the Director, Coast and Geodetic Survey, Attn: Distribution Division, 14th and Constitution Avenue, Washington, D.C. 20230.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1. Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controlled airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

KILLEEN MUN ARPT: Clsd for rebuilding until aprxly May 15, 1965. Tmpry 1600' sod strip avbl for use during dalgt hrs when dry.

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000' MSL in this area. It this is not feasible, ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; rcv on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

LUBBOCK MUN ARPT: N 400' rnwy 17L–35R clsd during constrn new E/W rnwy Usable lndg length both directions 3000'. Rnwy 12–30 clsd indefinitely.

MIDLAND AIR TRML: Webb AFB T–38 acft will be making practice ILS apchs to transition from Webb 1 Intensive student jet trng area to the Midland ILS, acft will repart Webb 1 Intensive Student Jet Trng area northbound at 12,000' MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42'00", long 98°33'50". Altitude: surface to 3000' MSL (1500' AGL). Time and use: 0830 to 1200 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000' MSL. Hvy conventional and jet instrument acrobatic and transition trng in SE quadrant btn V198 and V163 and V163W 60 nmi radius of Randolph Mon-Fri. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Aux Arpt. Hvy IFR/VFR penetrations and apcrs will be made from the La Vernia VOR to Randolph AFB. Should necessity dicate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

TEMPLE, DRAUGHON-MILLER ARPT: Runway 11–29 clsd until further notice.

TYLER, POUNDS FLD: ILS–13, Amdt. 5, ILS–31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

UTAH

BRYCE CANYON ARPT: Rnwy 12–30 clsd UFN acct snow.

BRYCE CANYON, KANAB MUN ARPT: Rnwy lgts inoperative. Rotating beacon changed to white.

DELTA MUN ARPT: Clsd to all ngt operns 1800-0[illegible] MST UFN.

DUCHESNE MU NARPT: No snow removal eqpmt or svc, during winter months.

FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air/ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N. 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

BARRE-MONTPELIER ARPT: Rnwy 5–23 clsd until aprxly Apr 15, 1965.

BRISTOL, MUN ARPT: Open winters. N/S rnwy will be plowed.

NEWPORT MUN ARPT: Rnwy 5–23 clsd until about May 1, 1965 due snow.

RUTLAND MUN ARPT: Rnwy 13–31 clsd winters. Rnwy 1–19 has low spots and catch basins 10' in from sides until aprxly Apr 15, 1965.

VIRGINIA

DAHLGREN: Restricted Area R–6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR–SS, Mon-Fri.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.

FRONT ROYAL, STOKES FLD: Unattended until further notice.

MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.

RICHMOND, RICHARD E. BYRD FLYING FLD Rnwy 15–33 avbl only to scheduled DC–7, DC–6, turbo jet and local based military jet acft with prior arrangement with twr.

WASHINGTON

The following is a list of flds that are clsd November 1 May due to winter elements: Bandera Arpt; Easton Arpt; Enumclaw, Ranger Creek Arpt; Laurier, Arpt; Leavenworth, Lake Wenatchee Arpt; Loma Arpt; Oroville, Nighthawk Arpt; Packwood Arpt; Skykomish Arpt; Stehekin Airfld.

The following is a list of airports that are clsd until further notice (aprxly April or May): Davenport, La Crosse Mun, Lind, Northport-Lowry Mun and Metaline Falls-Sullivan Lake USFS.

VERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extending for aprxly 2000' due to construction on fld UFN.
ENTON MUN ARPT TWR: Lgt gun signals not visible 135–300° at 1000' MSL beyond 2 mi.
ATTLE: HI alt jet route J96–505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.
ANCOUVER, EVERGREEN FLD: Until aprxly May 4, constrn in progress dalgt hrs—rnwy surfacing on rgt side turf rnwy for first 1000' E of apch end rnwy and will be mrkd when work in progress.

WEST VIRGINIA

ARKSBURG, BENEDUM ARPT: New rnwy 13-31 under constrn, unlgtd.
KINS, RANDOLPH COUNTY ARPT: Rnwy lgts (rnwy 13–31) inop indefinitely.

WISCONSIN

AMP DOUGLAS: Control zone and control area extension 0745–1630 daily.
ETEK MUN ARPT: All ldg area lgtg inop until aprxly Apr 15. Arpt open to skl equipped acft only.
RNELL ARPT: Open to skl equipped acft only.
AND O LAKES, KINGS LAND O LAKES MUN ARPT: Clsd winter months. Rnwy lgts on req (Phone 547-3777.)
ADISON, TRAUX FLD: HI intensity rnwy lgts on rnwy 18–36 permly inop on Step 5.
ANITOWISH WATERS ARPT: Clsd winters. No fuel until spring.
ANITOWOC MUN ARPT: Rnwy 17–35 being extended to 5000'. Constrn in progress N end rnwy. Men and equipment in N apch area. Completion date expected about mid summer.
EBOYGAN COUNTY MEML ARPT: Rbn freq 254 kc. Ident: SEM, no voice, operd by County; lctd on arpt.
EST SALEM, MAPLE GROVE ARPT: Clsd until April 15, 1965.

WYOMING

KREMMERER MUN ARPT: Clsd UFN due winter fld conditions.
LANDER, HUNT FLD: Bcn inop indefinitely.
LARAMIE RBC: MIIW permly decmsnd.

MEDICINE BOW "MBW" VOR SHUTDOWN

About Apr 12, VOR will be shut down until aprxly Apr 17, 1965. For substitute route structure during shutdown, use flwg:

Low Altitude

Airways	Existing Airways	Substitute Routes	MEA	MAA
V6, 810 854	CKW VOR to MBW VOR	CKW VOR to MBW Int via CKW 070 rad	13,300	17,500
V6.....	MBW VOR to SNY VOR	None		
V85....	MBW VOR to CPR VOR	MBW Int to CPR VOR via CPR VOR 155 rad	15,100	17,500
V85W..	MBW VOR to CPR VOR via Alcova Int	None		
V118...	LAR VOR to MBW VOR	LAR VOR to MBW Int via LAR VOR 324 rad	13,300	17,500
V100, 810, 854	MBW VOR to CDR VOR	None		
V138...	MBW VOR to CYS VOR	MBW Int to CYS VOR via CYS VOR 291 rad	13,300	17,500

Existing Reporting Points	Temporary Reporting Points	MRA
MBW VOR.....	CKW VOR 070 rad and LAR VOR 324 rad	13,300
Morton Int	CYS VORTAC 316 rad 30 DME	9,000
Wheatland Int.....	None	
Alcova Int	CPR VORTAC 201 rad 22 DME	8,400

ROCK SPRINGS MUN ARPT: Clsd to all ngt operns and during IFR wea pending reletn threshold lgts rnwy 7–25.

•FOUR DIGIT BEACON CODE DESIGNATION

Effective April 1, 1965, ATC facilities will use FOUR-DIGIT beacon code designation in operation and administrative ATC application; e.g., code 10 becomes 1000, code 21 becomes 2100, code 23 becomes 2300, etc.

In today's air traffic control, aircraft are equipped with one of two basic types of airborne transponders having different select code capability on Mode A/3. One type has a 64 select code capability, using a combination of two digits; the other has a 4096 select code capability, using a combination of four digits. The operational difference between a 4096 select code transponder and the 64 select code transponder is that the 64 select code transponder transmits only two front digits of the 4096 code scale; e.g., 00 of 0000, 11 of 1100, 21 of 2132, 31 of 3100, etc.

To provide a standard means for ATC to utilize one or a combination of the 4096 discrete codes, including the 64 basic select codes, FOUR DIGIT CODE DESIGNATION will be used, e.g., code 2100 would be expressed as TWO ONE ZERO ZERO.

NOTE: Pilots of a 64 select code transponder equipped aircraft should disregard the last two numerals of the numbered code issued by ATC, e.g., if assigned code 2100, set in numerals 21.

Additionally, to facilitate handling of flight data, the letter suffix indicating aircraft transponder and/or DME equipment will be associated with the type of aircraft instead of aircraft identification.

It is most important that pilots, when filing a IFR flight plan for flight in an aircraft equipped with a radar beacon transponder (no code, 64 code, or 4096 code), DME equipment, or a combination of both, identify equipment capability by adding a suffix to the AIRCRAFT TYPE preceded by a slant, as follows:

/X (Transponder, no code)
/T (Transponder, with 64 code capability)
/U (Transponder, with 4096 code capability)
/D (DME)
/L (DME and transponder, no code)
/B (DME and transponder, with 64 code capability)
/A (DME and transponder, with 4096 code capability)

NOTE: The suffix is not to be added to the aircraft identification or be transmitted by radio as part of the aircraft identification.

CHANGES/ADDITIONS TO AIM

GE 1–4

The list of airborne check points and ground check points is published in Section III. VOT's are included with the airport information in Section IV A.

December 1964

GE 1–5:

VOR Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

The terms VOR, VORTAC, and TACAN are, operationally, general terms covering the VHF and UHF omnidirectional bearing type of facilities without regard to the fact that the power, the frequency protected area, the equipment configuration, and operational requirements may vary between the facilities at different locations.

The table below lists the intended operational service volume or volumes of the various categories of VOR's, VORTAC'S, and TACAN's. Below 18,000 feet msl, the operational service volume of the H class facility has been limited to the L class service volume due to signal coverage characteristics of VHF and UHF facilities at the lower altitudes. T class facilities provide terminal service at locations where it is not practicable to provide L class frequency protection. Normal signal coverage and interference free service may be expected within the operational service volume unless specific facility restrictions have been imposed. Use of these facilities for IFR operations outside of the operational service volume without additional flight inspection is not intended and may result in undependable or inadequate indications in the cockpit.

lass of VOR, TAC, or TACAN	Operational Service Volume
Terminal)	25 nmi up to 12,000' msl
Low altitude)	40 nmi up to 18,000' msl
High altitude)	40 nmi up to 18,000' msl 130 nmi from 18,000' msl 45,000' msl 100 nmi above 45,000' msl

December 1964

E 1–5:

elete paragraphs 5 and 6 under Distance Measuring ipment (DME) and substitute the following:

Due to the limited number of available frequencies, ssignment of frequency pairs has been required for certain military noncollocated VOR and TACAN facilities which serve the same area but which may be separated from a few to many miles. Additional frequency assignments have been made for remotely located military TACAN facilities which may be within reception range of a randomly paired ILS localizer. Selection of a DME channel while tuned to a randomly paired VOR or ILS frequency could result in the reception of distance information from a source which is remotely located from the VOR or ILS facility.

6. VOR DME, VORTAC and ILS DME facilities are readily identified by synchronized identifications which are transmitted on a time share basis. Identification of noncollocated VOR or ILS and TACAN facilities are not synchronized, resulting in intermixing and apparent distortion during TACAN identification whenever simultaneous aural monitoring of VOR or ILS and TACAN identification is attempted. DME equipment has been installed at only a few ILS locations and any DME presentation while using an ILS frequency which does not have an associated DME would be originating from a randomly paired remote location.

7. Aircraft receiving equipment which provides for automatic DME selection assures reception of azimuth and distance information from a common source whenever designated VOR/DME, VORTAC and ILS/DME navigation facilities are selected. Until further advised, pilots are cautioned to disregard any distance displays from automatically selected DME equipment whenever VOR or ILS facilities, which do not have the DME feature installed, are being used for position determination.

February 1965

PAGE 1–24:

Under TRANSCRIBED WEATHER BROADCASTS add:

3. Automatic transcribed broadcasts service is available on class H facilities designated as:

a. HSAB—A class H radio beacon required for IFR radio navigation and/or airtraffic control and for automatic transcribed weather broadcast service. This class facility will be depicted on radio facility, Sectional and WAC type charts.

b. SABH—A class H radio beacon having limited navigational use in that it is not flight inspected for IFR certification or primarily used for air traffic control. This aid will provide the automatic transcribed weather

dcast service and will be depicted on Sectional and C type charts, only.

Operation of either type facility will be essentially same. Both will have a code identification sent at ency intervals keyed simultaneously with the voice ls. Although, not essential, it may be advantageous steners to equip their receivers with a 1020 cycle rejection filter which, when switched to the "voice" ion, will silence the keyed code identification signal. The AB (automatic transcribed service) component SAB's and SABH's will operate continuously except g those periods when the transcription equipment operative. During these periods manual broadcasts, luled (H+45 hourly) and non-scheduled will be .

February 1965

I-36:

der Vertigo, delete last sentence, "If the beacon . etc".

December 1964

III-91—Change Oil Burner Route

COIL SPRING

Revised Effective April 1, 1965

Look Paragraph, line 13—

31°42'N, 90°44'W) at FL 200; maintain FL 200 95 radial to the 41 NM fix (31°55'N, 90°35'W); to cross the 16 NM fix at FL 250; maintain FL or flight level assigned) to Jackson VORTAC.

March 1965

II-96—Change Oil Burner Route

LITTLE SATIN

Revised Effective April 5, 1965

Look paragraph, line 6—

ute at 38°30'N, 118°44'W aircraft shall start climb ss 38°15'N, 118°57'W at 15,000' MSL; then maintain ' MSL direct 37°48'N, 118°48'W; then climb so as ss 37°42'N, 118°36'W at or above 17,000' MSL; imb direct to cross 37°42'N, 118°00'W at FL 230; rect to the Coaldale, Nev. VORTAC.

try paragraph, line 5—

38°06'N, 118°50'W direct 38°17'N, 117°30'W; then d direct to cross 38°32'N, 117°35'W at 13,000' MSL; via the published route.

March 1965

II-97—Change Oil Burner Route

POOL SHARK

Revised Effective March 18, 1965

paragraph, line 1—

raft shall cross 42°14'N, 107°07'W (Boysen Reser- Wyo. VORTAC 130/90) at FL 220; then direct

March 1965

Page III—98—Change Oil Burner Route.

SEA HORSE

Revised Effective April 1, 1965

Short Look and Lay Down paragraph, line 9—

route exit point, turn left to 28°04'N, 96°30'W, direct to 28°00'N, 96°21'W to intercept the Corpus Christi, Texas, VORTAC 075° radial. Climb via the Corpus Christi VORTAC 075° radial to cross 28°03'N, 95°41'W, at or below 17,000' MSL; turn left to intercept the Palacios, Texas, VORTAC 120 radial, continue climb via the Palacios VORTAC 120 radial to cross the Palacios VORTAC 120°35 at or below FL 230, continue climb via the 120 radial to cross the Palacios VORTAC 120°15 at FL 250, maintain FL 250 to the Palacios VORTAC.

March 1965

Page III-98—Change Oil Burner Route

SILVER BAY

Revised Effective March 18, 1965

Route Width Paragraph—

Route Width—The route width is reduced to 5 SM southeast of centerline from 44°08'N, 97°00'W to 43°29'N, 97°35'W and 5 SM north of centerline between 43°29'N, 97°35'W to 43°35'N, 98°30'W.

March 1965

Page III-101—Change Oil Burner Route

SLEEPY EYE

Revised Effective April 1, 1965

Add the following after "Re-entry" paragraph—

VFR and Contour—If the encountered weather conditions along the route are equal to or better than ceiling 3,000' visibility 5 miles, the pilot may descend VFR and operate between the VFR altitudes indicated on the chart between the following points: From 36°58'N, 109°00'W to 36°58'N, 110°00'W and from 36°58'N, 110°30'W to 36°-58'N, 111°16'W. During daylight hours some VFR operations will be flown 500' above the immediate terrain. VFR operations will not be conducted during the hours of darkness. The lower VFR altitude shown on the chart is the minimum altitude that will be reached on each route segment.

March 1965

PAGE IV-42—Change as follows:

Second column, second entry under state of Idaho—move MACKAY 1 SE to page IV-45 second column 8th entry from bottom and substitute MACKAY 1 SE for AMERICAN FALLS, AMERICAN FALLS 2 NE. The latter moves to page IV-42 second column, second item under state of IDAHO.

January 1965

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AIRMAN'S INFORMATION MANUAL

NOTICES TO AIRMEN

SECTION III A

EFFECTIVE 0501Z 1 APRIL 1965

To 0501Z 15 APRIL 1965

FEDERAL AVIATION AGENCY

57-269 O-65-1 IIIA

Section III–A—NOTICES TO AIRMEN

This section is issued every 14 days and is primarily designed to supplement Section III of the \. It contains appropriate notices from the daily NOTAM Summary, Airman Advisories, new or re-d Oil Burner Routes, hazardous airspace activities and other items considered essential to flight safety.

E: Data preceded by a checkmark (✓) are considered per-nt and will usually be cited only once. Such information d be noted on charts and records. Temporary information is nuously cited until the condition is no longer in effect.

:: Data is arranged in alphabetical order by State (and within tate by City or locality).

OR REVISED DATA: New or revised data are indicated by dining the first line of the affected item. The new information t necssarily limited to the underlined portion, which is used to attract attention to the new insert.

ALABAMA

OL' LA BATRE, BAY VIEW ARPT: Paved 3000' ıg strip 75'S and parallel to turf rnwy. P-line each ıe of drag strip and wire across strip 75' from E end. S turf rnwy under constr, covered with stumps not be used for acft operns.

NTLEY MUNI ARPT: Clsd VFN.

NOE, BACHELOR FLD: Permly clsd.

HERINE, MARTIN FLD: Clsd until spring.

RUCKER: Extsv IFR and VFR student trng con-ted in area bounded by V–115 W, V-241 S, V–70 N l V–241 E. Normal hrs of operns 0900–2400 Mon-Fri m surface to 10,000'.

MA CRAIG AFB: Extsv jet student trng conducted ing dalgt hrs and occasional ngts Mon-Fri from sur-e to 6000' MSL. Craig ctl zone saturated dalgt hrs to 0' MSL during student trng. VFR acft should con-t Craig twr on 236.6 or 119.5 mc for tfc advisories. ig Twr is avbl for lndg advisories for acft lndg Sel-d. Clsd exep for ofl bus. clsd to transit aero club acft.

ARIZONA

SE ARPT: Clsd until aprxly Nov. 1965.

UACHUCA: See Yuma Notice.

. BEND: See Yuma Notice.

ND CANYON NATIONAL PARK ARPT: Clsd for str.

RANA, W.B. RANCH ARPT: Clsd to the public.

ICOPA: CAUTION—DO NOT MISTAKE FOR NDING AREA. Space Surveillance Stn at lat 06'31'', long 112°01'46'' aprxly 4 mi N. 1200' W and allel to hwy. Site is strip 300' x 1800' with paved tion lengthwise thru cntr 100' in width and studded h 6' steel posts. This permanent hazard ictd 22 nmi hoenix-Sky Harbor Arpt.

PAYSON, BIRCH MESA ARPT: Clsd.

PHOENIX: Pilots on other than IFR clearances should avoid traversing the following areas: LUKE AFB: Between 1300 GMT and 0100 GMT Mon thru Sat hi-density jet tfc will be operg VFR on V66/V94 between longitude 113°45'W tnd longitude 112°18'W. Also on V461 from 5 miles S of BXK VOR to the GBN VORTAC at altitude 4000' thru 6000', 15,000' and 16,000' MSL. In addition, high performance climbs and descents are being made between 2500' and 16,000' MSL in an area S of V16, E of V461, N of V66/V94/V95 and W of longitude 112°18'W. WILLIAMS AFB: Due to intensive student jet traffic within the Williams Student Training Areas 1 thru 4 between sunrise and sunset Monday thru Friday it is suggested all acft operg VFR below FL240 within 75 nmi radius of Williams AFB between the Eastern edge of V105/V257 N of Phoenix and V16 S of Phoenix; and the N edge of V94 E of Toltec Intersection remain on airways and/or at the appropriate hemispherical altitudes below the base alts when traversing the trng areas (see appropriate En Route Charts). In addition, intensive jet tfc will be operg in the venty of V16/V95/V105 between 6 and 20 nmi S of Phoenix VORTAC at and below 3500' MSL and within a 5 mi radius of Coolidge-Florence Arpt exclusive of that portion overlying V16/V94 at and below 7000' MSL. Request all acft avoid over-flying Williams AFB control zone at all alts. In addition, caution should be exercised when flying below the base alts of Areas 1 thru 4 because of student jet trng acft transitioning to and from Williams AFB to the trng areas. VFR tfc may contact Blythe, Needles, Douglas, Phoenix, Prescott, Tucson, Yuma, Deming, Grants Truth or Consequences, and Zuni FSS for further info.

PRESCOTT MUN ARPT: Rnwy 12 clsd from apch end to int with rnwy 3-21 for unknown duration. Usable length lndg and tkof rnwy 12-30 is 2900'.

TUCSON, RYAN FLD: All rnwys clsd for constr. A tmpry dirt strip perpendicular to apch end rnwy 6 will be avbl during this period.

✓TUCSON, TUCSON COMPRESSOR STATION ARPT. Clsd to the public.

YUMA, U.S. Army conducting SD–2 and SD–1 pilotless-acft (drone) flts on a cont 24 hr basis, personnel and hvy eqpmt drops from cargo type acft on a cont dalgt to dark basis and intermittent ballistic missile and rocket launching to an alt of 20,000' MSL in the ctld firing area (W portion of former C–308) bounded on the W by line extending from the W bndry of R–2307 to V16, on N by V16, on the E by the Castle Dome Mtns and on S by R–2307

ARKANSAS

FT. SMITH MUN ARPT: 156′ (769′ MSL) lgtd water twr being constrd 2 nmi NNW (335°T) at latitude 35°21′39″, longitude 94°23′05″.

ROGERS MUN ARPT: Rnwy 8–26 clsd UFN.

TEXARKANA MUN ARPT: Daily demolition activity, lctd aprxly 18 mi W, Mon thru Fri from 1200 CST to 1330 CST and 1500 CST to 1615 CST. Shrapnel and shock waves up to 3000′.

CALIFORNIA

BAKER ARPT. Clsd for repairs UFN.

BOONEVILLE ARPT. Clsd due flood.

✓CALIPATRIA ARPT: Rnwy lgts inop UFN.

CLOVERDALE MUNI ARPT: Clsd due flood.

CORNING MUN ARPT: Clsd

EDWARDS, EDWARDS AFB RAPCON: VFR radar tfc info service avbl only to acft with opernl transponder.

EUREKA, KNEELAND ARPT: Caution, rnwy extremely soft, parking area unusable.

FT. ORD (FRITZSCHE AAF): Controlled Firing Area. Small arms, surface to 1500′ MSL, dawn to dusk daily. Area lctd immediately SW of R–2511 bounded by following coordinates: beginning at 36°37′42″, 121°48′47″; clockwise along the arc of 3-mi radius circle centered at 36°35′30″, 121°50′30″; to 36°34′45″, 121°47′24″; to 36°34′45″, 121°48′35″; 36°35′45″, 121°49′45″; to point of beginning. Controlling agency: Commanding Gen., Ft. Ord, Calif.

FRAZIER PARK, LINCOLN SKY RANCH ARPT: Closed for unknown duration.

HAWTHORNE ARPT: REIL and txwy lgts will be inop 2300–0700 nightly UFN.

HYAMPON ARPT: Clsd UFN due flood.

KLAMATH, McBETH FLD: Clsd for unknown duration due flood damage.

LINCOLN MUN ARPT: Rnwy 6–24 clsd for repairs. Glider operns week-ends; ctc on unicom. Arpt restricted to acft with less than 20,000 lbs GWT.

LODI ARPK: Clsd winter months.

LOS ANGELES ARTCC: En route radar service avbl 100 nmi radius Las Vegas VORTAC except unavailable V8N from 25 miles S Mormon Mesa VORTAC to Mormon Mesa VORTAC V21 from 20 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V8 from 15 miles S Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V21E from Mormon Mesa VORTAC to Los Angeles/Salt Lake City boundary. V503 from Craters Intersection to Los Angeles/Salt Lake City boundary. V105/V135 from 25 miles W Las Vegas VORTAC to Los Angeles/Salt Lake City boundary. J9/J107, FL 180–230 inclusive from 30 miles north Boulder VOR to Los Angeles/Salt Lake City boundary. J60, FL 180–230 incl., from 55 miles N Boulder VOR to Los Angeles/Salt Lake City boundary. J11 FL 180–230 incl. from 50 miles S Bryce VORTAC to Los Angeles/Salt Lake City boundary. J92 FL 180–230 incl. from 35 miles W Boulder VOR to Los Angeles/Salt Lake City boundary.

LOS ANGELES INTL ARPT: A 90-day test is being conducted by the LAX FSS to evaluate the effectiveness of a new concept in transcribed weather broadcast script. The new concept differs from present procedures in that meteorological and notice to Airmen Data is broadcast as applied to six commonly-travelled routes out of the Los Angeles Metropolitan area. Enroute weather reports follow the weather forecast for each route. Only those elements of enr[illegible] weather reports considered to be operationally sig[illegible] ficant for flight planning purposes are spoken. Dis[illegible] ination continues to be over the Los Ang[illegible] "HOMER"; also available by telephone over Sp[illegible] 6–1640, Poplar 2–4111, Davis 3–4626 and via a sp[illegible] "Listening-only" interphone circuit which parall[illegible] present "fastline" circuit serving subscribers at V[illegible] Nuys Airport, Lockheed Air Terminal in Burba[illegible] San Fernando Airport, Whiteman Air Park in Pac[illegible] and Rancho Conejo Airport near Thousand Oaks.

MODESTO CITY-COUNTY ARPT: All pilots must c[illegible] Stockton Apch Ctl prior to conducting IFR flight oper[illegible] in Modesto Ctl Zone. Transmit 122.5, receive 108.4.

NEEDLES–RIVERVIEW ARPT: Clsd to public UFN.

POINT ARGUELLO: Civil acft desiring to transit W[illegible] call Navy Point Arguello on 122.5 mcs (guard 24 hr[illegible] and listen for reply on 124.4 mcs.

SANTA BARBARA RDO: Width of Naples FM at [illegible] cept alt on ILS lclzr crs 3200′ or slightly wider th[illegible] standard ILS OM. During VOR outages or shutdow[illegible] for maintenance, flt checks reveal numerous usab[illegible] signals being emited by acft rdo shops in Los Ange[illegible] Area on Santa Barbara VOR freq 114.9 mc are to be d[illegible] regarded.

UPPER LAKE, GRAVELLY ARPT: Clsd due flood.

COLORADO

DENVER, LOWRY AFB: Ctld firing (demolition) area use daily except Sat, Sun and holidays 1430–2330Z wi[illegible] in a radius of 2500′ of point lctd 104°41′11″W, 39°[illegible] 30″N up to 1000′ above surface.

EAGLE: Ctld firing for use of Camp Hale. Area [illegible] nmi radius from point lat 39°27′, long 106°19′[illegible] max ordinate of firing 15,000′ MSL. Time of u[illegible] continuous 24 hrs daily. Controlling agency: Co[illegible] manding General, Fort Carson.

✓HANOVER RDO: H facility decomsnd.

PUEBLO: Controlled Firing (demolition) area for use the Pueblo Ordnance Depot established within the f[illegible] lowing described area: bounded on N by lat 38°22′ [illegible] E, long 104°21′22″; S, lat 38°18′00″; W, long 104°2[illegible] 50″. Hrs of usage: 0900–1600 MST, Mon-Fri. Max [illegible] 5000′ above the surface.

CONNECTICUT

BETHANY ARPT: Closed.

BURLINGTON, JOHNNYCAKE ARPT: Closed.

MARBOROUGH, LESNEWSKI FLD: Clsd to all [illegible] until aprxly June 1, 1965.

WATERBURY ARPT: Clsd.

DELAWARE

✓GEORGETOWN, SUSSEX CO ARPT: Rnwy 10-[illegible] 16-34 permly clsd.

MIDDLETOWN, SUMMIT AIR PARK: E-W rnwy cl[illegible] until aprxly April 1965.

DISTRICT OF COLUMBIA

WASHINGTON: Warning—all flights must avoi[illegible] Washington Prohibited Area P–56. See current [illegible] in Section III of this manual for location of P[illegible]

WASHINGTON, MT VERNON: Low flying acft req[illegible] to avoid immediate vcnty Mt. Vernon estate lctd W[illegible] Potomac River 10 mi S Washington Natl Arpt.

ASHINGTON NATL ARPT: JET POLICY FOR VASHINGTON NATIONAL AIRPORT—Due to imited ground handling facilities at the Washington ational Airport, flight operations of only those turbo-et aircraft that meet the following criteria can be ac-ommodated: A. Except under emergency conditions, nly approved types of turbojet aircraft of short or edium range (1) are engaged in corporate, private harter or rental type operations, and (2) solely in-end to utilize the Airport's General Aviation ground ervice facilities. B. Currently approved types of edium and short range turbojet aircraft are as fol-ows: 1. Jetstar 2. Sabreliner 3. Morane Saulnier C. hort or medium range turbojet aircraft of types not sted above must secure advance authorization from he Airport Manager. Requests for such authorization ould be made at least 48 hours in advance of the lanned aircraft arrival at the Airport. D. Because f limited capabilities, the Airport cannot accomodate perations of turbojet aircraft for proficiency or prac-ce take-off or landings.

FLORIDA

PS TO HAITI, PUERTO RICO AND DOMINICAN EPUBLIC NOTICE: HAITI, private acft landing or verflying Haiti must furnish 48 hours advance notice d a flight plan must be filed. Pilots planning to v between the mainland and PUERTO RICO ould plan their route to avoid unscheduled emer-ency fuel stops. Pilots planning to fly to the DO-INICAN REPUBLIC should refer to the International ight Information Manual for complete details.

TICE: Florida Forest Service requests that all acft oid flying over forest fires in South Florida at low titudes due to the possibility of Forest Service Acft erns directing ground equipment over active fires.

OA, CENTRAL BREVARD COUNTY ARPT: Clsd til further notice for constr.

LAUDERDALE: USN inert ordnance drops April May 21 from 2000' and under. Drops will take ace in two areas. Area 1—aprxly 2.2 miles offshore jus, Fla. Area 2—aprxly 20 miles offshore Hallan-le, Fla. Drops will be made btn 1130Z and 2100Z der VFR conditions only. Specific target area will marked by a white smoke pot when the drops are minent or in progress.

MYERS, LEHIGH ACRES WEST ARPT: 995' 60' MSL) lgtd TV twr being constrd 6 nmi SE 9° T) at lat 26°35'09", long 81°37'53".

SACOLA: Intensive student conventional and jet FR trng activity cross V22 at 12,000' MSL btn avy Saufley (NUN) VOR and Navy Whiting (NSE) OR 135 radial; and within a radius of 3 nmi Whiting AAS and Saufley NAAS at and below 2500' MSL. ggest course or altitude be altered to avoid these eas. Radar VFR advisory service avbl on 119.0, 286.0 c for acft eastbound or arriving from the E, or on 3.9, 281.8 for acft westbound or arriving from the est.

RY-FOLEY ARPT: 500' (545' MSL) lgtd rdo twr ing constrd 3 nmi E (080°T) at lat 30°04'19", long 31'28".

ISULA, SPRUCE CREEK ARPT: Clsd April 23, 24 d 25, 1965

IPA: VFR acft desiring radar ATC service in Tampa, . Petersburg Area should ctc Tampa apch ctl on freq 118.5 mc or 363.8mc. Acft revg this service and not operg to or from MacDill AFB may expect to be vectored as necessary to avoid publicized MacDill AFB area of hi density.

VALKARIA ARPT: Rnwy 13-31 only rnwy in use. Thres-hold displaced 1215' from end of rnwy 13 and 1000' from end of rnwy 31. Tkof and lndg lengths both rnwy 13 and 31 is 1000'.

VALPARAISO: SPECIAL AIR TRAFFIC RULE FOR VALPARAISO TERMINAL AREA—FAR Amendment 93-5 becomes efctv 0901 EST, Dec. 10, 1964. It specifies that btn SR and SS, Mon. through Sat., unless other-wise authorized, no person may operate an aircraft in the air corridor between R-2915A, R-2915B and R-2914, unless, before operating within the corridor, that person establishes communication with air traffic control (ATC) for the purpose of receiving an ATC advisory concerning operations being conducted there-in. These advisories will provide information which will permit pilots to select altitudes not being used for special military flight operations. Advisories may be obtained through any form of communications; how-ever, they may be obtained most readily by radio communications with Crestview Radio and Eglin Tower or Approach Control.

WINTER HAVEN, CYPRESS GARDENS ARPT: Clsd to public for unknown duration.

GEORGIA

AUGUSTA-BUSH FIELD: Procedure ILS-35, Amdt. 9, efctv 14 Dec 63 and Amdt. 10, efctv 3 Apr 65 are amended as follows, effective immediately: Add note, 300-¾ required when glide slope not utilized due steel tank contsruction.

CAIRO MUN ARPT: Clsd due constrn until aprxly May 1, 1965.

COCHRAN ARPT: Clsd until aprxly May 1965.

MACON, SMART ARPT: 233' (863' MSL) lgtd micro-wave twr constrd 11 nmi NNW (333°T) at lat 32°58'34", long 83°39'45".

ST. MARYS ARPT: Trash dump at ends of rnwys 10 and 22 attracts large flocks of seagulls. Frequent burning of trash reduces visibility on apch.

SAVANNAH, SAFFOLD FLD: 247.5' (253.5' MSL) and 254' (261' MSL) lgtd steel twrs being increased to 254' (261' MSL) and 279' (286' MSL) 4 nmi NNW (317°T) at lat 32°04'47", long 81°02'54".

SAVANNAH SAFFOLD ARPT: Clsd until further notice.

STATESBORO MUN ARPT: 1000' S end rnwy 18-36 to intsxn of rnwy 13-31 clsd for unknown duration. Re-maining rnwy rough usable length 4200' both direc-tions.

IDAHO

BOVILL, HALLS HILLTOP ARPT: Clsd until aprxly May 1965.

CAYUSE CREEK USFS ARPT: Skiis only winter months.

CAMAS COUNTY ARPT: Clsd for unknown duration.

CAREY MUN ARPT: Clsd for unknown duration.

DEARY ARPT: Clsd until aprxly May 1965 due winter conditions.

ELK RIVER ARPT: Clsd aprxly May 1965 due winter months.

HORSE HEAVEN USFS ARPT: Skiis only winter months.

MAGIC RESERVOIR AIR STRIP: Clsd for unknown duration.
MAGEE USFS ARPT: Skis only winter months.
RICHFIELD, REYNOLDS ARPT: Clsd until May 1965.
SPIRIT LAKE ARPT: Clsd winter months.
VICTOR MUN ARPT (BENNETT FLD): Clsd UFN.

ILLINOIS

CHICAGO, HINSDALE ARPT: Clsd to all transient acft except in emgcy UFN.
CHICAGO, MIDWAY ARPT TWR: Radar advisory to all acft operg VFR. This service is designed to aid pilots to see and avoid other tfc by providing radar tfc info. All VFR acft operg within a 30 mi radius of MDW at 10,000′ MSL or below can obtain this service by ctcg MDW radar on 119.2 mc. On initial ctc acft are required to advise MDW radar of their aprx position and alt, heading being flown and their destination. All tfc will be current altimeter at MDW. Acft lndg at MDW will be issued wind and rnwy info. Tfc transiting the area will be provided this service til 3 mi from perimeter of radar scope at which time this service will be terminated. Radar service described herein is not to be interpreted as relieving the pilots of their responsibility for continual vigilance to see and avoid other acft. It is provided to aid him in his visual surveillance by calling to the pilots attention pertinent tfc. Pilots are reminded that the surveillance radar utilized by controllers does not provide alt info. Pilot participation is not mandatory but is recommended.
CHICAGO-O'HARE INTL ARPT: Motel sign 1¾ mi from apch end of rnwy 32L maybe mistaken for apch lgts. Caution advised.
PEORIA, GREATER PEORIA ARPT: 5′ unlgtd fence at apch end rnwy 22. Arriving acft with proper freq should make initial ctc with apch ctl on 125.8 mc regardless of wea.
POLO, HAMILTON FLD: Closed until further notice due ice and snow.
STOCKTON ARPT: Clsd UFN.
SULLIVAN COMMUNITY ARPT: Closed winter months due soft rnwys, mrkd with "X".

INDIANA

ORLEANS ARPT: Clsd to acft over 6000 lbs during winter months.
SCOTLAND: Controlled explosive demolition is conducted week days 0730–1600, at the U.S. Naval Ammunition Depot, Crane, Ind in a controlled firing area one nmi in diameter lctd 160°/8.7 nmi from Scotland VORTAC from the surface to 2200′ MSL.

IOWA

CHARITON ARPK: Clsd for rnwy paving.
GUTTENBERG MUN ARPT: Clsd to all acft UFN.
✓LUANA, SWENSON ARPT: Clsd to public.
MT PLEASANT MUN ARPT: Clsd until aprxly April 15.
NEWTON MUN ARPT: NE/SW rnwy clsd.
✓PLEASANTVILLE, BURRELL FLD: Clsd to public.
WASHINGTON MUN ARPT: Clsd until aprxly June 1, 1965.

KANSAS

LYONS MUN ARPT: During dalgt hrs agricultural acft on tkofs are using nonstandard patns due to proximity of congested areas and are proceeding at low altitude out of tfc patn area. Constr on all txwys and ramp areas. NW/SE and NE/SW rnwys clsd.
SALINA MUN ARPT: VOR Proc. No. 1, Amdt. 5, effective 30 September 1961, is revised as follows effective immediately: Add Note: Radar vectoring to final approach course authorized.
✓TOPEKA, PHILIP BILLIARD MUN ARPT: 3[illegible] (1350′ MSL) lgtd rdo twr contrd 10.5 nmi ESE (070°T) at lat 39°07′33″, long 95°24′16″.
TOPEKA, PHILIP BILLARD ARPT: ADF No 1, Amdt 16: ILS–13. Amdt 17 and ILS–31. Amdt 7 are amended as follows, effective immediately: C–dn, two eng or less 65 kt or less, 600–1 vice 500–1. Unlighted smoke stack 1137′ msl within circling criteria.

KENTUCKY

WEST LIBERTY, MORGAN CITY ARPT: Clsd.

LOUISIANA

GRAND ISLE RDO: About March 15, VOR will be comsnd. Ident: "GNI." Freq: 109.4. Class: L-BVOR. Lctd at lat 29°10′26″, long 90°06′12″. Variation 6° E. Monitoring category 1. Ctld by New Orleans FSS.
✓HAMMOND MUN ARPT: 200′ MSL) lgtd rdo twr constrd 4 nmi WNW (294°T) at Lat 30°32′26″ Long 90°29′04″.
HOUMA, HAMMONDS AIR SERVICE SEAPLANE BASE: 408′ rdo twr mrkd and lgtd lctd 0.2 nmi SW
HOUMA MUN ARPT: 200′ (210′ MSL) lgtd tmpry derrick constrd 1 nmi NNW (333°T) at lat 29°37′ long 90°40′30″. Will be removed 7/1/65.

MAINE

BAR HARBOR ARPT: Rnwys 7–35, 4–22 plowed 3[illegible] 105′.
BLUE HILL ARPT: Clsd winters.
DEBLOIS FLIGHT STRIP: Clsd winters.
EASTPORT MUN ARPT: Rnwys not plowed.
HOULTON INTL ARPT: Rnwy 5–23 plowed w[illegible] months.
HUDSON, ROBBINS FLD: Clsd winters.
LUBEC ARPT: Clsd winters.
MILLINOCKET MUN ARPT: Rnwy 11–29, txwy & ramp plowed winter months. Rnwy 16–34 ski op[illegible] only, snow banks across 16–34 at intersection with 11–29. Acft using 16–34 and 11–29 not visible to each other until apchg intersection.
MOOSE RIVER, SKY LODGE ARPT: Closed winters
OLD TOWN MUN ARPT: Rnwy 15–33 plowed full length and width.
PRINCTON MUN ARPT: Rnwy 6–24 not plowed w[illegible] months.
THOMASTON ARPT: Rnwy not plowed during [illegible] winter.
WINTERPORT, FERNALD ARPT: Rnwys not p[illegible]

MARYLAND

ANNAPOLIS SPECIAL NOTICE: Electromagnetic radiation vcnty parabolic antenna at Greenburry Pt lat 38°58′22″, long 76°27′00″, about 2.3 nmi ESE immediately SE Annapolis NAF. This radiation not visually apparent but definitely dangerous to personnel acft, pwr service, insts. Pilots of helicopters w[illegible]

ginst hovering in venty and should avoid apchg loser than ½ mi.
ESTERTOWN, GILL ARPT: Clsd to transients until larch 31.
CRICHTON, DEEP CREEK ARPK: Clsd until May 15, 65.
LLEGE PARK ARPT: Open. The abandoned arpt deted on the Washington Sectional Chart is Erco Fld.
STON MUN ARPT: Rnwy 14-32 clsd ngt operns, due s inop.
KTON, LOVETT ARPT INC: Clsd to all acft until prxly April 1.
LDEN HILL ARPT: Clsd winter months.
RK HALL ARPT: Flight in Restricted Area R-4007 uthorized only within one mi radius of arpt and in ne mi wide corridor 242° (M) from the arpt at and low 1200'.
EY POINT ARPT: Flight in Restricted Area R-4007 uthorized only within one mi radius of arpt and in ne mi wide corridor 347° (M) from the arpt at and low 1200'.
VENSVILLE, CARROLLS ARPT: Clsd UFN.

MASSACHUSETTS

CIAL NOTICE: Field conditions for all arpts avbl rough the nearest Massachusetts State Police Hdqtrs.
CIAL NOTICE: VFR wea warning signs installed pt ramp areas at number of Cape Cod and bordering land letns. Signs funtion with associated flashg lgt ring periods where wea is forecast or actually goes low VFR minimums. Sign and lgt sys operns at atham and Martha's Vineyard during hrs arpt attended. At Hyannis, New Bedford and Nantucket 24 s daily.
TON ARTCC: Nov 24, extended radar enroute tfc l service will apply to acft departing from destined Concord Mun, Hartness Mun, Laconia Mun Airports le enroute via portions of Blue 63, V-141, V 111E, 63, V-39, V-151, V-151W, V-1697 and V-1695. Norl clearance limit is arpt of destination. Primary q for this service is 127.3, or 354.1 mc. Additional q is 127.0 mc or 397.9 mc. ARSR and BCN comsnd Saratoga Springs, N.Y. peripheral site.
TON, LOGAN ARPT: All standard instrument apch ocedures are amended as follows, efctv immediately: TE: no circling west of the airport authorized m centerline extended rnwy 4 left to centerline exded rnwy 15 when ceiling is less than 800'. CAUON: 505' bldg 1.7 mi W of arpt.
BLUFFS ARPT: Clsd winter months.

MICHIGAN

HIGAN: The following arpts are clsd for unknown ration due to winter months. Cheboygan, Marx d.; Munising, Hanley Fld.; Houghton, Sands Arpt.
ENA, PHELPS COLLINS ARPT: First 1000' rnwy clsd to day and ngt lndg and ngt tkof also last 0' of rnwy 18 clsd to ngt tkof and lndg UFN.
TON HARBOR RDO: Non-federal Rbn ident. BEH. ss: MHW. FREG: 400kcT Lctd on Rossfield at 42°07'30.6". Long. 86°25'57.1". Owned and opated by Twin Cities Arpt Board. Public instrument ht rule apch procedures are predicated on this ility.
NE CITY MUN ARPT: NW/SE rnwy clsd UFN.
ILLAC MUN ARPT: All rnwys except 7-25 clsd to but ski equipped acft for the winter.
DRUMMOND ISLAND ARPT: Daily blasting in limestone quarry between 1200-1800 EST within 1 mi radius of lat 45°58'00"N long 83°47'30"W aprxly 3.5 mi SSW, fragments reaching altitude 1500 AGL 2300 MSL.
ELMIRA, KANDAHAR ARPT: No snow removal during winter months.
FENTON, AERO ACRES ARPT: No snow removal, ctc Flint FSS for current info.
FLINT, BISHOP ARPT: Caution, small herd of deer on the S half of fld.
FRANKFORT CITY-COUNTY ARPT: Rnwy 1-19 clsd for winter due to snow.
FLUSHING, DALTON ARPT: No snow removal during winter months. Ctc Flint Rdo or Unicom for fld conditions.
GAYLORD RDO: State owned and operd VOR operg 24 hrs daily, VFR use only. Class: L-BVOR Freq: 109.2 mc. Ident: GLR. Lctd lat 45°00'48", long 84°41'30", Gaylor Arpt. Rcvg freqs 122.1, 126.7 mc. Monitoring category (1)
GAYLORD, OTSEGO CO ARPT: Rnwy 18-36 no snow removal during winter months.
HESSEL ARPT: No snow removal during winter months.
HILLMAN ARPT: Open ski equipped acft only winter months.
HOUGHTON LAKE, ROSCOMMON CO ARPT: Rnwys 18-36, 4-22 clsd to all but ski operations for the winter due to snow.
HOUGHTON LAKE HEIGHTS, HOUGHTON LAKE STATE ARPT: Skiis only during winter months.
INDIAN RIVER, CAMPBELL MUN ARPT: No snow removal during winter months.
LAPEER, DUPONT LAPEER ARPT: Ctc Flint FSS for current info during winter months.
LEWISTON ARPT: Open ski equipped acft only winter months.
MANISTIQUE, SCHOOLCRAFT CO ARPT: Fld unlgtd UFN.
MARLETTE ARPT: Clsd Ctc Saginaw FSS for current arpt conditions.
MARQUETTE CO. ARPT: About 17.5 mi WSW blasting in the Republic and Humboldt areas Mon-Fri from 2045 to 2145Z. Danger area extending 1000' AGL. About 5.2 mi SSW intermittent blasting in Palmer area. Danger area extending 1000' AGL.
MIO ARPT: Open to ski equipped acft only for the winter months.
✓ MT. PLEASANT RDO: Non-federal VOR comsnd on freq 109.8 mc for VFR use. Ident: MOP. Lctd 43°37', long 84°44'. Class: T-BVOR. Owned by State of Michigan.
MUNISING, HANLEY FLD: Clsd until aprxly May 1965.
OWOSSO CITY ARPT: Ctc Flint FSS for current info during winter months.
SAGINAW MUN ARPT: Clsd to all ngt operns UFN.
SAULT STE. MARIE: Daily blasting excp Sun btn hrs of 1500-1630 EST in limestone quarry within a 1 mi radius of lat 46°04'N, long 84°18'W, 13 mi SE of Kincheloe AFB. Fragments reaching alt of aprxly 2200'. AGL (3000' MSL.)
✓ SELFRIDGE RDO: VOR unusable for civil acft. Following intersections are cancelled: Cascade, Clair Kings Mill Marine City and Pointe.
STAMBAUGH CITY ARPT: Clsd until further notice.

✓THREE OAKS, OSELKA ARPT: 225′ (1100′ MSL) lgtd microwave twr constrd 5 nmi SSE (155°T) at Lat 41°42′10″ Long 86°35′13″.

TRAVERSE CITY ARPT: Rnwys 13–31 and 5–23 clsd for the winter.

VANDERBILT, SUNGLENN ARPT: No snow removal during winter months.

WASHINGTON HARBOR, ISLE ROYALE NATIONAL PARK: Jan. 30 until aprxly March 20, a flashing red bcn will be in opern as a navigation aid for small acft engaged in winter operns on this island. Burning of smoke producing material will be in progress on Mt. Feldtman and outer Washington Harbor during late February and early March.

MINNESOTA

AITKIN MUN ARPT: Clsd to wheeled acft during winter months.

COOK MUN ARPT: Closed winters.

DEER RIVER, BOWSTRING TOWNSHIP ARPT: Closed winters.

DEER RIVER MUN ARPT: Closed winters.

ELY MUN ARPT: Clsd to wheeled acft. Not plowed UFN.

EVELETH-VIRGINIA ARPT: Extsv blasting being conducted in mine pits in area 2 mi either side of a line from Aurora, Minn., to a point 4 mi SE of Babbitt, also extensive blasting being conducted in mine pits in an area 4 to 8 miles WNW of Virginia. Ctc Hibbing FSS for blasting schedule.

LITTLE FORK MUN ARPT: Clsd to wheeled acft winter months.

MINNEAPOLIS ARTCC: Enroute radar service except radar weather advisory service is available in the Minneapolis advisory area E of a line from a point on the United States-Canadian boundary 126 nmi NW of Sault Ste. Marie, Mich. VOR thence SW to Houghton, Mich VOR thence SW to 46°39′, 89°45′, thence via the Minneapolis area positive ctl boundary to the common Minneapolis-Chicago boundary at 45°34′, 89°18′. Radar jet advisory service except radar weather advisory service is available along J90 and J16 btn 25 nmi W of Sioux Falls, S. Dak and 33 nmi SE of Dupree, S. Dak; along J32 btn 70 nmi NE of Aberdeen, S. Dak and 32 nmi E of Dupree, S. Dak.; and along J70 btn 50 nmi E of Aberdeen, S. Dak; and 80 nmi NW of Aberdeen, S. Dak. Due to eqpmt characteristics, radar weather advisory service cannot be provided.

ST. CLOUD, WHITNEY MEML ARPT: Rnwy 1–19 clsd until aprxly May 1, 1965.

WARREN MUN ARPT: Open ski acft only.

MISSISSIPPI

CAMP SHELBY: April 23, 24, 25 and 26th R4401 will be in use. Hrs of opern: 1400Z–2200Z. Altitude: Surface to 3500′.

McCOMB, PIKE COUNTY ARPT: Rnwy 7–25 clsd for unknown duration. Constr in progress on rnwy and txwy shoulders until aprxly April 1965. Do not pull off hard surfaced rnwy onto shoulder areas.

MISSOURI

SPECIAL NOTICE: Extreme caution necessary on V–13 vcnty Grandview, Richards-Gebaur Arpt., due concentration of tfc alts. Where possible, suggest all users operate via V–13E btn Kansas City and Butler Arpts.

FT. LEONARD WOOD—FORNEY AAF: Radar Proc No. 1, Amdt. 1, efctv. 31 Oct 64 is amended as follow- PAR and ASR: C–dn minimums 500–1, 600–1½, 6- 1½.

FORT LEONARD WOOD, FORNEY AAF: Fld clsd civil acft except on business and on flgt plan. Tw- way rdo and prior clearance from twr rqrd bef- entry into R–4501. Enter R–4501 on SE heading 140° from Waynesville, Mo.; SSW heading 210° fr Vichy, Mo. (VOR); WNW heading of 290° fr- Maples, Mo. (VOR). Rgt tfc rnwy 14. Rnwy 2- clsd. Txwy from S end of mil apron to rnwy 15- usable for takeoff and lndg in emgcy or on req.

✓ ST. JOSEPH, PITTS ARPT: Abandoned.

MONTANA

The following is a list of fld clsd winter months: C- USFS, Meadow Creek USFS Arpt, Ovando, C- water Arpt, Pole bridge, Quarter Circle M.C. A- Ronan Arpt, Seeley Lake Arpt, St. Ignatius A- Thompson Falls Arpt, Troy USFS Arpt, Whit- Arpt.

FORT BENTON ARPT: Bcn inop until aprxly May 1965.

GREAT FALLS ARTCC (NOTIP): En route ra- service radar weather advisory service ava- throughout the enlarged Great Falls ARTCC NO- area Due to equipment characteristics radar wea- advisory service cannot be provided in this area on J107 from the centers eastern boundary to Canadian border where civil turbojet radar adv- service is being provided by Great Falls ART- NOTIP. VFR service in the Kalispell, Mont- area will continue to be available through use of ARTCC freq 120.4 mc. VFR flights in the Kal- area call 'Great Falls Center—VFR Service'. Fu- information is contained in a letter to Airmen that been distributed in the area.

KALISPELL, FLATHEAD CO ARPT: Rnwy 11–2- 7–25 clsd due snow UFN. Rnwy 1–19 remains o-

NEBRASKA

ARAPAHOE MUN ARPT: Closed to all operns UFN

HASTINGS MUN ARPT: Constrn in progress.

CRETE MUN ARPT: Clsd due rnwy constrn.

OMAHA RDO: Voice comms with Omaha, Nebr FSS usable below 3600′ on V–6–8S btn 36 and 55 nmi E VORTAC excp tsntg 116.3 mc.

SCRIBNER, SCRIBNER STATE ARPT: NE/SW - tmprly clsd.

NEVADA

SPECIAL NOTICE: Contact Lovelock Area Radio information concerning release time of Restricted A- R–4803. At other than release times flight is restr- at 8000′ MSL and below along airways in N p-- and at 18,000′ MSL and below S of airways in R-4- Geographical coordinates of R–4803 are from 3 - radius circle centered at lat 39°20′, long 118°52′ - within 3 nmi W and 2 nmi E of a line extending 3- T from the circles center 15 nmi NNW.

SPECIAL NOTICE: Demolition of ordnance bein- ducted daily UFN Mon-Fri 1000–1500 with da-- acft from surface to 10,000′ MSL within a one a- half mi radius of coordinates 38°14′30″, long 11- 45″. aprxly 20 mi S of Naval Ammunition Dep- Hawthorne.

S VEGAS: Hi-density jet tfc: Pilots on other than FR clearance should either avoid or use extreme aution when traversing the following areas within hich Nellis AFB hi-density jet tfc is operg. Hours f Operation: 0600–1800 local time, Monday thru Saturlay, continuous daily at 9000' MSL and below within 5 mi radius of Nellis AFB. Surface to 23,000' MSL ithin flg boundaries: 36°42', 115°18'; 36°42', 114°32'; 6°26'25", 114°52'15"; 36°23'30", 114°48'20"; 36°-7'30", 114°31'; 36°24'50", 114°25'10"; 36°30', 114°-5'40"; 36°32', 114°12'; 35°56', 114°12'; 35°56', 115°-5'30"; 36°07', 115°50'; 36°41', 115°50'; 36°41', 115°-2'; 36°35', 115°42'; 36° 35', 115°37'45"; 36°26', 115°-3'25"; 36°26', 115°18'; to point of beginning. Btn 700' MSL and 23,000' MSL within the flg boundaries: 6°07', 115°50'; 36°41', 115°50'; 36°41', 115°42'; 36°35', 15°42'; 36°35', 115°37'45"; 36°26', 115°23'25"; 36°23'-5", 115°23'25"; SE along US 95 to 36°14'20", 115°14'; est to closest 5000' elev line at 36°13', 115°22'; SW ong 5000' elevation line to 36°08'50", 115°30'; to nt of beginning. Surface to 23,000' MSL within boundaries: 36°42', 115°18'; 36°26', 115°23'25"; °23'25", 115°23'25", SE along US 95 to 36°14'20", 5°14"; 36°13', 115°07'30"; clockwise along NW edge a 5-mile circle around Nellis AFB to 36°15'30", 5°07'45"; 36°31', 114°56'40"; 36°34'30"; 114°41'-0"; 36°42', 114°32'; to point of beginning. Btn 8000' SL and 9000' MSL within flg boundaries: 36°31', 4°56'40"; 36°42', 114°12'; 36°32', 114°12'; 36°23'-0", 114°48'20"; to point of beginning. Btn 10,000' SL and 23,000' MSL within flg boundaries: 36°14'-0", 115°14'; west to closest 5000' elevation line at 6°13', 115°22', SW along the 5000' elevation line to 6°08'50", 115°30'; 36°10', 115°10'; to point of beginng. Surface to 9000' MSL within flg boundaries: 6°15'30", 115°07'45"; 36°31', 114°56'40"; 36°23'30", 4°48'20"; 36°12', 114°58'; clockwise along southern ge of Nellis AFB Control Zone to point of beginning. ggested arrival and depature route NE of Las Vegas: main E of the 025 radial of LAS VORTAC and outer nits of Nellis AFB ctl zone at or below 7000' MSL equent violations reported of Restricted Area R-4808 W of Las Vegas. This area extremely hazardous to truding aircraft. All civil acft warned to keep clear this area. Caution in ctl zone area, tow-target patn tween Nellis AFB and a point 8.7 nmi N of Nellis FB descending from 10,000'.

VEGAS, McCARRAN FLD: VASI inop until aprxly ay 1, 1965.

DEN, DOUGLAS COUNTY ARPT: Caution exnsive glider operns dalgt hrs. Caution student robatic training dalgt hrs in vcnty and E of rnwy -34 from 6500' to 9000' MSL.

NEW HAMPSHIRE

MANTON IRON WORKS, BESSE FLD: Clsd nters.

TH STRADFORD ARPT: Clsd winters.

NEW JERSEY

ANTIC CITY NAFEC/ATLANTIC CITY (PODNA) ARPT TWR: Experimental DME rnwy 13 S operg channel 30, freq 991 mc ident: XAB comnts required.

KING RIDGE, SOMERSET HILLS ARPT: Clsd to nsient acft until spring 1965.

ER: Picatinny Arsenal: ctld firing area 3 mi wide tending from Dover to point 11 mi N. Area centers on railroad running N from Dover. Mortar firing and demolition blasts surface to 7000' MSL. Prior entering area ctc Teterboro Rdo.

MILLVILLE MUN ARPT: Operns restricted to hard surface areas only.

OCEAN CITY ARPT: Clsd until spring, 1965.

NEW MEXICO

ALAMOGORDO MUN ARPT: Pole 1200' from apch end rnwy 16.

ALBUQUERQUE: Controlled firing will be conducted periodically and on a continuing basis at a point aprxly 8 mi E of Albuquerque Homing facil and 8 mi SE of E end of rnwy 8 Kirtland AFB. Ctc Albuquerque FSS or twr for time and avoidance area.

ALBUQUERQUE: "Cratering—uncased explosives" tests will be conducted 0700–1000M daily excp Sat and Sun. These ctld firings are conducted only during VFR wea conditions and lctd aprxly 8 mi SSE Kirtland AFB at lat 34°57'30", long 106°33'45". Soil clods may be thrown to a radius of 1000'.

HOBBS MUN ARPT: Rnwy 8-26 clsd.

LOS ALAMOS: Use of the airstrip at Los Alamos is limited to official purposes of the US Atomic Energy Commission and emgcy lndgs. Any unauthorized use will be considered trespass. Any lndgs on the Los Alamos Arpt, or other use of its facilities, by a private pilot who does not have written permission from the Atomic Energy Commission, shall be deemed for all purposes to be (1) an assumption of all risks and liabilities by such pilot in connection with his use of the Los Alamos Arpt, (2) a recognition and agreement that neither the United States of America, its cost-type contractors, or their officers, agents or employees has any obligation to such pilot to operate and/or maintain the airport or its facilities in a safe manner or condition, and (3) an agreement to sign a document reflecting the foregoing.

✓ROSWELL MUN ARPT: 250' (3812' MSL) lgtd rdo twr constrd 2 nmi NE (030 T) at lat 33°26'27", long 104°31'36".

ROSWELL MUN ARPT: Constrn on rnwy 17–35 extension until aprxly Jun 1. Men and equipment working NE quad arpt off apch end rnwys 17 and 21 to fld bndry. First 850' runway 17 clsd. Usable length both directions 4113'. Open to lgt acft only.

NEW YORK

ANTHONYS NOSE: Awy bcn site #4 will be permly decmnsd.

KEESEVILLE ARPT: Clsd winters excp to ski acft.

MORRISONVILLE, NORTHWAY ARPT: Rnwy plowed during winter.

NEW YORK ARTCC. About Apr 4, freq 137.65 mc will be decmsnd.

NEW YORK CITY: 1520' rotating bcn atop Empire State Bldg lctd aprxly 11 mi NW JFK Arpts opers on rotating basis dusk to midngt. From midngt to day break bcn in fixed position with light beamed directly S.

NEW YORK, BROOKLYN SEAPLANE BASE: Clsd until aprxly May 1965.

NEW YORK JOHN F. KENNEDY INTL TOWER: August 1, 1964, Kennedy Tower began an evaluation of a new "pre-taxi clearance" concept, which is intended to provide departure aircraft with better serv-

ice by permitting more expeditious handling reducing frequency congestion and providing a better atmosphere for receipt of the IFR clearance. Additionally, participating flights will normally remain on a single control frequency from the time the aircraft commences taxiing until ready for departure.

The following procedures will be evaluated:

1. Initial call-up to the tower will be on Clearance Delivery, frequency, 121.65 mcs. This call shall be made a maximum of ten (10) minutes prior to estimated taxi time. IFR clearance and departure runway currently in use shall be issued at this time. Time and altimeter setting will be isued to all itinerant departures and to schedu'ed air carriers when requested.

2. Additional information shall also be issued at the time of clearance delivery. This information shall consist of only that which will concern the departure aircraft. An example of this would be an advisory that departure de'ays are twenty (20) minutes and that turbojet aircraft should contact Ground Control prior to starting engine:.

3. After clearance is received, aircraft shall return to normal frequency use, i.e., contacting Ground Control on 121.9 mcs., when ready to taxi. Pilots need not inform Ground Control of receipt of c earance. As heretofore, aircraft will become part of the departure sequence only after informing Ground Control they are ready to taxi.

4. If an IFR clearance is not available prior to the time a flight is ready to taxi, the pilot will be changed to Ground Control and issued taxi clearance and later changed to Clearance Delivery for an IFR clearance.

5. If aircraft make initial call-up on Ground Control frequency, they will be given clearance to taxi as heretofore, and later changed to Clearance Delivery for their IFR clearance. No aircraft shall receive additional de'ay because of non-participating in this program.

6. In the event a flight is delayed by its company or other unanticipated circumstances after the IFR clearance has been issued, the pilot shall inform the Clearance Delivery Controller of the delay ,and shortly prior to taxiing out, re-affirm that the clearance and information is still valid.

NEW YORK LA GUARDIA ARPT: Until Apr 25, 1965, arpt will be clsd to all acft operns from 2330 to 0700 EST Monday thru Saturday due to constrn.

NORTH TONAWANDA, COUNTY LINE ARPT Clsd to transient acft until May 15, 1965.

ORCHARD PARK: Clsd until spring.

ROMULUS, SENECA ARMY DEPOT: Controlled firing for demolition purposes when wea permits during regular working hrs Mon-Fri within flwg area: A circular area with a 1350′ radius centered at lat 42°46′59″N and long 76°53′06″W. Demolition activities in the area will go no higher than 2000′ MSL and only when ceiling of 5000′ or better and visibility 5 mi or more. Notams regarding activities conducted will be filed with Elmira FSS.

STORMVILLE ARPT: Clsd UFN due to mud and slush.

TICONDEROGA ARPT: Clsd for duration winter season.

WARWICK MUN ARPT: Clsd until aprxly Jun 15 due to constrn. Locally based acft will be using limited portions of afld durg constrn.

WATERTOWN MUN ARPT: Rnwy 1–19 clsd to all operns UFN. Will not be maintained during winter months.

NORTH CAROLINA

CHARLOTTE, DOUGLAS MUN ARPT: Rnwy 18- clsd until aprxly May 1 due constrn.

ELIZABETH CITY MUN ARPT: Due to heavy VFI GCA tfc lndg rnwy 10 at the U.S. Coast Guard Stat- it is recommended that all tfc lndg at the Eliza- City Mun arpt contact Elizabeth City Coast Guard -a on 126.2 mc for tfc information. Acft without r.i enter 500′ pattern from the west.

FAYETTEVILLE, POPE AFB: Extensive operns 2,000′ MSL 1200–2200Z Mon thru Fri. Pilots of acft are advised that in an area from Lillington, N north along arwy V3E 6 NM to Chalybeate, N counterclockwise west 12 NM to Broadway, N.C., the SW 38 NM to Marston, N.C., thence E 26 NM to R fish, N.C., thence NE 27 NM back to Lillington: tensive training will be conducted W of V3E u heavy four engine transport and prop jet (C–12 C–130) acft, consisting of single, formation, and m ple formation flights. These acft oper 2,000′ and b under VFR conditions, conducting low level (30 to 2,000′ MSL) runs in the maneuvering area de above, for troop and cargo drops into R-5311. Sim operations are conducted in the vicinity of Ma AAF with drops at Mackall AAF.

NORTH DAKOTA

LANGDON MUN ARPT: Rnwy lgts inop UFN. U for skl acft only.

MOHALL ARPT: Lgtg facils inop until spring.

PEMBINA MUN ARPT: E/W rnwy clsd and con rnwy 14–32 until aprxly Jul 15, 1965.

OHIO

CINCINNATI: Moored mrkd balloon will be flow or ngt up to an alt 1500′ MSL. Site of operns 7½ NE Greater Cincinnati Arpt and 6½ mi W L Arpt. Balloon will be tethered aprxly ½ mi W Cincinnati Union Trml Bldg.

LAKE MILTON, KOASIS RESORT ARPT: Clsd u further notice.

RAVENNA ARSENAL (APCO): Ctld firing for de lition purposes, when wea permits, during re working hrs, Mon-Fri within the following a bounded on S by lat 41°11′30″, on N by lat 41°12 E long 81°04′22″; W long 81°06′14″. Demolition a ities in this area will go no higher than 500 and only when ceiling of 10,000′ or better and v mi or more. Notams regarding activities co will be filed with FSS Akron Mun Arpt (te STadium 4–1246).

TOLEDO MUN ARPT: Clsd Suns to all itinera btn 1400–2300 due to drag races all rnwys UFN.

OKLAHOMA

✓BARTLESVILLE RDO: H facility, ident: BV comsnd.

ENID: Mon-Fri during dalgt hrs, in addition to student jet operations being conducted with areas designated on charts, intsv VFR student is conducted from gnd to 10,000′ MSL within 5 radius of Vance AFB and Kegelman Auxiliary nmi NW of Vance AFB). These areas sho avoided. Recommended acft arriving and de Woodring Arpt in VFR condition utilize the fo routes. From the west, cross directly over the

Lahoma at 3500' MSL and maintain 3500' MSL via hiway until within a three nmi radius of Woodring Arpt before starting descent. Departing Woodring Arpt W bound, climb to 3500' MSL within 3 nmi radius of Woodring Arpt then proceed W bound over hiway until reaching the town of Lahoma maintaining 3500' MSL. To and from the S maintain 2300' MSL E of an extended N S line to a point abeam the town of Bison. To and from the N and E maintain 4000' MSL or below within 20 mi of Woodring Arpt. Low level jet navigation missions now being performed at 1000' to 1500' AGL at 300 knots along the following routes: Vance AFB; 8 nmi N of Fairview; Ft Supply; Darrouzett; Briscoe; Strong City; Bridgeport; Enid. Vance; 8 nmi N of Fairview; Knowles; Bucklin, Kans; Hazelton, Kans; South Haven, Kans; Enid. Vance; Clinton, Vichy, Medicine Lodge, Kans; Rago, Kans; Enid. Contact Vance Apch Control for tfc advisory 1200-2400 Mon-Frl on 121.3 or rcv on 122.5 mc.

MOORE, TWELFTH ST ARPK: 280' (1613' MSL) lgtd rdo antenna twr constrd 1 nmi E (090 T) at Lat 35°21'42" Long 97°27'51".

OKLAHOMA CITY, WILL ROGERS WORLD ARPT: New N/S rnwy under constrn 1 mi E of existing N S rnwy. Clsd to all operns.

STILLWATER RDO. About May 15, VOR will be comsnd. Ident: "SWO". Freq: 108.4 mc. Class: T-BVOR. Lctd at lat 36°13'15", long 97°01'42". Variation 9° E. Monitoring category 1. Controlled by Oklahoma City FSS.

STILLWATER, SEARCY FLD: Intermittent constrn in progress all rnwys until aprxly Aug 31, 1965.

TIPON MUN ARPT: N/S rnwy clsd until July 1, 1965 reconstrn turf rnwy.

YUKON, CIMARRON FLD: Use turf rnwy 17-35 only.

OREGON

The following arpts are clsd for an unknown duration, due to winter: **Beaver Marsh**; Stearns; Crescent Lake Flight Strip; Idanaha, Stayton; Lake of the Woods; Lapine; Pinehurst.

SPECIAL NOTICE: **Periodic AA firing (Warrenton Artillery Range), during dalgt hrs from surface to alt of 20,000' in area bounded by 46°12'N, 124°10' W thence 46°12'N, 123°59'20"W thence along a line one half mi E of shoreline to 46°02'N, 123°55'30"W thence 46°02'N, 124°10'W thence to point of beginning. Contact Portland or Hoquiam Rdo for actual firing dates.**

BURNS MUN ARPT: Rnwy lgts inop until further notice.

BROOKINGS, CRISSEY STATE LINE AIRSTRIP: Arpt clsd for unknown duration due damaged rnwy.

CAVE JUNCTION, SPORTSMENS RANCH ARPT: Clsd until further notice.

NORTH BEND ARPT: About 17 nmi N a moored aluminum colored balloon 92' long, approximately 40' diameter being used in logging operns during dalgt hrs, maximum alt 1000' MSL. During hrs darkness will be lowered to 100' AGL.

REDMOND RDO: LFR and Z mrkr decomsnd. Mar 4. RBn comsnd at LFR site class: H-SAB. Ident: RDM, freq 368 kc controlled by Redmond FSS.

UMPQUA RIVER, SCOTTSBURG TO REEDSPORT: River canyon crossed by 4 electric power lines. Twrs on both banks mrkd by red lgts. Easternmost crossing also mrkd with 20" orange aluminum balls spot lgtd from both sides of the river.

PENNSYLVANIA

The following awry lgt bcns will be decmsnd on or about April 29, 1965: Bald Eagle Mountain, Site Number 52 (C NY); Columbia Crossroads, Site Number 18 (CB-BC); Hecla Cap, Site Number 53 (C-NY); Laurelton, Site Number 55 (C NY); Ring Mountain, Site Number 60 (C NY); Shunk, Site Number 16 (CB-BC).

COUDERSPORT, POTATO CITY ARPT: Clsd winter months.

CULMERVILLE ARPT: Clsd to all transient acft until aprxly Jan. 1966 due to banner towing.

GETTYSBURG, ADAMS COUNTY ARPT: Arpt will be clsd intermittently until Apr 1 due to soft fld conditions.

GREENVILLE MUN ARPT: Clsd to wheeled acft

HANOVER, DEVENE RARPT: Arpt will be clsd until April 1, 1965 due to soft conditions and snow.

HAZELTON MUN ARPT: Until about Apr 30, rnwy 6-24 clsd due soft fld.

NEW ALEXANDRIA ARPT: Clsd until aprxly May 1, 1965.

PHILADELPHIA INTL ARPT: Excavation 1 to 3 ft deep, 100' long and 150' wide aprxly 30' from apch end rnwy 27. Ant structure aprxly 5' ht, 45' long, 217' from apch end rnwy 27 UFN.

PUNXSUTAWNEY MUN ARPT: Arpt clsd until further notice due to constrn.

WILKES-BARRE, WILKES-BARRE SCRANTON AIRPORT: During the period of the Wilkes-Barre VOR shutdown, the following missed apchs will be in effect: Proc. ILS-4, Amdt. 16, effec. 18 Apr. 1964. If visual ctc not established upon descent to authorized lndg minimums or if lndg not accomplished within 3.9 mi after passing Wilkes-Barre LOM or 8.5 mi after passing Crystal Lake RBn, climb to 3500' on crs 043° from the Wilkes-Barre LOM, turn left and proceed direct to Crystal Lake RBn, maintain 3500', hold SW one-minute left turns, inbnd crs 043°. ADF Proc. No. 1, Amdt. 5, effec. 18 Apr. 1964 If visual ctc not established upon descent to authorized lndg minimums or if lndg not accomplished within 3.9 miles after passing Wilkes-Barre LOM, climb to 3500' on crs 043° from the Wilkes-Barre LOM, turn left and proceed direct to Wilkes-Barre LOM, maintain 3500', hold SW, one-minute left turns, inbnd crs 043°. Radar Proc. No. 1, Amdt. 1, effec. 25 Aug. 1962: If visual ctc not established upon descent to authorized lndg minimums or if lndg not accomplished, make an immediate rgt climbing turn (Rnwy. 22) or left climbing turn (Rnwy. 10) so as to intercept a crs of 043° from the LOM, climb to 3500' on crs 043°, then make left turn, proceed direct to Wilkes-Barre LOM, maintain 3500', hold SW, one-minute left turns, inbnd crs 043°.

YORK ARPT: Beginning April 3, continuing through September 1965 drag racing conducted each Saturday 1500-2400 EST. Itinerant acft required Unicom (122.8 kc) rdo ctc for advice clear rnwy. Arpt clsd sundown until termination of races. Same conditions apply drag races all day and ngt July 17 and dalgt hrs July 18. Air Show all dalgt hrs June 20, 1965.

SOUTH CAROLINA

CHERAW MUN ARPT: Closed.

COLUMBIA ARPT: First 1000' rnwy 10 clsd during dalgt hrs due constrn

COLUMBIA, OWENS FLD: Clsd to all ngt transient operation.

LAKE CITY, BROWN ARPT: Rnwy 1–19 clsd until aprxly Apr 1 for resurfacing and extension on N end.

SOUTH DAKOTA

ESTELLINE ARPT: Clsd during winter months.

MOBRIDGE RDO: State owned and operd VOR operg 0700–1900, VFR use only. Class: L–VOR. Freq: 108.6, receivers 122.1. Ident: MBG. Lctd lat 45°33'07", long 100°21'56".

TENNESSEE

MURFREESBORO MUN ARPT: Glider towing and soaring activity conducted dalgt hrs at and in vcnty arpt.

NASHVILLE, CUMBERLAND FLD: Hvy equipment crossing S end rnwy dalgt hrs Mon-Sat noon.

TEXAS

AMARILLO: Controlled Firing Area lctd 10 mi NE of end of NE/SW rnwy of Amarillo AFB/Mun: Lat 35°-21'09", long 101°37'04" E to 35°21'12", 101°32'26", S to 35°17'56", 101°32'26" W to 35°17'56", 101°37'04", N to point of beginning. Time of Use: 24 hrs per day. Altitudes: up to 3552'.

BIG SPRING: Due intsv jet tfc at Webb operg Mon-Fri during dalgt hrs it is suggested all acft operg VFR remain at or above 9000' MSL when traversing area encompassed by 15 nmi arc of BGS VOR, excluding any overlap of V–66, including area W along V–16S to point 20 nmi SW of BGS VOR, and an extsn E to include area bounded N by S bndry of Trng Area Webb AFB/Reese Three, bounded S by N bndry of V–66, to N–S line drawn through town of Loraine, Tex. Concentrated jet trng within 10 nmi radius of Colorado City Aux Arpt lctd aprxly 38 nmi E Big Spring. VFR student jet tfc crossing airways within radius of 60 nmi BGS VOR utilizing appropriate VFR hemispherical crossing for tfc advisories.

BIG SPRING HAMILTON FLD: Caution, all alt 3,600' MSL and above intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600' MSL.

BIG SPRING HOWARD COUNTY ARPT. Caution, all alt 4,100' MSL and above, intensive jet tfc. T–37 tfc pattern alt at Webb AFB 3,600' MSL.

✓BROWNSVILLE, RIO GRANDE VALLEY INT'L ARPT: 200' (211.5' MSL) lgtd rdo twr constrd 4 nmi NE (034°T) at Lat 25°57'00" Long 97°23'00".

BROWNSVILLE, RIO GRANDE VALLEY INTL ARPT: Rnwy 13R–31L clsd except that lgt acft may be cleared to land on rnwy 13R.

CLEAR SPRING ARPT: Civil acft requiring use of this fld when military acft are in the tfc patn, should fly a rectangular patn with turns in the opposite direction from the military patn and rock wings on downwind. Patn should be flown at 1200' MSL until military tfc is clear. Use rnwys only for lndgs. Rnwy 13–31 clsd ufn.

DALLAS-HIGHLAND PARK ARPT: 110' of N end rnwy 17 will be removed due highway constrn. Usable portion will be marked by threshold line.

DALLAS, LOVE FLD: Two bldgs being erected 5 nmi SSE (144°T) at lat 32°47'00", long 96°47'50". Bldg A max tmpry hgt 661' (1115' MSL). Completed bldg will be 595.5'. (1039' MSL). Bldg B will reach max tmpry hgt 710' (1149' MSL). Completed bldg will be 609.5' (1049' MSL).

EDINBURGH MUN ARPT: Rnwys rough. Use Caution.

HONDO: Randolph AFB jet T-38 and T–33 acft will conduct acrobatic and transition flights within 15 nmi radius of Hondo. Intensive touch and go landing on Hondo rnwy 17 and 35. Operations will be conducted under VFR conditions during dalgt hrs Mon-Fri. Trng acft practicing touch and go lndgs cntld by RSU freq 295.0 call sign Cootie arriving and dptg acft equipped with this freq call Cootie RSU for info and request tfc patn be cleared. Other acft apch fld from the E and fly N to S or S to N over bldgs next to ramp at 600' above surface to signify intent to land. Do not enter tfc unless jets have cleared patn to orbit altitude. Jets will orbit at 3000' MSL when acft are arriving and departing. Jet arresting barriers installed on rnwy 17 and 35. Use caution when landing over up barrier. Barriers will be lowered when trng is not in progress. Non-scheduled dropping of personnel and equipment conducted from alt of 700' to 1000' above the surface on W side arpt Tues, Wed and Fri 1900–2300C and on Sat and Sun 1500–2100C.

HOUSTON INTERCONTINENTAL ARPT: New arpt under constr about 15 mi N. Clsd to all acft opers for unknown duration.

HOUSTON INTL ARPT: Inbnd flts ctc Houston apch ctl aprxly 25 mi out for lndg instructions. Acft flying to the arpt on hdg 189° thru 037° ctc Houston apch ctl on 119.1 or 379.1 mc. Acft flying to the arpt on heading 038–188° ctc HOU apch ctl on 118.1 or 307.1.

JOHNSON CITY ARPT TWR: Mobile twr utilizing freqs 236.6, 243.0, 126.2, 121.5 caretake status except as notamed weather and altimeter setting avbl when twr is in opern.

KILLEEN, HOOD AAF: A VFR Practice Instrument Apch Procedure has been published in a loose leaf format for use by USAF Training Command Pilots. Civil requests for this chart should be submitted to the Director, Coast and Geodetic Survey, Attn: Distribution Division, 14th and Constitution Avenue, Washington, D.C. 20230.

KILLEEN (FORT HOOD), ROBERT GRAY AAF. VOR Procedure No. 1. Original, efctv 15 Feb 1964 and ADF Procedure No. 1, Original, efctv 28 March 1964 are now in effect. Pending designation of controlled airspace, associated instrument approach procedures not entirely within controlled airspace. This NOTAM cancelled automatically on effective date of designation of controlled airspace for Robert Gray AAF.

KILLEEN MUN ARPT: Clsd for rebuilding until aprx May 15, 1965. Tmpry 1600' sod strip avbl for use during dalgt hrs when dry.

LAREDO: Instv VFR jet trng conducted in Laredo ctl zone and in area 5 mi either side of 068° rad Laredo VOR extending 20 mi eastward of stn. It is urged that all VFR operns (civil and mil) be conducted at or above 9000' MSL in this area. It this is not feasible, ctc Laredo AFB apch ctl on 126.2 mc or 122.5 mc; rcv on 126.2 or 118.5 mc for tfc advisory service. Acft operg VFR and off awys within a 50-nmi radius of Laredo. Use extreme caution due extsv jet trng.

✓LONE STAR STEEL COMPANY ARPT: Closed to public.

LUBBOCK MUN ARPT: N 400' rnwy 17L–35R clsd during constrn new E/W rnwy Usable lndg length both directions 3000'. Rnwy 12–30 clsd indefinitely.

MIDLAND AIR TRML: Webb AFB T-38 acft will be making practice ILS apchs to transition from Webb I Intensive student jet trng area to the Midland ILS, acft will report Webb 1 Intensive Student Jet Trng area northbound at 12,000' MSL descending to intercept W course of the Midland ILS lclzr. All transition and practice ILS apchs shall be during dalgt hrs in VFR conditions and only when Webb 1 Intensive Student Jet trng Area is in use.

✓RIO HONDO, NORMAN RANCH ARPT: Closed to public.

SAN ANTONIO, CAMP BULLIS: Controlled Firing Area as follows: A circular area 1¼ smi in radius centered at lat 29°42'00", long 98°33'50". Altitude: surface to 3000' MSL (1500' AGL). Time and use: 0830 to 1200 hrs lcl time, Fri of each wk for destruction of ammunition by detonation.

SAN ANTONIO, RANDOLPH AFB: Due to jet and conventional acft making GCA apchs suggest all acft operg VFR that will traverse area N of Randolph remain at least 10 nmi from the base and above 3000' MSL. Hvy conventional and jet instrument aerobatic and transition trng in SE quadrant btn V198 and V163 and V163W @ 10 nmi radius of Randolph Mon-Fri. VFR jet tfc will be crossing V163 and V163W S of the City of San Antonio at the appropriate hemispherical crossing altitudes en route to Hondo Mun Arpt. Hvy IFR VFR penetrations and apchs will be made from the La Vernia VOR to Randolph AFB. Should necessity dictate flight in the close proximity of Randolph AFB, aircraft should contact Randolph Tower on 126.2mcs for traffic advisories.

✓SAN MARCOS MUN ARPT: 324' (1011' MSL) lgtd rdo twr constd 4 nmi N (007 T) at Lat 29°53'32" Long 97°56'22". (existing height increase).

✓SPRING, SKYLINE ARPT: 210.5' (306.5' MSL) lgtd rdo twr constd 2.5 nmi S (180 T) at Lat 30°02'54" Long 95°25'54".

EMPLE, DRAUGHON-MILLER ARPT: Runway 11 29 clsd until further notice.

TYLER, POUNDS FLD: ILS-13, Amdt. 5, ILS 31, Amdt. 5 and ADF 1, Amdt. 5 are revised as follows effective immediately: Delete straight-in minimums.

UTAH

✓BRYCE CANYON ARPT: Rnwy 12-30 clsd UFN acct snow.

✓BRYCE CANYON, KANAB MUN ARPT: Rnwy lgts inoperative. Rotating beacon changed to white.

✓DELTA MUN ARPT: Clsd to all ngt operns 1800-0800 MST UFN.

✓DUCHESNE MUNARPT: No snow removal eqpmt or svc during winter months.

✓FLAMING GORGE DAM SITE: Cables and pwr lines suspended from 2 twrs on W side to one twr on E side of canyon across Green River aprxly 100' higher than canyon rim.

✓SALT LAKE CITY RDO: H facility ident SLC decomsnd.

✓SALT LAKE CITY RDO: Test in progress using the ARTCC area discrete frequency to extend VFR air ground coverage. VFR flights in the Salmon-Challis area when unable to contact a nearby FSS through normal channels may call Salmon Radio on 125.3 mc for flight assistance service. Salt Lake City FSS will reply on 125.3 mc from the air/ground site at 45°10'N, 114°02'W, elevation 9104' MSL. Further information is contained in a letter to Airmen being distributed in the area.

VERMONT

BARRE MONTPELIER ARPT: Rnwy 5-23 clsd until aprxly Apr 15, 1965.

BRISTOL, MUN ARPT: Open winters. N-S rnwy will be plowed.

NEWPORT MUN ARPT: Rnwy 5-23 clsd until about May 1, 1965 due snow.

RUTLAND MUN ARPT: Rnwy 13-31 clsd winters. Rnwy 1-19 has low spots and catch basins 10' in from sides until aprxly Apr 15, 1965.

VIRGINIA

DAHLGREN: Restricted Area R-6611, 6612, 6613 routine daily air and surface firing presents extreme hazard to acft all alts, SR-SS, Mon-Fri.

FT. BELVOIR, DAVISON AAF: Experiments being conducted in an area within a 1 mile radius of center point long. 77°08'16", lat 38°44'26". Rotary wing acft should avoid this area and fixed wing acft stay above 2000'. Extreme caution advised to all acft flying in area UFN.

FRONT ROYAL, STOKES FLD: Unattended until further notice.

MARTINSVILLE ARPT: Quarry, 7 mi NNW of arpt intermittent hvy blasting, dalgt hrs, hazardous to low flying acft.

RICHMOND, RICHARD E. BYRD FYLING FLD: Until about May 1, constr rnwy 15-33. Twr approval for use of rnwy 15-33 required at all times.

WASHINGTON

The following is a list of flds that are clsd November-May due to winter elements: Bandera Arpt; Easton Arpt; Emmaclaw, Ranger Creek Arpt; Laurier, Avery Arpt; Leavenworth, Lake Wenatchee Arpt; Lester Arpt; Oroville, Nighthawk Arpt; Packwood Arpt; Skykomish Arpt; Stehekin Airfld.

The following is a list of airports that are clsd until further notice (aprxly April or May): Davenport, La-Crosse Mun, Lind, Northport-Lowry Mun and Metaline Falls-Sullivan Lake USFS.

EVERETT, PAINE FLD: Twr unable to observe portion of rnwy 34 starting 1000' from approach end and extending for aprxly 2000' due to construction on fld UFN.

✓OLYMPIA MUN ARPT: Rnwy 13-31 permly clsd.

RENTON MUN ARPT TWR: Lgt gun signals not visible 195-300° at 1000' MSL beyond 2 mi.

SEATTLE: Hi alt jet route J96-505 from SEA VOR to Canadian boundary not usable due to lack of Nav guidance.

VANCOUVER, EVERGREEN FLD: Until aprxly May 4, constrn in progress dalgt hrs—rnwy surfacing on rgt side turf rnwy for first 1000' E of apch end rnwy and will be mrkd when work in progress.

✓WILBUR, KUNZ AIRSTRIP: Abandoned

WEST VIRGINIA

CLARKSBURG, BENEDUM ARPT: New rnwy 13-31 under constrn, unlgtd.

ELKINS, RANDOLPH COUNTY ARPT: Rnwy lgts (rnwy 13-31) inop indefinitely.

WISCONSIN

CHETEK MUN ARPT: All lndg area lgtg inop until aprxly Apr 15. Arpt open to ski equipped acft only.

CORNELL ARPT: Open to ski equipped acft only.

LAND O LAKES, KINGS LAND O LAKES MUN ARPT: Clsd winter months. Rnwy lgts on req (Phone 547-3777.)

MADISON, TRAUX FLD: Hi intensity rnwy lgts on rnwy 18-36 permly inop on Step 5.

MANITOWISH WATERS ARPT: Clsd winters. No fuel until spring.

MANITOWOC MUN ARPT: Rnwy 17-35 being extended to 5000'. Constrn in progress N end rnwy. Men and equipment in N apch area. Completion date expected about mid summer.

SHEBOYGAN COUNTY MEML ARPT: Rbn freq 254 kc Ident: SEM, no voice, operd by County: lctd on arpt

WEST SALEM, MAPLE GROVE ARPT: Clsd until April 15, 1965.

WYOMING

KREMMERER MUN ARPT: Clsd UFN due winter ski conditions.

LANDER, HUNT FLD: Bcn inop indefinitely.

ROCK SPRINGS MUN ARPT: Clsd to all ngt opns and during IFR wea pending reletn threshold lgts rnwy 7-25.

CHANGES/ADDITIONS TO AIM

PAGE 1–4

10. The list of airborne check points and ground check points is published in Section III. VOT's are included with the airport information in Section IV A.

December 1964

PAGE 1–5:

VOR Operational Limitations change to read:

OPERATIONAL LIMITATIONS VOR/VORTAC/TACAN

. The terms VOR, VORTAC, and TACAN are, operationally, general terms covering the VHF and UHF omnidirectional bearing type of facilities without regard to the fact that the power, the frequency protected area, the equipment configuration, and operational requirements may vary between the facilities at different locations.

. The table below lists the intended operational service volume or volumes of the various categories of VOR's, VORTAC'S, and TACAN's. Below 18,000 feet msl, the operational service volume of the H class facility has been limited to the L class service volume due to signal coverage characteristics of VHF and UHF facilities at the lower altitudes. T class facilities provide terminal service at locations where it is not practicable to provide L class frequency protection. Normal signal coverage and interference free service may be expected within the operational service volume unless specific facility restrictions have been imposed. Except along established airways or routes, use of these facilities for IFR operations outside of the operational service volume without additional flight inspection is not intended and may result in undependable or inadequate indications in the cockpit.

Class of VOR, ORTAC, or TACAN	Operational Service Volume
(Terminal)	25 nmi up to 12,000′ msl
(Low altitude)	40 nmi up to 18,000′ msl
(High altitude)	40 nmi up to 18,000′ msl 130 nmi from 18,000′ msl 45,000′ msl 100 nmi above 45,000′ msl

December 1964

GE 1–5:

Delete paragraphs 5 and 6 under Distance Measuring luipment (DME) and substitute the following:

Due to the limited number of available frequencies, assignment of frequency pairs has been required for certain military noncollocated VOR and TACAN facilities which serve the same area but which may be separated from a few to many miles. Additional frequency assignments have been made for remotely located military TACAN facilities which may be within reception range of a randomly paired ILS localizer. Selection of a DME channel while tuned to a randomly paired VOR or ILS frequency could result in the reception of distance information from a source which is remotely located from the VOR or ILS facility.

6. VOR/DME, VORTAC and ILS/DME facilities are readily identified by synchronized identifications which are transmitted on a time share basis. Identification of noncollocated VOR or ILS and TACAN facilities are not synchronized, resulting in intermixing and apparent distortion during TACAN identification whenever simultaneous aural monitoring of VOR or ILS and TACAN identification is attempted. DME equipment has been installed at only a few ILS locations and any DME presentation while using an ILS frequency which does not have an associated DME would be originating from a randomly paired remote location.

7. Aircraft receiving equipment which provides for automatic DME selection assures reception of azimuth and distance information from a common source whenever designated VOR/DME, VORTAC and ILS/DME navigation facilities are selected. Until further advised, pilots are cautioned to disregard any distance displays from automatically selected DME equipment whenever VOR or ILS facilities, which do not have the DME feature installed, are being used for position determination.

February 1965

PAGE 1–24:

Under TRANSCRIBED WEATHER BROADCASTS add:

3. Automatic transcribed broadcasts service is available on class H facilities designated as:

a. HSAB—A class H radio beacon required for IFR radio navigation and/or airtraffic control and for automatic transcribed weather broadcast service. This class facility will be depicted on radio facility, Sectional and WAC type charts.

b. SABH—A class H radio beacon having limited navigational use in that it is not flight inspected for IFR certification or primarily used for air traffic control. This aid will provide the automatic transcribed weather

broadcast service and will be depicted on Sectional and WAC type charts, only.

4. Operation of either type facility will be essentially the same. Both will have a code identification sent at frequency intervals keyed simultaneously with the voice signals. Although, not essential, it may be advantageous to listeners to equip their receivers with a 1020 cycle code rejection filter which, when switched to the "voice" position, will silence the keyed code identification signal.

5. The AB (automatic transcribed service) component of HSAB's and SABH's will operate continuously except during those periods when the transcription equipment is inoperative. During these periods manual broadcasts, scheduled (H+45 hourly) and non-scheduled will be made.

February 1965

PAGE I–36:

Under Vertigo, delete last sentence, "If the beacon etc".

December 1964

PAGE IV–42—Change as follows:

Second column, second entry under state of Idaho—move MACKAY 1 SE to page IV 45 second column 8th entry from bottom and substitute MACKAY 1 SE for AMERICAN FALLS, AMERICAN FALLS 2 NE. The latter moves to page IV 42 second column, second item under state of IDAHO.

January 1965

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION IV

AIRPORT DIRECTORY

DECEMBER 1964

53-036 O - 64 - IV 1

INTRODUCTION

Sections IV and IV–A—AIRPORT DIRECTORY

In Sections IV and IVA there are provided an Airport Directory, an Airport/Facility Directory, a tabulation of ARTCC communications frequencies, and a tabulation of Flight Service Stations.

Section IV contains the Airport Directory which is a listing of all known airports, heliports, and seaplane bases available for transient civil use within the conterminous United States and indicates those airport services and facilities available at each. Heliports and seaplane bases serve a select group of users and are, therefore, tabulated separately following the airport tabulation. Military airports and privately owned and operated airports closed to civil aviation are not listed.

Section IV–A contains an Airport/Facility Directory providing an integrated tabulation of major airports, heliports, and seaplane bases which have terminal navaids and communications facilities available at the field. This tabulation combines all facilities and services available at each airport (heliport or seaplane base) or terminal area into a single listing, thereby eliminating the need to consult multiple tabulations to obtain and assemble the various types of information pertinent to a given terminal area.

In both Sections IV and IV–A, airports are listed alphabetically by geographical location (city or town) within each state. Where city and airports names are identical, the airport name is omitted. Airport names are sequenced alphabetically at locations having two or more airports. Airport name different from the city or location name are cross-referenced within Section IV. All major airports in Section IV–A are listed by name in Section IV, with a cross reference to its tabular listing in Section IV–A. Airports with a published instrument approach procedure are identified as an IFR airport by the letters "IFR" positioned immediately following the name.

Thus in Section IV, all airports within a given geographical location (city) area are listed under the city name. For example, under Cleveland would be listed Burke Lakefront, Cleveland-Hopkins, and Cuyahoga Co. airports. These airports would also be listed alphabetically by name with a cross reference to the city-name tabulation (Cleveland in this case), making it possible to locate any airport whether or not the related city name is known.

The format of the Airport/Facility Directory in Section IV–A provides a grouping of airport data and services, and terminal navaid and communications facilities, each followed by pertinent remarks. Terminal navaid and communications facilities are tabulated in Section IV–A only.

Airports listed in Section IV having terminal navaid communications services available that are provided remotely from another (different name) facility, are cross-referenced to the different name airport in Section IV–A. The voice call and frequencies of the navaid and communications services provided civil airports by a military facility are listed under the airport receiving the service in both Sections IV and IV–A.

Radar and non-radar communications services (approach, departure and advisory) are tabulated separately. Those services utilizing radar are listed under the head of "RADAR SERVICES". The letters "BCN" are shown following "RADAR SERVICES", when a transponder beacon is operated by the airport. All communications services provided by a military facility are radar monitored.

Civil Use of Military Fields

U.S. Air Force, Navy, and Coast Guard Fields are open to civil fliers only in emergency or with prior permission; Army Air Fields are open to civil aircraft on authorization of the Air Field Commander.

For Air Force installations, prior permission should be requested at least 30 days prior to the first intended landing from Headquarters USAF (AFOAPDA) via the Commanding Officer of the field concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (AFOAPDA), Washington, D.C 20330.

For Naval installations, prior premission should be requested from the Chief of Naval Operations (OP 532) via the Commanding Officer of the field concerned (who has the authority to approve landing rights for certain categories of civil aircraft).

For Coast Guard fields, prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

With minor exceptions, authority to use Air Force and Navy fields is granted only to aircraft on government business, or when no suitable civil airport is available in the vicinity. Use of Coast Guard fields is limited to persons on government business only when there is no suitable civil airport in the vicinity.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

Heavy Traffic Around Military Fields

Pilots are advised to exercise vigilance when in close proximity to most military airports. These airfields have an unusually heavy concentration of jet aircraft operating with 5-to-25 nautical mile radius and from surface to all altitudes. This precautionary note also applies to the larger civil airports. BE ALERT, STAY ALIVE.

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HELIPORT DIRECTORY IV-231

AIRPORT/FACILITY DIRECTORY LEGEND

LOCATION

The airport location is given in nautical miles (to the arest mile) and direction from center of referenced y. This is followed by the bearing and distance from principal NAVAID within 25 nautical miles of the port. The distance is not specified if less than half le from the field.

ELEVATION

Elevation is given in feet above mean sea level and based on highest usable portion of the landing area. en elevation is sea level, elevation will be indicated "00." When elevation is below sea level, a minus n (−) will precede the figure.

RUNWAYS

The runway surface, length, reciprocal headings, and ght bearing capacity are listed for the longest instrut runway or sealane, or the longest active landing tion of the runway or strip, given to the nearest dred feet, using 70 feet as the division point, i.e., 8 feet would be shown as "14"; 1474 feet would be wn as "15." Runway lengths prefixed by the letter ' indicates that runways are hard surfaced (conte: asphalt; bitumen, or macadam with a seal coat). the runway length is not prefixed, the surface is sod, r, etc. The total number of runways available is wn in parenthesis.

RUNWAY WEIGHT BEARING CAPACITY

dd 000 to figure following S, T, TT and MAX for s weight capacity, e.g., (S–000).

-Runway weight bearing capacity for aircraft with single-wheel type landing gear. (DC–3), etc.

-Runway weight bearing capacity for aircraft with twin-wheel type landing gear. (DC–6), etc.

T-Runway weight bearing capacity for aircraft with twin-tandem type landing gear. (707), etc.

uadricycle and twin-tandem are considered virtually al for runway weight bearing considerations, as are gle-tandem and twin-wheel.

blank space following the letter designation is used ndicate the runway weight bearing capacity to sus- aircraft with the same type landing gear, although nite figures are not available, e.g., (T–).

AX-Maximum runway gross weight bearing capacity for all aircraft.

mission of weight bearing capacity indicates inform- n unknown. Footnote remarks are used to indicate nway with a weight bearing greater than the longest way.

SEAPLANE BASE FACILITIES

A number preceding the parenthetical designation, indicates the number (quantity) available.

Beaching gear, consisting of the quantity and type of beaching gear available.

The number (quantity) if available, of Mooring Buoys (MB) and Crash Boats (CB) available. MB & CB indicates details of quantity are not available.

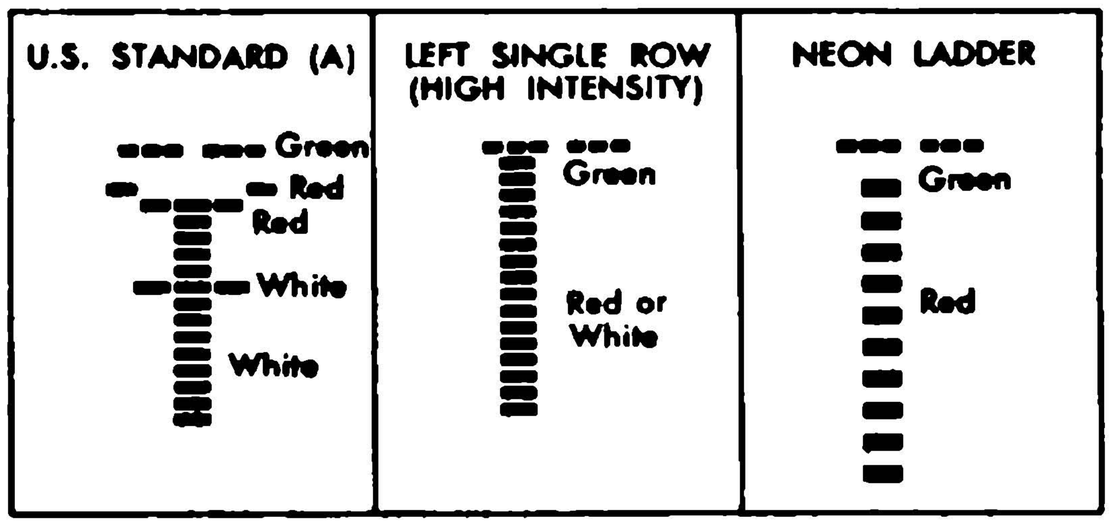
LIGHTING

B: Rotating Light (Rotating beacon). (Green and white, split-beam and other types.) Omission of **B** indicates rotating light is either not available or not operating standard hours (sunset-sunrise).

NOTE. - Code lights are not codified, and are carried in Remarks.

L: Field Lighting (when code **L4–7** is indicated, lighting **4, 5, 6, 7** is available). An asterisk (*) preceding an element indicates that it operates on prior request only (by phone call, telegram or letter). Where the asterisk is not shown, the lights are in operation or available sunset to sunrise or by request (circling the field or radio call). **L** by itself indicates temporary lighting, such as flares, smudge pots, lanterns.

1—Strip lights or portable runway lights (electrical)
2—Boundary
3—Runway Floods
4—Low Intensity Runway
5—Medium Intensity Runway
6—High Intensity Runway
7—Instrument Approach (neon)
8A, B, or C—High Intensity Instrument Approach



9—Sequence Flashing Lights (3,000' out unless otherwise stated)
10—Visual Approach Slope Indicator (VASI)
11—Runway end identification lights (threshold strobe) (REIL)
12—Short approach light systems (SALS)

Lighting (Con't)

13—Runway alignment lights (RAIL)
14—Runway centerline
15—Touchdown zone

Because the obstructions on virtually all lighted fields are lighted, obstruction lights have not been included in the codification.

SERVICING

S1: Storage.
S2: Storage, minor airframe repairs.
S3: Storage, minor airframe and minor powerplant repairs.
S4: Storage, major airframe and minor powerplant repairs.
S5: Storage, major airframe and major powerplant repairs.

FUEL

F1 80 oct., at least.
F2 80/87 oct., or lower.
F3 91/96 oct., or lower.
F4 100/130 performance rating, or lower.
F5 115/145 performance rating, or lower.
F10 Helicopter.

TURBINE FUELS

TP–1 650 turbine fuels for civil jets.
JP–1 (Kerosene), JP–3, JP–4, JP–5.

OTHER

AOE—Airport of Entry.
VASI—Visual Approach Slope Indicator, applicable runway provided.
RVV—Runway visibility, applicable runway provided.
RVR—Runway Visual Range, applicable runway provided.
TPA—Traffic Pattern Altitude—This information is provided only at those airports without a 24–hour operating control tower or without an FSS providing Airport Advisory Service. Directions of turns are indicated only when turns of the pattern(s) are to the right (non-standard). TPA data is related to the runway listed under the tabulated airport information. Generally, only one altitude is listed; however, at some airports two altitudes have been established; one for conventional aircraft and one for high performance aircraft. They are shown in this manner, TPA 8/15–R (increments of 100 feet). The higher figure being the higher performance aircraft altitude.
FSS—The name of the controlling FSS is shown in all instances. When the FSS is located on the named airport, "on fld" is shown following the FSS name. When the FSS can be called through the local telephone exchange, (Foreign Exchange) at the cost of a local call, it is indicated by "(LC)" (local call) with the phone number immediately following the name of the FSS, i.e., "FSS: WICHITA (LC481–5867)." When an Intephone line exists between the field and the FSS, it is indicated by "(DL)" (direct line) immediately following the name of the FSS, i.e., "FSS: OTTO (DL)."

AIRPORT REMARKS

"FEE" indicates landing charges for private or non revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

"Rgt tfc 13–31" indicates right turns should be made on landings and takeoffs on runways 13 and 31.

Limited—intended for private use, but use by public not prohibited.

Remarks data is confined to operational items affecting the status and usability of the airport, traffic patterns and departure procedures.

Obstructions.—Because of space limitations only the more dangerous obstructions are indicated. Natural obstructions, such as trees, clearly discernible for contact operations, are frequently omitted. On the other hand, all pole lines within at least 15:1 glide angle are indicated.

COMMUNICATIONS

Clearance is required prior to taxiing on a runway, taking off, or landing at a tower controlled airport.

When operating at an airport where the control tower is operated by the U.S. Government, two-way radio communication is required unless otherwise authorized by the tower. (When the tower is operated by someone other than the U.S. Government, two-way radio communication is required if the aircraft has the necessary equipment.)

When operating at an airport which is not tower controlled but at which a Flight Service Station (FSS) is located, two-way radio communication with the FSS is required when the aircraft has the necessary radio equipment. If the aircraft has receiver only, the pilot must maintain a listening watch on the appropriate frequency. These requirements are for the purpose of receiving Airport Advisory Service (AAS) and are in effect only when AAS is indicated on the current Sectional Chart and En Route Chart.

Frequencies transmit and receive unless specified as T—Transmit only, R—Receive only, X—On request. Primary frequencies are listed first in each frequency grouping, i.e., VHF, LF. Emergency frequency 121.5 is available at all TOWER, APPROACH CONTROL and RADAR facilities, unless indicated otherwise by a circle out: 121.5

Radar available is listed under "RADAR SERVICE". Radar beacons are indicated by "(BCN)" after "RADAR SERVICES", when available.

VOICE CALL

The voice call for contact with the traffic control services listed at each airport is the airport name followed by the call of the particular service desired. i.e., "LAGUARDIA TOWER." In these instances, only the name of the service is listed. When the voice call of the facility is not the same as the airport name, the complete voice call is listed.

SERVICES AVAILABLE

(See ATC Operations and Procedures, Section II)

WEB

Clearance Delivery (CLRNC DEL).
Approach Control (APP CON) Radar and Non-Radar.
Departure Control (DEP CON) Radar and Non-Radar.
VFR Advisory Service (VFR ADV) Non-Radar.
Traffic Information Service (TFC INFO) Radar.
Surveillance Radar Approach (ASR).
Precision Radar Approach (PAR).
Ground Control (GND CON).
VHF Direction Finding (VHF/DF).

FLIGHT SERVICE STATION (FSS)

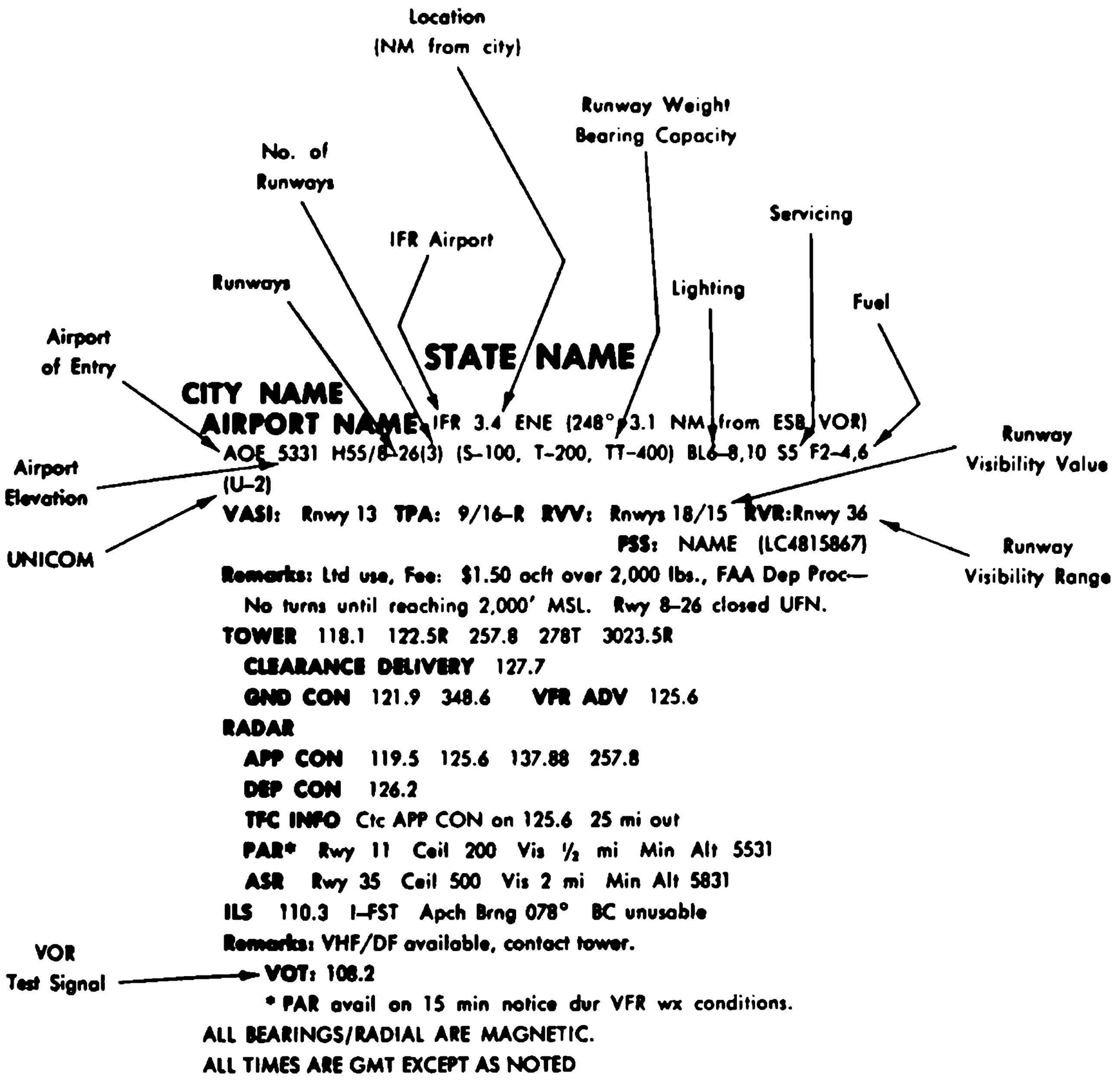
Airport Advisory Service (AAS).
Flight Following Service.
Island, Mountain and Lake Reporting Service.

UNICOM

Private aeronautical station, operates same hours as the airport, transmits and receives on one of the following frequencies:

U–1—122.8 mc (at airports without a control tower).
U–2—123.0 mc (at airports with a control tower).
tower).

SAMPLE



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te name headings were inadvertently omitted from the Airport Directory, but will be included in the next edition. s index is provided as a temporary measure to help locate the appropriate areas.

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AIRPORT DIRECTORY

ALABAMA

3BEVILLE MUNI 2 N
350 H30 (1) L4 FSS: DOTHAN

.BERTVILLE MUNI 3 SW
1030 H35 (1) BL4 S3 F4 U-1 FSS: BIRMINGHAM

ICEVILLE
DOWNER MUNI 3 SW
149 H35 (1) L4 F4 FSS: TUSCALOOSA

DALUSIA MUNI 5 E
330 H37 (1) L4 F4 FSS: CRESTVIEW

NISTON
ANNISTON MUNI *IFR* 4 S
611 H50 (1) BL4 S5 F4 U-1 FSS: ANNISTON on Fld
REMARKS: Rgt tfc NE

.EE BROS 3 SE
683 H22 (1) L4 S1 F4 U-1 FSS: ANNISTON (LC 831-2303)

MORE MUNI 3 E
284 H38 (1) BL4 F4 U-1 FSS: MOBILE

BURN-OPELIKA *IFR* 2 E
774 H40 (2) BL4 S5 F4 U-1 FSS: MONTGOMERY
REMARKS: 5050' strip available

CHELOR FLD See CANOE

(ER'S SKYTEL See DOTHAN

EXANDER CITY
USSEL FLD 1 S
685 H35 (1) BL4 S5 F4 U-1 FSS: MONTGOMERY
REMARKS: Threshold displaced 620' rnwy 18. E-W strip avail 3200'.

ES FLD See MOBILE in Section IV-A

' MINETTE MUNI 3 SW
270 H37 (1) L4 F4 FSS: MOBILE
REMARKS: Irregularly attended days.

OU LA BATRE
AY VIEW 7 E
14 33 (1)

CHWOOD See HAYNEVILLE

CHER See CENTREVILLE

SEMER 3 SW
530 H30 (1) S5 F4 U-1 FSS: BIRMINGHAM (LC 595-6151)
REMARKS: Rgt tfc NNE.

B CO See CENTERVILLE

MINGHAM MUNI See Section IV-A

BLACKWELL FLD See OZARK

BOYKIN FLD See DEMOPOLIS

BRANTLY MUNI 2 NE
300 32 (1) FSS: DOTHAN

BREWTON MUNI 3 S
92 H40 (3) FSS: MOBILE

BRUNDIDGE MUNI 1 NE
476 30 (1) L4 F2 FSS: DOTHAN
REMARKS: Unattended.

BUTLER
OWEN 2 W
260 21 FSS: MERIDIAN

CAMDEN
DEAN TAIT 4 NW
175 28 (1) S3 F2 FSS: MONTGOMERY

CANOE
BACHELOR FLD SW
288 16 (1) F2 FSS: MOBILE
Remarks: Ant N. P-line N, fence S.

CATHERINE
MARTIN FLD 2 SE
180 26 (1) *L4 S1 F2 FSS: MONTGOMERY
REMARKS: Irregularly attended.

CENTRE
CENTRE 1 N
581 23 (1) S3 FSS: ANNISTON

CENTRE MUNI 2 E
630 H34 (1) BL4

CENTREVILLE
BELCHER 1 SW
250 22 (1) F2 FSS: TUSCALOOSA
REMARKS: Unattended.

BIBB CO 3 E
250 H31 (1) L4

CLANTON
GRAGG FLD 2 NE
593 H40 (1) BL2, 4 S5 F4 FSS: MONTGOMERY

COURTLAND AIRFLD 2 W
588 H50 (4) FSS: MUSCLE SHOALS

CULLMAN
FOLSOM FLD 6 N
960 H45 (2) BL4 S3 F4 U-1 FSS: BIRMINGHAM

DANNELLY FLD See MONTGOMERY in Section IV-A

DANVILLE 2 W
645 26 (2)
REMARKS: Soft when wet.

AIRPORT DIRECTORY

DEAN TAIT See **CAMDEN**

DECATUR
PRYOR FLD *IFR* 4 NW
591 H51 (1) BL4 S5 F4 U-1
FSS: MUSCLE SHOALS (LC EL 3-4627)
VFR ADV For APP CON see HUNTSVILLE/HUNTSVILLE-MADISON CO. in Section IV-A.
REMARKS: Attended days.

DEMOPOLIS
BOYKIN FLD 7 SW
112 H50 (3) L4 S3 F4 U-1 FSS: MERIDIAN

DOTHAN
BAKER'S SKYTEL 3 SE
330 25 (1) FSS: DOTHAN (LC 794-6683)
REMARKS: Soft when wet.

DOTHAN MUNI *IFR* 3 NW
330 H40 (3) BL4 S5 F4 U-1 FSS: DOTHAN on Fld
VFR ADV Cairns APP CON 125.4 (E) 122.5 (R)
DEP CON 125.4
REMARKS: Fee for non-sked acft over 12,500 lbs.

NAPIER FLD 7 NW
397 H50 (3) BL6 S5 U-1

DOWNER See **ALICEVILLE**

DUTTON
GRIFFITH HEREFORD FARMS 3 NE
1350 20 (1)

ELBA MUNI 1 W
265 H30 (2) B*L4 F2 FSS: DOTHAN
REMARKS: Rnwy lgts prior request thru Police Dept.

ELMORE FLD See **WETUMPKA**

ENTERPRISE MUNI 3 W
361 37 (2) FSS: DOTHAN
REMARKS: P-line NE. Rough. Rgt tfc rnwy 22, 26.

EUFAULA
WEEDON FLD 4 NE
275 H35 (1) BL4 F4 FSS: DOTHAN
REMARKS: E/W rnwy clsd, not marked.

EUTAW MUNI 2 SE
160 H30 (1) FSS: TUSCALOOSA

EVERGREEN
MIDDLETON FLD 5 SW
258 H40 (2) BL4 FSS: MOBILE

FAIRHOPE MUNI 3 SE
92 H32 (1) BL4 U-1 FSS: MOBILE (LC 342-1177)

FAYETTE MUNI 2 NE
364 H34 (2) *L4 F2 FSS: TUSCALOOSA
REMARKS: E/W apchs are hazardous for ngt lndgs, due low mtns. Attended or request.

FLOMATION 2 NE
230 20 (1)

FLORENCE
MUSCLE SHOALS SKYPARK-HARBOR 5 NE
579 20 (2) FSS: MUSCLE SHOALS (LC 383-654

FOLEY
FT MORGAN Adj E
10 H25 (1) FSS: MOBILE
REMARKS: Bldgs, P-line W.

REIMER FLD 1 NE
82 21 (1) FSS: MOBILE
REMARKS: 80 oct fuel only.

FOLSOM FLD See **CULLMAN**

FT MORGAN See **FOLEY**

FT PAYNE
ISBELL FLD 2 N
876 H33 (1) L4 S3 F2 FSS: ANNISTON
REMARKS: P-line S. Attended days.

JENNINGS 4 SE
1400 24 (2) FSS: ANNISTON

FRANKLIN See **UNION SPRINGS**

FULLER FLD See **SUTTLE**

AIM – DECEMBER 10, 1964

GADSDEN MUNI *IFR* 4 SW
564 H48 (2) BL4 S5 F4 U-1 FSS: ANNISTON
VFR ADV For APP CON, DEP CON see BIRMINGHAM/MUNI in Section IV-A.

GENEVA MUNI 1 N
101 H27 (1) *L4 F2 — FSS: DOTHAN
Remarks: Rnwy lgts prior req thru Police Dept.

GRAGG FLD See **CLANTON**

GREENSBORO MUNI 3 SW
173 H35 (1)

GREENVILLE MUNI 1 NE
443 H30 (1) BL4 S5 F4 FSS: MONTGOMERY

GRIFFITH HEREFORD FARMS See **DUTTON**

GROVE HILL MUNI 1 SE
478 H22 (1) F4 FSS: MOBILE

GUNTHERSVILLE MUNI 3 NE
613 H30 (1) L4 S5 F4 FSS: BIRMINGHAM
Remarks: Paved drag strip 200' E of rnwy.

HALEYVILLE MUNI 3 NE
925 H30 (1) L4 FSS: MUSCLE SHOLS

HAMILTON
MARION CO 1 SW
460 H60 (1) L4 S3 F4 FSS: MUSCLE SHOALS

AIRPORT DIRECTORY

AYNEVILLE
BEECHWOOD 5 SW
250 18 (1) FSS: MONTGOMERY
Remarks: Soft when wet.

EADLAND MUNI 2 NE
361 35 (1) *L4 S3 F2 FSS: DOTHAN
Remarks: Attended days. P-line N, S.

EFLIN MUNI 3 S
900 32 (1) FSS: ANNISTON
Remarks: Soft when wet.

NTSVILLE-MADISON CO see Section IV-A

BELL FLD See FT PAYNE

SPER
VALKER COUNTY 2 NE
496 H37 (1) L4 S1 F4 U-1 FSS: BIRMINGHAM
Remarks: P-line NW.

NNINGS See FT PAYNE

NETT
LANETT MUNI 4 SW
625 H31 (1) BL4 S5 F4 U-1 FSS: ANNISTON
Remarks: W 2800' rnwy 11-29 lgtd.

VALLEY 2 SE
564 H31 (1) L4 S5 F4 FSS: ANNISTON
Remarks: Drag races conducted Sun btn 1200-1800 est. vehicles removed from fld during tkoffs and lndgs.

RUE FLD See SUMMERDALE

E BROS See ANNISTON

E MERKEL See SYLACAUGA

ROY
cKEE FLD 1 S
155 20 (1)

VERNE MUNI 1 N
310 H30 (1) L4

RION
ERRY CO 4 SE
234 H30 (1) L4 F4 FSS: TUSCALOOSA
Remarks: Irregularly attended.

RION CO See HAMILTON

RTIN FLD See CATHERINE

EE FLD See LEROY

INN See WEAVER

DLETON FLD See EVERGREEN

BILE BATES FLD See Section IV-A

MONTGOMERY DANNELLY FLD See Section IV-A

MOTON FLD See TUSKEGEE

MUSCLE SHOALS
MUSCLE SHOALS *IFR* 4 E
548 H49 (3) BL4 S3 F4, JP1 U-1 FSS: MUSCLE SHOALS on Fld

SKYPARK-HARBOR See FLORENCE

NAPIER FLD See DOTHAN

ONEONTA MUNI 5 NE
1140 H33 (1) L4 S3 F2 U-1 FSS: BIRMINGHAM

OPELIKA See AUBURN

OWEN See BUTLER

OZARK
BLACKWELL FLD 2 SE
358 H38 (1) L4 F4 U-1 FSS: DOTHAN
Remarks: Unlgtd. P-line and poles aprxly 1212' from end of rnwy 12.

PERRY CO See MARION

PRYOR FLD See DECATUR

RED BAY MUNI NW
620 H23 (1) F2 FSS: MUSCLE SHOAL
Remarks: Unattended

REIMER FLD See FOLEY

ROANOKE MUNI 2 S
907 H21 (1) FSS: ANNISTON

RUSSEL FLD See ALEXANDER CITY

RUSSELLVILLE
WOOD-DEARING FLD 3 E
762 23 (1) FSS: MUSCLE SHOALS

ST ELMO 1 W
130 50 (1) S1 F2 FSS: MOBILE
Remarks: Irregularly attended.

SCOTTSBORO MUNI 2 NE
650 H31 (1)

SELFIELD See SELMA

SELMA
SELFIELD *IFR* 4 NE
136 H58 (2) F2 U-1 FSS: MONTGOMERY
Remarks: J-bar each end rnwy 12-30. Extsy mil trng 1230-0600Z Mon-Fri clsd civil acft without rdo during mil use. Irregularly attended.

SKYHARBOR 5 SW
125 25 (2) L4 S5 F4 U-1 FSS: MONTGOMERY

AIRPORT DIRECTORY

SHARPE FLD See TUSKEGEE

SUMMERDALE
LaRUE FLD 1 SE
120 16 (1) S1 F2 FSS: MOBILE
Remarks: P-line E.

SUTTLE
FULLER FLD 2 NW
152 22 (1) L4 F4 FSS: MONTGOMERY
Remarks: P-line S.

SYLACAUGA
LEE MERKEL 3 W
565 H31 (1) L4 FSS: BIRMINGHAM

SKYHARBOR See SELMA

TALLADEGA MUNI 8 NE
527 H53 (2) L4 S5 F4 U-1
FSS: ANNISTON (LC 831-2303)

TALLASSEE MUNI 3 S
200 H31 (1) L4 FSS: MONTGOMERY
Remarks: P-line W.

TRI CITIES See TUSCUMBIA

TROY MUNI 4 NW
393 H50 (3) BL4 S5 F4 U-1 FSS: MONTGOMERY

TUSCALOOSA
VAN DE GRAAFF *IFR* 3 NW
169 H40 (1) BL4 S5 F4 U-1 FSS: TUSCALOOSA on Fld
VFR ADV For APP CON see BIRMINGHAM/MUNI in Section IV-A.

TUSCUMBIA
TRI CITIES 1 S
498 26 (1) FSS: MUSCLE SHOALS (LC 383-6541)
Remarks: P-line N.

TUSKEGEE
MOTON FLD 2 N
270 26 (2) FSS: MONTGOMERY
Remarks: Unattended.

SHARPE FLD 6 NW
253 H50 (1) F2 FSS: MONTGOMERY
Remarks: Attended days.

UNION SPRINGS
FRANKLIN 5 W
290 H27 (1) FSS: MONTGOMERY

UNIONTOWN MUNI 1 SE
210 H30 (1) FSS: TUSCALOOSA

VALLEY See LANETT

WALKER COUNTY See JASPER

WEAVER
McMINN 1 SW
680 22 (1)

WEEDON FLD See EUFAULA

WETUMPKA
ELMORE FLD 6 W
196 H30 (1) *L4 S5 F4 U-1
FSS: MONTGOMERY (LC 269-4368)
Remarks: P-line S.

WOOD-DEARING FLD See RUSSELLVILLE

YORK MALLARD MUNI 1 E
240 H32 (1) BL4 S1
Remarks: Soft when wet. Irregularly attended.

ARIZONA

AGUILA
AGUILA FARMS 2 N
2204 44 (1) FSS: PHOENIX
REMARKS: Unattended. Livestock on strip.

AMBROSIA 2 S
2159 32 (1) FSS: PHOENIX
REMARKS: Not mntnd. Livestock and autos. Use at own risk.

AJO MUNI 5 N
1458 H63 (3) L4 S1 F2 FSS: PHOENIX
REMARKS: Unattended. 80/87 Fuel avbl by phone call.

AMBROSIA See AGUILA

ANGEL FLD See FT GRANT

ANTELOPE RANCH See ROLL

ARIZONA STATE See VALLE

BAGDAD 2 NE
4136 28 (1) B*L4 FSS: PRESCOTT
REMARKS: Use with caution - unusual air currents. 80/87 Fuel avbl emgcy. Unattended. Water for livestock.

BENSON 2 E
3610 48 (3) FSS: TUCSON
REMARKS: Unattended.

BIRCH MESA See PAYSON

BISBEE
BISBEE MUNI 5 SE
4780 39 (3) *L4 F2 FSS: DOUGLAS

DOUGLAS INTL See DOUGLAS-BISBEE

BONITA
EUREKA RANCH 10 NW
4190 35 (1)

BOUSE
UTTING SIDING 9 SE
1137 21 (1) F2

BOWIE 1 NE
3750 39 (1)
REMARKS: P-line S. Vehicles on rnwy.

BROAD A AIRSTRIP See YOUNG

AIRPORT DIRECTORY

UCKEYE
BUCKEYE MUNI 6 NW
1024 H38 (3) FSS: PHOENIX
Remarks: Hvy low jet tfc in area.

BUCKEYE-STEPHENS Adj W
890 26 (1) S3 FSS: PHOENIX

JLLHEAD CITY 1 N
550 41 (1) L4 F4 FSS: NEEDLES, CAL.

AMERON 2 NE
4200 40 (3) FSS: PRESCOTT
REMARKS: Unattended. Circle town for service. 80 87 Fuel emgcy only. Livestock on rnwy.

AMP VERDE 1 SE
3175 40 (1) FSS: PRESCOTT
REMARKS: Livestock and vehicles on rnwy.

AREFREE 1 E
2600 40 (1) BL4 F4 U-1 FSS: PHOENIX
REMARKS: Rgt tfc rnwy 6. P-line SW.

ASA GRANDE
CASA GRANDE MUNI 4 NW
1462 H38 (4) BL4 S3 F4 FSS: PHOENIX
REMARKS: P-line S, E.

THREE POINT 1 NW
1389 38 (2) L4 S5 F4 U-1 FSS: PHOENIX
REMARKS: Control 2400' N/S rnwy lgtd until 0100, thereafter on prior req.

ANDLER
CHANDLER MUNI 3 SE
1235 H26 (1) BL4 S5 F4 FSS: PHOENIX (LC 261-4295)

IGGS 5 SE
1268 20 (1) FSS: PHOENIX
REMARKS: P-line E. Helicopter tfc.

NLE Adj W
5515 50 (1)
REMARKS: P-line N.

FF DWELLERS LODGE See MARBLE CANYON

FTON-MORENCI-GREENLEE COUNTY 7 SE
3811 H49 (1) *L4 FSS: DOUGLAS
REMARKS: P-line E. Unattended.

HISE CO See WILCOX

PRESSOR STATION See TUCSON

LIDGE
OOLIDGE-FLORENCE MUNI 5 SE
1587 H55 (4) S5 U-1 FSS: PHOENIX

OOLIDGE MUNI 1 SW
1402 H21 (1) FSS: PHOENIX

RITA 3 SE
1468 20 (1) F2 FSS: PHOENIX
REMARKS: P-line E. 950' overrun SE end.

CORDES Adj NE
3810 17 (1)
REMARKS: Livestock and vehicles on rnwy.

COTTONWOOD-CLEMENCEAU 1 SW
3558 H36 (1) F4 FSS: PRESCOTT

DAVIS DAM
SEARCHLIGHT FERRY 18 N
680 30 (1)

DEER VALLEY See PHOENIX

DOUGLAS
DOUGLAS MUNI 2 E
4181 53 (4) L4 S5 F4 FSS: DOUGLAS (LC EM 4-5353)
REMARKS: Rnwy lgts on center 2000' of N/S rnwy. P-line W.

PUERTO CIELO 4 NW
3975 19 (1) FSS: DOUGLAS (LC EM 4-5353)

BISBEE-DOUGLAS-INTL *IFR* 8 NW AOE
4158 H75 (4) BL4 S5 F5 TPA: 1000' AGL
FSS: DOUGLAS on Fld
REMARKS: Inner dual rnwys clsd. Rnwys 12-30 and 3-21 unavbl for acft heavier than 12,500 lbs.

DOWNTOWN TUCSON See TUCSON

DUNCAN MUNI 2 SW
3878 23 (2)
REMARKS: Use ctr of strips; washout NE end NE SW strip.

ED'S FLD See PICACHO

ELOY Y STRIP 1 SE
1585 24 (2) L F4 FSS: PHOENIX
REMARKS: P-line S and SW. 30' obstn N side SW end. Unattended.

EUREKA RANCH See BONITA

FALCON FLD See MESA

FLAGSTAFF
PULLIAM 4 S
7012 H70 (1) BL4 S5 F4 U-1 FSS: PRESCOTT

FLYING E RANCH See WICKENBURG

FT. GRANT
ANGEL FLD 4 S
4775 29 (3) FSS: TUCSON

FRAM See GLENDALE

FREDONIA Adj NE
4750 32 (1) S5 FSS: BRYCE CANYON, UTAH

FREEWAY See TUCSON

GANADO 2 E
6700 48 (1)
Remarks: Hazardous spots.

AIRPORT DIRECTORY

GILA BEND 2 SE
800 32 (2) L4 S3 F4 FSS: PHOENIX (LC 261-4295)

GLEN CANYON See PAGE

GLENDALE
FRAM 4 W
1060 22 (1) FSS: PHOENIX
REMARKS: P-lines E. W. Irreg attended.

GLOBE MUNI 7 SE
3193 49 (1) L4 S5 F4 FSS: PHOENIX
REMARKS: Fuel on call.

GOMEZ See PHOENIX

GRAND CANYON 12 S
6400 91 (4) S4 F4 U-1 FSS: PRESCOTT
REMARKS: Turf unusable when wet. Clsd 1 Nov-1 Apr.

GRAND CANYON CAVERNS See PEACH SPRINGS

GRAPEVINE See ROOSEVELT

GRAY MOUNTAIN Adj W
5040 30 (1) F2 FSS: PRESCOTT
REMARKS: Soft when wet. Livestock on fld. P-line SE.

GREEN VALLEY See HUNT

HEREFORD
THOMPSON INTL AVIATION 1 SE
4230 29 (2) L4 S4 F4 FSS: DOUGLAS
REMARKS: Rnwy lgts activated for 8 min by voice call on 121.9 mc.

HINE See MARICOPA

HOLBROOK MUNI 2 NE
5245 50 (2) BL4 S3 F4 FSS: ZUNI
REMARKS: Rnwy 11-29 rolling.

HORN
WHITEWING RANCH 2 1 N
530 25 (1)
REMARKS: P-line N.

HUNT
GREEN VALLEY 2 S
5609 56 (1)
REMARKS: Use at own risk. Livestock on rnwy.

KAIBITO 2 SW
6070 35 (1) FSS: PRESCOTT

KAYENTA 2 SE
5810 53 (1)
REMARKS: 80 87 Fuel avbl emgcy. P-line SW end.

KEARNY 1 S
1828 30 (1)

KINGMAN MUNI 7 NE
3446 H68 (3) BL4 S1 F4 U-1 FSS: NEEDLES, CAL.

LAKE HAVASU CITY Adj W
482 H43 (1) L4 F4
Remarks: 6000' strip avbl.

LAKE PLEASANT GUEST RANCH See NEW RIVER

LITCHFIELD PARK Adj NW
1062 H45 (1) L4 S1 F4 FSS: PHOENIX (LC 261-4295)
Remarks: Hvy jet tfc W. Rgt tfc E. Extension unlgtd.

LUKACHUKAI 2 SW
6450 33 (1)
Remarks: Land uphill, take-off down.

LUKEVILLE Adj W
1416 22 (1)
Remarks: N, S apchs hazardous.

MANY FARMS Adj N
5290 31 (1)
Remarks: Pole S, P-line N.

MARANA
MARANA ARPK 5 NW
1891 H68 (6) L4 S4 F5 U-1 FSS: TUCSON

W. B. RANCH 7 SW
2015 H24 (3) FSS: TUCSON
Remarks: P-line N and along W side rnwy 17-35.

MARBLE CANYON
CLIFF DWELLERS LODGE 9 SW
4210 34 (1) S3 FSS: BRYCE CANYON, UTAH

MARBLE CANYON Adj SW
3600 38 (1) F2 FSS: BRYCE CANYON, UTAH

MARICOPA
HINE 1 SE
1180 40 (1) L4 S5 F4 FSS: PHOENIX

MARSH See YUMA

MAYER
ORME RANCH 9 NE
3925 23 (1) FSS: PRESCOTT

McDANIEL See SOMERTON

MESA
FALCON FLD 5 NE
1387 H43 (1) BL4 S5 F4 U-1
FSS: PHOENIX (LC 261-4295)

OASIS 10 E
1512 30 (1) FSS: PHOENIX
Remarks: P-line SW & NE

MORMAN LAKE Adj N
7180 39 (2)
Remarks: Clsd winter months. Ruf.

AIRPORT DIRECTORY

EW RIVER
LAKE PLEASANT GUEST RANCH 7 SW
1562 23 (2)

)GALES INTL 6 NE AOE
3933 H60 (1) BL4 S3 F4 U-1
FSS: TUCSON (LC 294-1463)

.K CREEK CANYON See SEDONA

.SIS See MESA

ME RANCH See MAYER

GE
;LEN CANYON 1 E
4292 H45 (1) BL4 S5 F4 FSS: BRYCE CANYON, UTAH
Remarks: Rgt tfc rnwys 33 & 25. Use E W strip only during periods of high winds. Fee for DC-3 and larger acft.

'AHWEAP 4 N
3850 26 (1) FSS: BRYCE CANYON, UTAH

RKER MUNI 1 NE
450 H38 (1) BL4 S3 F4 U-1 FSS: BLYTHE, CAL.

?KER CANYON LAKE 2 S
5542 43 (1) FSS: BLYTHE, CAL.

JL SPUR
ANCHO SAN JOSE 1 SW
4265 47 (1) F2 FSS: DOUGLAS

'SON
IRCH MESA 2 NW
5170 29 (2) F2 FSS: PHOENIX
Remarks: Irregularly attended

CH SPRINGS
?AND CANYON CAVERNS 9 E
5381 42 (1) F4 FSS: PRESCOTT

:ACH SPRINGS FLD 1 N
4825 24 (2) FSS: PRESCOTT
Remarks: P-line S & W.

ENIX
:ER VALLEY 15 N
1450 H104 (1) BL4 S5 F4 U-1 FSS: PHOENIX (DL)
?emarks: E 5200' clsd except special permission.

'MEZ 3 W
1030 24 (1) S5 F3 FSS: PHOENIX
?emarks: Road obsts apch to rnwy 17.

Y HARBOR MUNI See Section IV-A

RF 8 N
340 30 (1) S5 F2 FSS: PHOENIX
?emarks: Rgt tfc rnwy 4.

CHO
'S FLD 2 S
640 51 (1) S3 F2 FSS: PHOENIX
:emarks: P-line N. Attended days.

PIERCE FERRY 3 SW
2941 26 (2) FSS: LAS VEGAS, NEV.

POLACCA 3 SW
5590 H34 (1)

POTTERS FLD See STANFIELD

PRESCOTT
PRESCOTT MUNI *IFR* 7 NE
5042 H68 (2) BL4 S5 F4 FSS: PRESCOTT on Fld
Remarks: Prescott Muni (P)-Use runways. Taxi strips to rnwy 12 & 21 not to be used by acft with total gross load of 20,000 lbs or greater single wheel gear, 40,000 lbs or greater duol wheel gear, 60,000 lbs or greater dual tandem gear. Heavier acft taxi on rnwy.

RANCHO MOANA 14 NW
4900 26 (1) FSS: PRESCOTT
Remarks: Livestock on strip.

PUERTO CIELO See DOUGLAS

PULLIAM See FLAGSTAFF

SOLBERG-HUNTERDON *IFR* 1 NW

PUMPKIN CENTER See TONTO BASIN
QUARTER CIRCLE J RANCH See SKULL VALLEY

QUARTZITE Adj SW
894 31 (1) FSS: BLYTHE, CAL.
Remarks: Cactus apch rnwy 7.

RANCHO DE LOS CABALLEROS See WICKENBURG

RANCHO MOANA See PRESCOTT

RANCHO SAN JOSE See PAUL SPUR

RED MESA See TEECHNOS POS

REMUDA RANCH See WICKENBURG

RIGGS See CHANDLER

RIMROCK 3 NW
3575 25 (2) FSS: PRESCOTT
Remarks: P-line across threshold rnwy 1 and near rnwy 23.

ROLL
ANTELOPE RANCH 2 SW
250 25 (1) F4 FSS: YUMA
Remarks: P-line E & W. Occasionally clsd for irrigation. Irregularly attended.

ROOSEVELT
GRAPEVINE 5 E
2350 39 (2) FSS: PHOENIX
Remarks: Apch ends of rnwys 1 & 34 parked acft.

RYAN FLD See TUCSON

SAFFORD MUNI 4 NE
3176 H48 (2) BL4 S5 F4 U-1 FSS: DOUGLAS

AIRPORT DIRECTORY

ST. JOHNS MUNI 1 NW
5733 H41 (1) F3 FSS: ZUNI

SANDERS See **TEMPE**

SAN MANUEL 2 NW
3275 43 (1)

SARITA See **COOLIDGE**

SCOTTSDALE
THUNDERBIRD ACADEMY 8 N
1465 H43 (1) L4 S5 F4 FSS: PHOENIX (LC 261-4295)
Remarks: P-line W. Clsd Sat.

SEARCHLIGHT FERRY See **DAVIS DAM**

SEDONA
OAK CREEK CANYON 2 SW
4826 H34 (1) BL4 S3 F4
Remarks: Ngts due to high elevations within 3 miles.

SELIGMAN Adj W
5300 43 (1) FSS: PRESCOTT
Remarks: Soft - wet.

SELLS 2 NW
2380 27 (1) FSS: TUCSON
Remarks: Embankment WSW. P-line WSW.

SHOW LOW MUNI 2 NE
6412 H43 (1) L4 S5 F4 U-1 FSS: ZUNI
Remarks: Lmtd to acft with GWT less than 15,000 lbs. Open ditch adj N side.

SKULL VALLEY
QUARTER CIRCLE J RANCH 1 NE
4340 18 (1)
Remarks: P-line SW. Use at own risk.

SKY HARBOR See **PHOENIX, SKY HARBOR MUNI** in Section IV-A

SNOWFLAKE MUNI 3 NW
5750 39 (1) F4 FSS: ZUNI
Remarks: Unattended.

SOMERTON
McDANIEL 3 W
100 30 (2) FSS: YUMA
Remarks: P-line apch rnwy 8.

SPRINGERVILLE-EAGAR MUNI 1 W
7052 H44 (3) *L4 F4 FSS: ZUNI
Remarks: Attended on call.

STANFIELD
POTTERS FLD Adj SE
1307 25 (1) S3 F2 U-1 FSS: PHOENIX
Remarks: P-line N & S. Hangers N.

STANFIELD Adj NW
1296 29 (2)

SUPERIOR MUNI 2 SW
2646 35 (1) FSS: PHOENIX
Remarks: P-line NE. Mountains WSW. Unattended.

TACNA Adj S
360 33 (2) *L4 F2 FSS: YUMA
Remarks: P-line NW.

TEEC NOS POS
RED MESA 14 W
5368 39 (1)

TEEC NOS POS 2 E
5450 30 (1)
Remarks: P-line SW. Soft sand. Vehicles and livestock on strip.

TEMPE
SANDERS 4 S
1224 25 (1) F2 FSS: PHOENIX (LC 261-4295)
Remarks: P-line N, S. Use at own risk.

TEMPLE BAR 1 SW
1498 36 (1)

THOMPSON INTL AVIATION See **HEREFORD**

THREE POINT See **CASA GRANDE**

THUNDERBIRD ACADEMY See **SCOTTSDALE**

TOMBSTONE MUNI 3 SE
4743 45 (1) S1 FSS: DOUGLAS
Remarks: Unattended.

TONTO BASIN
PUMPKIN CENTER 1 SE
2350 17 (1) FSS: PHOENIX
Remarks: Livestock on rnwy.

TUBAC 2 N
3238 26 (1) S3 F2 U-1 FSS: TUCSON
Remarks: P-line N.

TUBA CITY Adj E
4950 43 (1) FSS: PRESCOTT

TUCSON
COMPRESSOR STATION 23 NW
2079 30 (1) FSS: TUCSON

DOWNTOWN TUCSON 1 S
2490 43 (2) S5 F4 FSS: TUCSON (LC 294-[illegible])
Remarks: P-lines SE, W & NW. Use E side 16 34.

FREEWAY 4 NW
2290 45 (1) L4 S5 F4 U-1 FSS: TUCSON (LC 294-[illegible])

RYAN FLD 14 SW
2413 H40 (3) BL4 S5 F4 FSS: TUCSON (LC 294-[illegible])
Remarks: P-line SSE.

TUCSON INTL See Section IV-A

AIRPORT DIRECTORY

RF See PHOENIX

WEEP 7 S
4675 34 (1)
Remarks: Air turbulence. Watch for livestock.

TING SIDING See BOUSE

LLE
RIZONA STATE 2 E
6001 57 (3) FSS: PRESCOTT
Remarks: Use cntr of strips. P-line S.

. RANCH See MARANA

IVEAP See PAGE

.TON 2 SE
315 H40 (2) FSS: YUMA

TE RIVER 2 SW
5109 30 (1) FSS: ZUNI
Remarks: State hwy usable when arpt is muddy.

TEWING RANCH 2 See HORN

KENBURG
.YING E RANCH 3 SW
2417 29 (1) *L4 F2 FSS: PHOENIX
Remarks: Only central 2250' is lgtd.

NCHO DE LOS CABALLEROS 3 SW
2510 24 (1) FSS: PHOENIX

MUDA RANCH 1 N
2091 38 (1) FSS: PHOENIX

CKENBURG MUNI 12 W
2380 36 (1) FSS: PHOENIX

OX
CHISE CO 3 W
1186 H61 (2) BL4 S1 F4 U-1 FSS: DOUGLAS
Remarks: Center 4000' rnwys 3-21 lgtd.

IAMS MUNI 4 N
700 H39 (1) BL4 S5 F4 U-1 FSS: PRESCOTT
Remarks: Muddy when wet.

OW ROCK 2 S
755 H70 (1) L4 S3 F4 U-1
emarks: Rnwy 3-21 soft when wet.

.OW MUNI *IFR* 2 SW
937 H75 (2) BL4, 7 S5 F5 U-1
FSS: PRESCOTT (LC-H1.5-2160)
emarks: P-line ENE. Attended on call after 9:00 PM. Rnwy 22 threshold displaced 1237'.

G
)AD A AIRSTRIP 2 NE
213 34 (1) FSS: PHOENIX
emarks: Vehicles crossing rnwy.

YUMA
MARSH 1 E
130 33 (1) S5 F2 FSS: YUMA (LC 782-3807)
Remarks: Rgt tfc N. Ditch N end. Muddy when wet.

YUMA MCAS/INTL See Section IV-A

ARKANSAS

ADAMS FIELD See LITTLE ROCK ADAMS FLD in Section IV-A

ALEXANDER
CLIFF PACKER AUTO RANCH 1 N
322 H33 (1)
REMARKS: Six flood lgts along S side of rnwy.

ALMYRA MUNI 3 W
210 H30 (2) L4 S3 F4 FSS: PINE BLUFF

ARKADELPHIA MUNI 1 S
181 H30 (1) S1 F4 U-1 FSS: PINE BLUFF
REMARKS: Attended days.

ASHDOWN
LITTLE RIVER CO 1 NE
326 29 (1) FSS: TEXARKANA

AUGUSTA
STANLEY 4 S
210 37 (2) L4 F4 FSS: WALNUT RIDGE
REMARKS: Attended April - Oct soft when wet.

TAGGART 1 E
215 22 (1) F2 FSS: WALNUT RIDGE
REMARKS: Unattended. P-lines N, S.

BAILEY See CABOT

BAKER FLYING SERVICE See EUDORA

BALD KNOB MUNI Adj SE
212 22 (1) FSS: WALNUT RIDGE

BATESVILLE MUNI 3 S
464 H28 (1) BL4 F4 FSS: WALNUT RIDGE
REMARKS: E/W strip hazardous.

BEARCE See MOUNT IDA

BENTON
SALINE CO Adj W
325 H34 (1) S5 F4 FSS: PINE BLUFF

BENTONVILLE MUNI 2 S
1296 25 (1) S5 F4 U-1 FSS: FAYETTEVILLE
REMARKS: Soft when wet.

BERRYVILLE 1 NW
1200 22 (1) F2 FSS: HARRISON

BILLINGSLEY'S See HORATIO

BLYTHEVILLE MUNI 4 E
256 H25 (1) L4 S5 F4 U-1 FSS: DYERSBURG

AIRPORT DIRECTORY

BRINKLEY
FEDERER MEML 1 E
194 H30 (1) BL4 S3 F4 FSS: PINE BLUFF
REMARKS: Water tank NW. Soft-wet hazardous.

BURNETT See WYNNE

CABOT
BAILEY Adj W
305 16 (1) F2 FSS: PINE BLUFF

CAMDEN
HARRELL FLD 3 NE
128 H35 (1) BL4 F2 U-1 FSS: EL DORADO
REMARKS: Attended days.

CHARLISLE
CARLISLE Adj S
235 24 (1) S5 F2 FSS: PINE BLUFF
REMARKS: Soft when wet. P-line S.

CARLISLE MUNI 3 NE
241 H45 (2) S1 F2 FSS: PINE BLUFF
REMARKS: Attended on call 24 hrs.

CHEROKEE VILLAGE 3 SW
700 H28 (1) L4 F4 FSS: WALNUT RIDGE
REMARKS: 5000' strip avbl.

CLARENDON MUNI 5 SW
217 24 (1) U-1 FSS: PINE BLUFF

CLARKSVILLE MUNI 2 E
458 H25 (1) BL4 FSS: FORT SMITH

CLIFF PACKER AUTO RANCH See ALEXANDER

COMMERCIAL See DEWITT

CONWAY MUNI 1 SE
317 H29 (1) BL4 S5 F4 U-1 FSS: PINE BLUFF
REMARKS: 164' rdo twr 0.5 mi NW.

COTTON PLANT
OVERHOLT 3 W
190 26 (2) F2 FSS: PINE BLUFF
REMARKS: P-line N, S.

CROSSETT MUNI 5 NE
181 H36 (1) L4 S5 F4 U-1 FSS: EL DORADO
REMARKS: P-line N.

CRYSTAL LAKE See DECATUR

DECATUR
CRYSTAL LAKE 1 NE
1180 25 (1) L4 FSS: FAYETTEVILLE

DE QUEEN AIRSTRIP Adj N
450 18 (1) F2 FSS: TEXARKANA
REMARKS: Rdo twr SW. P-line NE. Soft when wet.

DEWITT
COMMERCIAL 3 W
200 26 (1) F2 FSS: PINE BLUFF
REMARKS: P-line E.

LAKESIDE 1 SE
190 25 (1) *L4 F4 FSS: PINE BLUFF
REMARKS: Attended days.

DIAMOND BAY RESORT See MOUNTAIN HOME

DICKEY See EARLE

DOCKERY See STUTTGART

DOWNTOWN See EL DORADO

DUMAS
MAYER AVIATION, INC 2 NW
162 20 (1) S3 F2 FSS: PINE BLUFF
REMARKS: P-line N, S. Unattended.

EARLE
DICKEY 1 S
212 H29 (1) *L4 S1 F4 FSS: MEMPHIS
REMARKS: Bldgs, P-line E. Unattended.

EL DORADO
DOWNTOWN 2 S
265 H24 (2) S5 F4 FSS: EL DORADO (LC JUN 3-53)
REMARKS: P-lines N & S.

GOODWIN FLD *IFR* 7 W
277 H51 (3) BL4 S3 F4 U-1 FSS: EL DORADO or E

ENGLAND FLYING SERVICE 4 W
220 H11 (1) F4 U-1 FSS: PINE BLUFF
REMARKS: 2350' strip avbl. P-lines N, S.

EUDORA
BAKER FLYING SERVICE 1 E
116 30 (1) F2
REMARKS: Trees, P-lines S.

EUREKA SPRINGS
LUCERNE 3 S
1520 22 (1) FSS: HARRISON
REMARKS: P-line SE.

FAYETTEVILLE
FAYETTEVILLE MUNI (Drakefield) *IFR* 4 S
1250 H50 (1) BL4 S5 F4 FSS: FAYETTEVILLE or F

RAZORBACK 1 N
1260 19 (1) S4 F2 FSS: FAYETTEVILLE

FEDERER MEML See BRINKLEY

FLIPPIN MUNI *IFR* 1 N
721 37 (1) BL4 S3 F4 U-1
FSS: HARRISON (LC EM 5-53)

FLYING D RANCH See SHERIDAN

AIRPORT DIRECTORY

IRDYCE MUNI 2 NE
275 H14 (1) BL4 F2 FSS: PINE BLUFF

RREST CITY MUNI 4 S
249 H30 (1) BL4 F4 U-1 FSS: MEMPHIS

SMITH MUNI See Section IV-A

ANKLIN
IORSEHOE BEND 2 NE
770 H38 (1) U-1

RRETT See LITTLE ROCK

SVILLE
ED BUD TROUT DOCK 1 S
450 25 (1)
REMARKS: Rough, rnwy curves slightly.

TON'S See LAKEVIEW

DWIN FLD See EL DORADO

DER FLD See PINE BLUFF

DON MUNI 1 NW
229 25 (2) S3 FSS: TEXARKANA
REMARKS: Soft when wet. P-line NE.

DY
ARK ACRES 5 E
710 H17 (1) S3 F2 U-1 FSS: WALNUT RIDGE
REMARKS: P-line 195° N.

RELL FLD See CAMDEN

RISON
ARRISON MUNI *IFR* 3 NW
1375 H40 (1) BL4 S5 F4 FSS: HARRISON on Fld
REMARKS: Harrison Muni (P)-DC 3 & largeracft use concrete pad N end NW-SE rnwy for locked wheel turns. Paved ramp in front of trml and FAA bldgs restricted to passenger loading, unloading and refueling. Parking areas confined to sod area N and S of paved ramp.

RRISON FLD See LEWISVILLE

ELL See OSCEOLAR

N MUNI 3 SW
30 H45 (1) F2 FSS: PINE BLUFF

R SPRINGS 1 N
60 H24 (1) BL4 S3 F4 U-1 FSS: PINE BLUFF

NA
OMPSON-ROBBINS FLD 5 NW
40 H36 (2) BL4 S5 F4 FSS: MEMPHIS
Remarks: E/W rnwy lgt acft only; max lndg wt 30,000 lbs.

MUNI 4 NW
59 H55 (3) BL4 F3 U-1 FSS: TEXARKANA
Remarks: Attended days.

HORATIO
BILLINGSLEY'S 3 SW
400 27 (1) FSS: TEXARKANA
Remarks: P-line SE. Rolling.

HORSESHOE BEND See FRANKLIN

HOT SPRINGS MEML See Section IV-A

HOXIE
RECKER 2 SW
260 25 (2) FSS: WALNUT RIDGE
Remarks: P-line N, S, NE

HUNTSVILLE
REEVES 2 SE
1505 22 2. FSS: FAYETTEVILLE
Remarks: W thr prohibited due rnws W. P-line E.

JAYCEE FLD See WALDRON

JOHNSON See WILMOT

JONESBORO MUNI 3 E
264 H44 (3) BL4 S5 F4 U-1 FSS: WALNUT RIDGE
Remarks: P-line S. Rnwy 36 threshold displaced 150' N.

LAHAR FLD See MOUNTAIN HOME

LAKESIDE See DEWITT

LAKEVIEW
GASTON'S 1 SE
530 22 (1) S3 F4 FSS: HARRISON
Remarks: Atnd days, P-line WSW.

LAKE VILLAGE
TINDALL FIELD 1 SW
120 28 (1) F2
Remarks: P-line N. Unattended.

LEWISVILLE
HARRISON FLD Adj NE
360 30 (1) S5 F2 FSS: TEXARKANA

LITTLE RIVER CO See ASHDOWN

LITTLE ROCK
ADAMS FLD See Section IV-A

GARRETT 9 SW
324 16 (2) S3 F2 FSS: PINE BLUFF

LONOKE 4 NW
235 16 (1) FSS: PINE BLUFF
Remarks: P-line NE.

LUCERNE See EUREKA SPRINGS

MACK'S See TEXARKANA

MAGNOLIA MUNI 3 SE
313 H36 (1) BL4 S5 F4 U-1 FSS: EL DORADO

AIRPORT DIRECTORY

MALVERN MUNI 3 SE
535 H26 (1) BL4

MANILA MUNI 2 NE
242 49 (2) BL4 S5 F4 U-1 FSS: DYERSBURG
Remarks: Displaced thresholds rnwy 17-400' - rnwy 35-550'.

MARIANNA 1 W
240 26 (1) F2 FSS: MEMPHIS
Remarks: Attended on call April-Nov. Wedge ruf. Trees.

MAYER AVIATION INC See DUMAS

MENA MUNI 2 SE
1069 45 (1) BL2 S5 F4 FSS: FORT SMITH

MONTICELLO MUNI 2 E
276 H30 (1) BL4 S1 F2 FSS: PINE BLUFF
Remarks: TV ant. Unattended.

MORRILTON
MORRILTON 4 NW
300 31 (1) F3 FSS: PINE BLUFF
Remarks: Attended 24 hours. Soft when wet. E 100' rnwy rises sharply. Rnwy 27 appch restricted by trees.

PETIT JEAN PARK 8 W
921 H52 (1) BL4, 10, 11 S1 F4, JP1 VASI: Rnwys 2, 20
FSS: PINE BLUFF
Remarks: REIL rnwy 2, 20.

MOUNT IDA
BEARCE 5 SE
643 H26 (1)

MOUNTAIN HOME
DIAMOND BAY RESORT 8 SE
700 22 (1) FSS: HARRISON

LAHAR FIELD 2 SW
900 26 (1) S1 F2 FSS: HARRISON

MOUNTAIN VIEW
WILCOX MEML FLD 1 E
750 23 (1) F2 FSS: HARRISON

NEWPORT MUNI 5 NE
237 H50 (4) L4 S5 F4 U-1 FSS: WALNUT RIDGE
Remarks: Rough

NORTH LITTLE ROCK MUNI 4 N
545 H30 (1) BL6 S5 F4 U-1 FSS: PINE BLUFF

OSCEOLA
HARWELL 2 SW
240 15 (2) F2 FSS: DYERSBURG
Remarks: Bldg W.

OVERHOLT See COTTON PLANT

OZARK
WHITMAN FLD 1 N
600 22 (2) F2 FSS: FORT SMITH
Remarks: P-line SW. Unattended.

OZARK ACRES See HARDY

PARAGOULD MUNI 1 NW
291 H28 (1) BL4 S1 F4 U-1 FSS: WALNUT RIDGE
Remarks: Attended days.

PARIS MUNI 2 E
430 24 (1) FSS: FORT SMITH
Remarks: Unattended.

PATTERSON See ST JOE

PETIT JEAN PARK See MORRILTON

PINE BLUFF
GRIDER FIELD *IFR* 5 SE
206 H51 (1) BL4, 11 S5 F4 U-1
FSS: PINE BLUFF on FSS
VFR ADV For APP CON/DEP CON See LITTLE ROCK ADAMS FIELD in Section IV-A
Remarks: REIL rnwy 17.

POCAHONTAS MUNI 1 SE
280 35 (2) S1 F2 FSS: WALNUT RIDGE
Remarks: Rough.

RAZORBACK See FAYETTEVILLE

RECKER See HOXIE

RED BUD TROUT DOCK See GASSVILLE

REEVES See HUNTSVILLE

ROGERS MUNI *IFR* 2 NE
1360 H38 (1) BL4 S1 F4 U-1 FSS: FAYETTEVILLE

RUSSELLVILLE MUNI 2 SE
391 H31 (1) L4 S5 F4 U-1 FSS: FORT SMITH

ST JOE
PATTERSON 5 SE
900 29 (1)

SALINE CO See BENTON

SEARCY MUNI 2 S
260 H24 (1) L4 S1 F4 FSS: PINE BLUFF

SHERIDAN
FLYING D RANCH 6 NE
261 26 (1) F2

SILOAM SPRINGS
SMITH FIELD 3 E
1177 H30 (1) BL4 F4 U-1 FSS: FAYETTEVILLE
Remarks: P-line N and E.

SMITH FLD See SILOAM SPRINGS

SPRINGDALE MUNI *IFR* Adj SE
1352 H25 (1) BL4 S5 F4 U-1 FSS: FAYETTEVILLE

STANLEY See AUGUSTA

AIRPORT DIRECTORY

UTTGART
OCKERY 1 NW
210 22 (1) S5 F4 FSS: PINE BLUFF (LC WA 2-6883)
Remarks: P-line S.

STUTTGART MUNI 7 N
224 H50 (4) BL4 S3 F4 U-1
FSS: PINE BLUFF (LC WA 2-6883)
VFR ADV For APP CON, DEP CON See LITTLE ROCK ADAMS FIELD in Section IV-A
Remarks: Use rnwys.

GGART See AUGUSTA

CARKANA
ACK'S 3 SE
390 19 (3) *L4 F2 U-1 FSS: TEXARKANA (LC 774-6221)
Remarks: P-line SW.

EXARKANA MUNI *IFR* 3 NE
339 H52 (2) BL4 S3 F5, JP5 FSS: TEXARKANA on Fld
Remarks: Use rnwys. Rnwy 13 threshold displaced 175' SE.

MPSON-ROBBINS FLD See HELENA

LAR Adj W
150 32 (1) *L F2 FSS: PINE BLUFF
Remarks: P-line N. Agriculture operns May - Oct.

)ALL FLD See LAKE VILLAGE

BASEKA FLYING SERVICE 1 SE
200 24 (1) S3 F2 FSS: PINE BLUFF
Remarks: Unattended.

DRON
YCEE FLD 2 N
580 20 (1) F2
Remarks: Soft when wet.

NUT RIDGE MUNI *IFR* 3 NE
275 H50 (3) BL4 S1 F4 FSS: WALNUT RIDGE on Fld

ER 2 S
245 23 (1) F2
Remarks: Hi-line NNW.

MEMPHIS 3 W
12 H39 (1) BL4 S5 F4 U-1
FSS: MEMPHIS (LC 398-9269)

MAN FLD See OZARK

OX MEML FLD See MOUNTAIN VIEW

DT
INSON 1 NE
05 26 (1) F2
emarks: Unattended. P-line S.

E
RNETT 2 N
30 25 (1) F2 U-1
emarks: P-line NE. Soft wet.

CALIFORNIA

ADELANTO
EL MIRAGE FLD 9 NW
2865 H37 (4) S4 F2 FSS: PALMDALE

HANSEN 13 NW
2868 40 (1) *L4 F2 U-1 FSS: PALMDALE
Remarks: Unattended.

SUN HILL RANCH 11 NW
2950 23 (1) FSS: PALMDALE
Remarks: Ruf, rolling. Rgt tfc NW. Attended weekends.

ADIN MUNI 1 SW
4228 H22 (1) FSS: KLAMATH FALLS
Remarks: P-line SE ruf.

AGUA CALIENTE SPRINGS
AGUA CALIENTE 1 NE
1215 19 (1) FSS: SAN DIEGO
Remarks: Soft sand and ruffed.

AGUA DULCE ARPK Adj E
2680 H50 (1) F4 FSS: PALMDALE
Remarks: Attended days. P-line E. 800' displaced threshold both ends.

ALTA See DINUBA

ALTURAS
ALTURAS MUNI 1 W
4375 H34 (1) L4 S1 F4 FSS: KLAMATH FALLS
Remarks: P-line NE, SW. Ant NE. 150 min alt over houses.

DEVILS GARDEN 6 NW
5022 H62 (1) FSS: KLAMATH FALLS
Remarks: Soft shoulders. Unattended.

AMADOR CO See JACKSON

AMBOY
ROY 1 NW
670 37 (2) FSS: NEEDLES
Remarks: Unattended.

ANGELS CAMP
FROG TOWN 2 SE
1530 H21 (1) S3 FSS: STOCKTON

ANGWIN Adj E
1835 28 (1) S5 F4 U-1 FSS: UKIAH
Remarks: Rgt tfc N. Clsd Sat 960' overrun N end. Threshold displaced 600' at S end.

ANTIOCH 3 S
191 H25 (1) L4 S5 F4 U-1 FSS: STOCKTON
Remarks: P-line W, NW; surnd by hills. Threshold displaced 415' W end rnwy 9.

APPLE VALLEY 2 NW
2929 H41 (1) BL4 F4 FSS: DAGGETT
Remarks: P-lines SSW.

AIRPORT DIRECTORY

ARCATA-EUREKA
ARCATA *IFR* 7 NW
217 H60 (2) BL4, 6, 8, 10 F4 VASI: Rnwy 13
FSS: ARCATA on Fld
Remarks: Rgt tfc rnwys 13 & 19.

ATWATER
BULLER Adj S
142 22 (1) *L4 S5 F2 FSS: FRESNO
Remarks: P-line S.

AUBURN MUNI 3 N
1523 31 (2) BL2 S5 F4 U-1 FSS: SACRAMENTO
Remarks: Ruf.

AVALON
CATALINA 6 NW
1560 H32 (1) F4 U-1 FSS: LOS ANGELES
Remarks: Avalon, Catalina—Hrs of opern May 1-Sept 30, 0800-SS 7 days per week. Oct 1-Apr 30 0800-1700 P Fri, Sat and Sun. UNICOM 122.8 mc required. Rgt tfc rnwy 22. Experienced pilots only. Dangerous drop off both ends of rnwy. Rnwy 4 slopes downhill. No landing FEE.

AVENAL Adj W
790 29 (3) *L4 F2 U-1 FSS: FRESNO
Remarks: P-line N. Rgt tfc E, S, SE; soft-wet; unattended.

BAKER 2 NW
920 32 (1)

BAKERSFIELD
BAKERSFIELD ARPK 1 S
378 H32 (1) L4 S5 F4 U-1 FSS: BAKERSFIELD
Remarks: P-line NW. Rnwy restricted to 12,500 lbs or less.

MEADOWS FLD See Section IV-A

BANNING MUNI 1 SE
2190 H52 (1) BL4 S5 F4 U-1 FSS: THERMAL

BARSTOW-DAGGETT See DAGGETT

BECKWOURTH 1 E
4895 H35 (1) BL4 S5 F4 U-1 FSS: RENO

BENTON FLD See REDDING

BERMUDA DUNES 3 NW
80 H35 (1) L4 S5 F4 U-1

BIDWELL See RED BLUFF

BIEBER
SOUTHARD FLD 1 NE
4158 H29 (1) F2 FSS: KLAMATH FALLS
Remarks: Unattended.

BIG BEAR CITY Adj NW
6750 H35 (1) F2 FSS: DAGGETT
Remarks: Open May thru Sept. Fuel in emgcy.

BISHOP 2 E
4118 H75 (3) BL4 F4 U-1 FSS: TONOPA-
Remarks: Ctc UNICOM for rnwy lgts. FEE for service after hrs.

BLACKWELLS CORNER See LOST HILLS

BLAND See KERMAN

BLUE CANYON 1 NE
5284 34 (1) B FSS: SACRAMENTO
Remarks: P-line NNW. Rolling. No snow removal.

BLYTHE
BLYTHE *IFR* 6 W
397 H69 (3) BL4 S3 F4, JP1 U-1
FSS: BLYTHE on Fld
Remarks: Rnwy 3-21 ruf.

HERON FLD 1 E
265 H25 (1) S5 F4 U-1 FSS: BLYTHE (LC 948-6639
Remarks: P-lines N.

BOONVILLE 1 NW
370 H23 (1) FSS: UKIAH

BORGES-CLARKSBURG See CLARKSBURG

BORREGO SPRINGS
BORREGO VALLEY-SAN DIEGO COUNTY 3 E
520 H35 (1) BL4 F4 U-1 FSS: SAN DIEGO
Remarks: Use rnwy. 140' twr 1600' W of rnwy 7.

BORREGO VALLEY-SAN DIEGO COUNTY See BORREGO SPRINGS

BOWLES See LIVE OAK

BRACKETT FLD See LA VERNE

BRAWLEY
BRAWLEY MUNI 1 NE
-128 H32 (2) L4 S5 F4 FSS: IMPERIAL
Remarks: P-lines SE, E.

O'CONNELL BROS 1 SW
-100 23 (1) S5 F4 FSS: IMPERIAL
Remarks: P-line W. Use strip.

BRIDGEPORT
BRYANT FLD Adj NE
6468 H30 (1) F4 FSS: RENO
Remarks: Unattended.

BROWNSVILLE 2 SW
2120 25 (1)
Remarks: Attended June-Oct.

BRYANT FLD See BRIDGEPORT

BUCHANAN FLD See CONCORD in Section IV-A

BULLER See ATWATER

AIRPORT DIRECTORY

BANK LOCKHEED AIR TRML See Section IV-A

TE VALLEY See DORRIS

TONWILLOW-KERN CO NO. 15 1 N
271 H27 (1) BL4 FSS: BAKERSFIELD
Remarks: Unattended.

LE See UPLAND

AVERAS CO See SAN ANDREAS

EXICO INTL 1 W AOE
5L H45 (1) L4 S1 F4 U-1 FSS: IMPERIAL
Remarks: Rgt tfc W.

FORNIA CITY 2 NW
'445 42 (1) F4 FSS: PALMDALE
Remarks: 1000' overrun each end.

PATRIA MUNI Adj NW
180 H25 (1) L4 S1 F4 FSS: IMPERIAL
Remarks: 4200' strip avail. P-lines NE, SE, SW, NW. 650' overrun rnwy 30.

STOGA ARPK Adj NE
55 27 (1) L4 S3 F4 U-1 FSS: UKIAH
emarks: Rgt tfc WNW. P-line WNW. Rnwy lgts SS-2400, thereafter on prior request.

STRANO See SAN JUAN CAPISTRANO

SBAD
.OMAR 3 SE
28 H47 (1) BL4 S5 F4 U-1 FSS: SAN DIEGO (DL)

EL VALLEY
MEL VALLEY Adj N
0 H18 (1) FSS: SALINAS
marks: Unattended.

MEL VALLEY See ROBLES DEL RIO

NTERIA
SONS ARPK 2 E
0 H20 (1) S3 F4
FSS: SANTA BARBARA (LC 967-2305)
marks: Rgt tfc W.

LL'S See JULIAN

R'S RANCH See ROSAMOND

INA See AVALON

VILLE 1 N
23 H36 (1) F4 FSS: KLAMATH FALLS
marks: Unattended.

ER 1 SW
25 H53 (1) L4 S5 F4 U-1 FSS: RENO
marks: 9300' strip avbl.

CHICO
CHICO MUNI 4 N
237 H67 (1) BL4 S5 F4 U-1
FSS: RED BLUFF (LC 343-5756)
Remarks: Rgt tfc SE.

CHICO RANCHAERO 1 SW
173 H23 (1) S5 F4 U-1
FSS: RED BLUFF (LC 343-5756)

CHINO 3 SE
625 H61 (2) BL4 S5 F4 U-1 FSS: ONTARIO

CHOWCHILLA 1 SE
240 H20 (1) F2 FSS: FRESNO
Remarks: Unattended.

CIRCLE M RANCH See ORLAND

CLARKSBURG
BORGES-CLARKSBURG 3 NE
12 21 (1) S5 F2 FSS: SACRAMENTO
Remarks: P-line NE.

CLOVERDALE MUNI ARPK 3 S
272 H28 (1) L4 S3 F2 FSS: UKIAH
Remarks: Attended 8 AM-4 PM.

COALINGA AIR SERVICE 1 N
714 H53 (2) L4 F4 FSS: FRESNO

CODDINGTOWN See SANTA ROSA

COLE RANCH See NEWBERRY

COLUMBIA
COLUMBIA 1 SW
2112 H36 (1) BL4 S5 F4 U-1 FSS: STOCKTON
Remarks: Rgt tfc to SE.

COLUMBIA See SONORA

COLUSA
COLUSA 1 SW
47 25 (1) *L4 S5 F2 FSS: MARYSVILLE

COLUSA COUNTY *IFR* 2 S
50 H19 (1) BL4 S4 F4 FSS: MARYSVILLE

COMPTON 2 SW
97 H26 (1) BL1 S5 F4
FSS: LOS ANGELES (LC SP 6-2727)
Remarks: 3400' strip avbl.

CONCORD BUCHANAN FLD See Section IV-A

CORCORAN
CORCORAN 2 NW
195 H38 (1) L4 S5 F4 U-1 FSS: BAKERSFIELD
Remarks: P-line 605' displaced threshold rnwy 13,540' rnwy 31.

SALYER FARMS 1 SE
202 H30 (1) L4 F4 FSS: BAKERSFIELD
Remarks: Twr NNW. P-line W.

AIRPORT DIRECTORY

CORNING MUNI 1 NE
299 H23 (1) BL4 S5 F4 U-1 FSS: RED BLUFF
Remarks: 980' overrun N end soft when wet.

CORONA MUNI 2 NW
530 H31 (1) L4 S5 F4 U-1 FSS: ONTARIO
Remarks: E 2000' lgtd. 900' overrun W end.

COSO JUNCTION
GILLS Adj W
3380 26 (1)
Remarks: P-line E.

COVELO-ROUND VALLEY 1 SW
1418 35 (2) L4 F2 FSS: UKIAH
Remarks: Hills WNW. Rgt tfc rnwys 27 and 34. Ngt lndg rnwy 27 only, make let down over city; lgts avail on request. Unattended.

CRESCENT CITY
McNAMARA FLD *IFR* 2 NW
56 H50 (3) BL4, 11 S5 F4
FSS: CRESCENT CITY on Fld
Remarks: REIL rnwy 17.

CRYSTAL See **LLANO**

CULVER CITY
HUGHES 3 SW
22 H88 (1)
VFR ADV: For DEP CON-See LOS ANGELES/LOS ANGELES INTL, CALIFORNIA in Section IV-A
FSS: LOS ANGELES (DL)
Remarks: Bluff S. P-line NE. Clsd trans acft excp ofl bus. Prior notification requested.

DAGGETT
BARSTOW-DAGGETT *IFR* 4 E
1927 H64 (2) BL2 S1 F4 FSS: DAGGETT on Fld
Remarks: 20' lgtd wind mast lctd 2290' ENE of int rnwy 3 and 7, 600' SE of centerline of rnwy 3 and 940' cntrline rnwy 7.

DARWIN Adj W
4730 21 (1) FSS: PALMDALE
Remarks: Rolling.

DAVIS
EL MACERO CLUB 3 E
30 H33 (1) F2 U-1 FSS: SACRAMENTO
Remarks: Restricted to acft under 10,000 lbs.

TREMONT 4 SE
27 22 (1) FSS: SACRAMENTO

UNIVERSITY 2 W
-211 H31 (3) *L4 F4 FSS: SACRAMENTO (DL)
Remarks: P-line SSW, NNW. Ditch off S end N/S rnwy.

DEATH VALLEY
DEATH VALLEY
-211 H29 (1) *L4 F4 FSS: DAGGETT
Remarks: Open lgt acft only. Unattended. Bcn, rnwy lgts on prior req Oct-Apr by phone to Furnace Creek Inn. Emgcy operate thru Tonopah FSS to ranger station. Fuel avbl prior request Oct-Apr only.

STOVE PIPE WELLS Adj NE
0 16 (1) F4 FSS: DAGGETT
Remarks: Unattended.

DELANO-KERN CO NO. 3 2 SE
314 H60 (1) BL4 S5 F4 U-1 FSS: BAKERSFIELD
Remarks: Use rnwys. Only 3000' of rnwy lgtd.

DEVILS GARDEN See **ALTURAS**

DINSMORES Adj E
2375 24 (1) FSS: ARCATA
Remarks: 80/87 fuel in emgcy.

DINUBA
ALTA 3 E
364 H33 (1) *L4 S5 F2 FSS: FRESNO
Remarks: P-line NNW.

SEQUOIA FLD 7 SE
310 H32 (1) F2 FSS: FRESNO
Remarks: Fuel emerg only.

DORRIS
BUTTE VALLEY 5 SW
4237 23 (1) FSS: KLAMATH FALLS

DOS PALOS
DOS PALOS 1 S
118 30 (1) F3 FSS: FRESNO

EAGLE FLD 6 SW
158 27 (1) S4 F2 FSS: FRESNO
Remarks: Attended dalgt hrs Apr-Oct only.

DUNSMUIR
MOTT 3 N
3256 H27 (1) BL2 S5 F4 FSS: MONTAGUE
Remarks: P-line WNW. Rgt tfc SSE.

EAGLE FLD See **DOS PALOS**

EAGLEVILLE 3 E
4496 34 (1)

ECKERT FLD See **STRATHMORE**

ELLIS FLD, WILLITS MUNI See **WILLITS**

EL MACERO CLUB See **DAVIS**

EL MIRAGE FLD See **ADELANTO**

ELMONTE
LOS ANGELES-ELMONTE 1 N
290 H25 (1) BL4 S5 F4 FSS: LOS ANGELES
Remarks: Rgt tfc SW. 1490 gravel over run rnwy 19.

EL NIDO
RED TOP RANCH 3 S
135 35 (1) F2
Remarks: P-line E and W.

AIRPORT DIRECTORY

INORE
YLARK FLD 3 SE
1252 40 (3) S5 F2 FSS: ONTARIO
Remarks: FEE. Mtns NE. P-line SE. Gliders in vicnty of fld, parachute jumpers drop zone btn end of rnwy & lake.

LON
IORNTON 3 NE
110 25 (1) F2 FSS: STOCKTON
Remarks: P-line E.

NDIDO
KE WOHLFORD RESORT 5 NE
625 15 (1) S3 F2 FSS: SAN DIEGO
Remarks: Unattended 100' drop off each end.

KA
REKA MUNI 2 W
0 H24 (1) S3 F4 FSS: ARCATA

RRAY FLD 2 NE
H23 (2) BL4 S5 F4 U-1
emarks: Rgt tfc NNW, W.

ER
JNER 3 SW
10 H24 (1) FSS: FRESNO

OAKS
)ENIX FLD 3 E
'0 H26 (1) L4 S5 F4 U-1 FSS: SACRAMENTO
emarks: Rgt tfc to NNE.

RIVER MILLS MUNI 1 N
23 H32 (1) L4 F4 FSS: RED BLUFF

O
)-KERN CO NO. 16 3 E
0 H44 (1) FSS: PALMDALE

RANCH See ROSAMOND

NA
-FONTANA 2 NE
35 H22 (1) S5 F2 FSS: ONTARIO
marks: Rolling P-line ENE. Rgt tfc W.

3IDWELL 1 N
12 39 (1) FSS: KLAMATH FALLS

3RAGG 1 N
18 (1) FSS: UKIAH

ONES
T VALLEY 3 NW
8 H38 (1) L4 F4 FSS: MONTAGUE

NA
IERVILLE *IFR* 3 SE
H40 (1) BL4 S5 F4 U-1 FSS: ARCATA
arks: Rgt tfc rnwy 11.

IN FLD 4 SE
H40 (3) FSS: SACRAMENTO

FREMONT
KING SKYLANES 2 SW
4 H23 (1) S3 F4 FSS: OAKLAND

SKY SAILING 5 S
15 18 (1) F2
Remarks: Glider operns. Touch & go operns not authorized.

FRESNO
FRESNO AIR TERMINAL See Section IV-A

CHANDLER FLD MUNI See Section IV-A

SIERRA SKY PARK 7 NW
325 32 (1) L S5 F4 FSS: FRESNO (LC 251-8269)
Remarks: Hi voltage P-line SE end strip, unlgtd. Lgts avail rdo reg thru Fresno Twr. Rgt tfc rnwy 12.

FROG TOWN See ANGLES CAMP

FULLERTON MUNI See Section IV-A

GANSNER FLD See QUINCY

GARBERVILLE 2 S
545 H28 (1) S3 F4 FSS: ARCATA
Remarks: Rgt tfc NNE. Soft when wet.

GASQUET
WARD FLD 1 W
390 30 (1) FSS: CRESCENT CITY

GEORGETOWN 1 NW
2587 30 (1) FSS: SACRAMENTO
Remarks: 80/87 fuel and repairs obtainable by phone. Unattended.

GIANT ROCK See YUCCA VALLEY

GILLESPIE See SAN DIEGO CO

GILLS See COSO JUNCTION

GLEN IVY HOT SPRINGS Ad, N
1200 19 (1)

GRANT'S AIRPARK See OLANCHA

GRASS VALLEY
LOMA RICA 3 E
3140 H32 (1) L4 S5 F4 FSS: MARYSVILLE
Remarks: Land to the E tkof to the W.

GRAVELLY VALLEY See UPPER LAKE

GREEN ACRES See VISALIA

GREY BUTTE See PEAR BLOSSOM

GRIMES
THAYER BROS 1 NW
54 19 (1) F2 FSS: MARYSVILLE
Remarks: Lgtd twr NE. Hangar & rdo twr SE. P-line E. Unattended.

AIRPORT DIRECTORY

GUSTINE 2 E
75 H23 (2) FSS: STOCKTON

HALF MOON BAY 5 NW
64 H50 (1) BL4 S5 F4 U-1 FSS: OAKLAND (DL)
Remarks: Rgt tfc NW. Attended Tue-Sun daylgt hrs.

HANFORD MUNI 1 SE
245 H30 (1) L4 S5 F4 U-1 FSS: FRESNO
Remarks: Rgt tfc NNW.

HANSEN See ADELANTO

HAPPY CAMP Adj W
1208 H30 (1) FSS: MONTAGUE

HART MINE See IVANPAH

HAWTHORNE MUNI See Section IV-A

HAYFORK 1 E
2361 H31 (1) FSS: ARCATA
Remarks: P-lines E.

HAYWARD AIR TRML See Section IV-A

HEALDSBURG MUNI 5 NW
225 H20 (1) S5 F4 U-1 FSS: UKIAH

HEMET-RYAN FLD 3 SW
1512 H43 (1) BL4 S5 F4 U-1 FSS: ONTARIO
Remarks: P-line SW. Restricted to max weight limit of 15,000 lbs per wheel for tkofs and lndgs. Helicopter operns avbl.

HENDERSON See OJAI

HERON FLD See BLYTHE

HESPERIA 3 S
3390 H34 (1) L4 S3 F4 FSS: DAGGETT
Remarks: Rgt tfc NE. P-line NE. Rnwy lgts & bcn oper until 12:30 AM, thereafter on prior request.

HOBERG (CO NO. 3) See SEIGLER SPRINGS

HOLLISTER MUNI 3 N
229 H43 (2) BL4 S5 F4 U-1 FSS: SALINAS

HOLTVILLE 5 NE
58 H60 (1)

HOOPA VALLEY 1 SE
325 28 (1) FSS: ARCATA

HUGHES See CULVER CITY

HYAMPOM 1 NW
1400 H20 (1) FSS: ARCATA

IMPERIAL COUNTY *IFR* 1 S
-57 H53 (1) BL4 S5 F4 U-1 FSS: IMPERIAL on Fld
Remarks: Rgt tfc rnwy 32.

INDEPENDENCE 1 N
3926 25 (1) FSS: TONOPA
Remarks: Unattended.

INDIO
SHAVER'S SUMMIT 28 E
1690 H60 (1)

INYOKERN-KERN CO NO. 8 Adj NW
2426 H73 (3) BL4 S5 F4 U-1 FSS: PALMDA.
Remarks: P-line S.

IVANPAH
HART MINE 7 S
4620 30 (2)

JACKSON
AMADOR CO 2 NW
1694 H20 (1) BL4 S5 F2 U-1 FSS: SACRAMEN

JACUMBA 2 E
2820 22 (1) FSS: SAN DIE
Remarks: Rolling P-line on mtn E.

JENEWEIN See VALLEY CENTER

JENSEN FLD See SACRAMENTO

JULIAN
CARROLL'S 9 E
2310 13 (1)

K FLD See TWENTY NINE PALMS

KERMAN
BLAND 2 SE
222 18 (1) FSS: FRES

KERN CO NO. 7 See MOJAVE

KERNVILLE-KERN CO NO. 13 2 S
2575 H40 (1) F4 U-1 FSS: BAKERSFIE
Remarks: S 560' rnwy has broken pavement and weeds.

KING CITY
MESA DEL REY 1 NE
370 H45 (1) L4 S5 F4 FSS: SALI
Remarks: Embank W NW. Only center 3600' lgtd.

KING SKYLANES See FREMONT

KLAMATH
McBETH FLD 2 SE
48 30 (1) FSS: CRESCENT C

KNIGHTS LNDG
SWEETSER 2 N
25 H16 (1) S5 F4 FSS: MARYS

LAKEPORT
LAMPSON FLD 3 S
1380 H33 (1) L4 S5 F4 FSS:
Remarks: Mtn NW 3800' strip avbl.

AIRPORT DIRECTORY

E TAHOE See TAHOE VALLEY

E WOHLFORD RESORT See ESCONDIDO

PSON FLD See LAKE PORT

PSON'S CROP SERVICE See ROBBINS

CASTER
LLERS RANCH 10 E
535 27 (1) B*L4 S5 F2 FSS: PALMDALE

ARTZ HILL 4 SW
470 26 (2) F4 FSS: PALMDALE
Remarks: P-line NW. Irregularly attended.

ERK'S RANCH 2 NE
368 17 (2) FSS: PALMDALE

J FOX *IFR* 3 NW
349 H50 (1) BL4
FR ADV: EDWARDS APP CON 133.65, 122.5R, 124.4
DDP CON 122.5R; 124.4 FSS: PALMDALE (DL)
Remarks: Rgt tfc W.

ERS Adj NE
100 27 (1) F2

ERNE
ACKETT FLD *IFR* 1 SW
07 H35 (1) BL4 S5 F4 U-1
FR ADV: MARCH APP CON 120.8; 122.5R DEP CON
.5; 122.5R FSS: ONTARIO (DL)
Remarks: Rgt tfc E. Avoid flgt over fairground bldgs.

INING Adj SE
97 32 (1) F4 FSS: TONOPAH
Remarks: 1260' asphalt in center of strip. Unattended. Fuel by prior request.

Y 1 NW
00 15 (1)

LN MUNI 3 NW
) H40 (4) L4 S5 F4 FSS: SACRAMENTO (DL)

See **LODI**

E RIVER
OCINO CO 3 SE
H52 (1) B*L4 F3 U-1 FSS: UKIAH
Remarks: Rnwy 11 rgt turn only after tkof ngt & IFR.

AK
.ES 2 NW
H16 (1) S3 F2 FSS: MARYSVILLE

ORE MUNI 1 NW
40 (1) L4 S5 F4 FSS: OAKLAND (DL)
Remarks: Bcn on prior req.

TAL 1 S
0 50 (1) FSS: PALMDALE (LC 947-3502)

LOCKHEED AIR TRML See BURBANK, LOCKHEED AIR TRML in Section IV-A

LODI
LIND'S 4 N
58 H31 (1) L4 S5 F4 FSS: STOCKTON
Remarks: Maintain high apch over 60 P-line E, W. 620' overrun W end. 850' displaced threshold E end rnwy 8-26

LODI ARPK 4 SW
25 25 (1) S5 F2 FSS: STOCKTON

LOMA RICA See GRASS VALLEY

LOMPOC 2 NW
88 H36 (1) BL4 S5 F4 U-1 FSS: SANTA BARBARA
Remarks: Rgt tfc W

LONE PINE 1 S
3700 H26 (1) L4 S5 F4 FSS: PALMDALE

LONG BEACH MUNI See Section IV-A

LONG VALLEY See MAMMOTH LAKES

LOS ANGELES
LOS ANGELES-EL MONTE See EL MONTE

LOS ANGELES INTL See Section IV-A

VAN NUYS See Section IV-A

WHITEMAN ARPK 2 SE
1033 H39 (2) S5 F4 FSS: LOS ANGELES
Remarks: P-line NW.

LOS BANOS MUNI 1 W
119 H20 (1) L4 S5 F4 FSS: FRESNO

LOST HILLS
BLACKWELLS CORNER 10 W
669 30 (1) FSS: BAKERSFIELD
Remarks: Rnwy poor. Uneven with soft spots.

LOST HILLS-KERN CO NO. 9 Adj NE
281 H45 (1) FSS: BAKERSFIELD

LOWER LAKE
PEARCE FLD 2 N
1400 H20 (1) L4 F2

MADERA MUNI 3 NW
253 H45 (2) BL4 S5 F4 FSS: FRESNO
Remarks: Attended 0800-1800 daily.

MAMMOTH LAKES
LONG VALLEY 6 E
7132 H43 (1)
Remarks: P-lines NW, SE. 4224' strip avail.

MARIN COUNTY See NOVATO

MARIPOSA-COUNTY 4 NW
2250 20 (1) L2 S3 F4 FSS: FRESNO

AIRPORT DIRECTORY

MARYSVILLE
YUBA CO *IFR* 3 SE
63 H60 (2) BL4 S5 F4 FSS: MARYSVILLE on Fld
VFR ADV: For APP CON See SACRAMENTO/SACRAMENTO MUNI, CALIFORNIA in Section IV-A

McBETH FLD See KLAMATH

McNAMARA FLD See CRESCENT CITY

MEADOWS FLD See BAKERSFIELD, MEADOWS FLD in Section IV-A

MENDOCINO CO See LITTLE RIVER

MENDOTA Adj E
162 23 (1) FSS: FRESNO

MERCED MUNI *IFR* 2 SW
155 H47 (2) BL4 S5 F4 U-1 FSS: FRESNO (DL)
VFR ADV: CASTLE APP CON 118.9

MERIDIAN
MORONI 3 SE
59 H18 (1) F3 FSS: MARYSVILLE
Remarks: Unattended.

SANBORN 2 SE
40 H20 (1) FSS: MARYSVILLE

MESA DEL RAY See KING CITY

METROPOLITAN
METROPOLITAN See STOCKTON, METROPOLITAN in Section IV-A

METROPOLITAN-OAKLAND INTL See OAKLAND, METROPOLITAN-OAKLAND INTL in Section IV-A

MIDDLETOWN
LARRY'S FLD 2 NW
1200 17 (1) FSS: UKIAH
Remarks: Soft-wet.

MIDLAND 1 S
940 26 (2) FSS: BLYTHE (LC 948-6638)
Remarks: Hill NW end.

MILLERS RANCH See LANCASTER

MIRO-FONTANA See FONTANA

MODESTO-CITY-COUNTY *IFR* 2 SE
96 H50 (2) BL4 S5 F4 FSS: STOCKTON (DL)
VFR ADV: For APP CON See STOCKTON/STOCKTON-METROPOLITAN, CALIFORNIA in Section IV-A
Remarks: Rgt tfc rnwys 11R, 29R.

MOJAVE
KERN COUNTY NO. 7 1 NE
2787 H99 (3) BL4 S5 F4, JP4 U-1 FSS: PALMDALE

MONTAGUE
MONTAGUE MUNI 1 W
2527 29 (2) L4 S3 F2 U-1
FSS: MONTAGUE (LC 459-3[illegible]

SISKIYOU COUNTY *IFR* 4 NE
2651 H75 (1) BL4 S5 F4 FSS: MONTAGUE [illegible]

MONTEREY-PENINSULA See Section IV-A

MONTGOMERY FLD See SAN DIEGO

MORGAN HILL 1 N
375 24 (1) FSS: SALIN[illegible]
Remarks: P-line S.

MORONI See MERIDIAN

MORROW FLD See RIALTO

MOTT See DUNSMUIR

MURRAY FLD See EUREKA

NAPA-COUNTY 5 S
33 H53 (2) BL4 S5 F4 FSS: OAKLAND [illegible]

NATIONAL CITY 1 S
8 20 (1) *L1 S5 F4 U-1
FSS: SAN DIEGO (LC 29[illegible]
Remarks: Rgt tfc rnwy 29. Bridge unlgtd apch to rnwy 29

NATOMAS See SACRAMENTO

NEEDLES
NEEDLES MUNI *IFR* 5 S
990 H58 (2) BL4 S3 F4 FSS: NEEDLES [illegible]

NEEDLES-RIVERVIEW 1 S
635 26 (2) L4 S3 F4 FSS: NEEDLES (LC EA [illegible]

WALTERS RANCH 5 NW
595 21 (3) S3 F2 FSS: NEED[illegible]
Remarks: Unattended.

NEVADA CITY 1 NW
3060 25 (2) FSS: MARYSV[illegible]

NEWBERRY
COLE RANCH 3 NW
1875 25 (1)
Remarks: P-lines E & W.

NEW CUYAMA Adj S
2203 40 (1) U-1 FSS: BAKERSF[illegible]

NEW JERUSALEM See TRACY

NEWTON FLD See STRATFORD

NORTH SHORE-BEACH ESTATE 1 W
-229 H22 (1) F2
Remarks: 400' overrun SE end. Attended dalgt hrs Sep '5[illegible] June 15.

AIRPORT DIRECTORY

VATO
ARIN COUNTY 2 N
1 H30 (1) S5 F4 FSS: OAKLAND (DL)
Remarks: Soft when wet.

TREE See VACAVILLE

DALE 3 SE
180 H21 (1) L4 S5 F4 U-1 FSS: STOCKTON
Remarks: Hills S, SE.

LAND METROPOLITAN-OAKLAND INTL See Section IV-A

ANO-COUNTY Adj NW
14 H24 (1) L4 S3 F3 U-1 FSS: PASO ROBLES

ANSIDE MUNI 2 NE
30 H20 (1) *L2, 4 S5 F4 FSS: SAN DIEGO
Remarks: 500' gravel overrun each end.

HNELL BROS See BRAWLEY

FILLO-DRY LAKE 1 N
60 48 (2) F2
Remarks: Unusable when wet. Unattended.

NDERSON 3 SW
00 16 (1) FSS: SANTA BARBARA
Remarks: TV ant SSW.

ICHA
ANT'S AIRPARK 2 SE
700 40 (2)
emarks: P-line E.

RIO INTL See Section IV-A

GE CO See SANTA ANA, ORANGE CO in Section IV-A

ND
CLE M RANCH 3 SW
.0 18 (1) L4 FSS: RED BLUFF

AND-HAIGH FLD 3 SE
:0 H41 (2) L4 S1 F2 U-1 FSS: RED BLUFF
marks: Farmers use SW corner. Unattended. Rnwy 15-33 lgtd.

AND-KIRKWOOD FLD 4 NE
6 H3000 X 3000 FSS: RED BLUFF
marks: P-line E, S.

LLE MUNI 3 SW
9 H60 (2) BL4 S5 F4 U-1 FSS: MARYSVILLE
marks: Rnwys humpy.

D VENTURA CO See Section IV-A

DESERT ARPK 2 NW
4 30 (2) BL4 S3 F4 U-1
FSS: THERMAL (LC EX 9-5155)
marks: FEE. Attended Oct 15 thru May 15. P-line W.
UNICOM operg Sat & Sun from 10:00 until dusk.

PALM SPRINGS MUNI 2 E
448 H70 (2) BL4 S3 F4, JP1 U-1 FSS: THERMAL
Remarks: Hi terrain S.

PALO ALTO Adj E
4 H25 (1) S5 F4 FSS: OAKLAND (DL)
VFR ADV: MOFFETT APP CON 121.3 DEP CON 121.3
Remarks: P-line S. Rgt tfc rnwy 30/8.

PALOMAR See CARLSBAD

PARSONS ARPK See CARPINTERIA

PASO ROBLES CO *IFR* 4 NE
837 H47 (2) BL4 S1 F4 FSS: PASO ROBLES on Fld

PATTERSON 2 W
168 H18 (1) L4 S5 F4 U-1 FSS: STOCKTON
Remarks: 2600' strip avail.

PAYNES CREEK
PONDEROSA SKY RCH 6 E
3420 30 (1)
Remarks: P-line E. Bn dry lgts E end.

PEARBLOSSOM
GREY BUTTE 13 NE
3019 H37 (3)
Remarks: 1000' overrun NW end rnwy 28. Rnwy 7-25 clsd. E end for taxing & parking. Unattended.

PEARCE FLD See LOWER LAKE

PERRIS VALLEY 1 SE
1440 27 (1) F4 U-1

PETALUMA-SKY RANCH 2 NE
79 H19 (1) *L1 S3 F2 U-1 FSS: OAKLAND
Remarks: Shoulders soft.

PHOENIX FLD See FAIR OAKS

PISCHEL RANCH See SANTA YNEZ

PIXLEY 1 SW
257 H21 (1) FSS: BAKERSFIELD
Remarks: Irregular attended 80/87 oct fuel emgcy only.

PLACERVILLE 2 E
2595 H29 (1) BL4 S5 F4 FSS: SACRAMENTO
Remarks: Downdrafts.

PONDEROSA SKY RCH See PAYNES CREEK

PORTERVILLE MUNI 3 SW
444 H60 (2) BL4 S5 F4 U-1 FSS: BAKERSFIELD
Remarks: 1000' overrun W end rnwy 25.

POSO-KERN CO NO. 16 See FAMOSO

PRUNER See EXETER

QUARTZ HILL See LANCASTER

AIRPORT DIRECTORY

QUINCY
GANSNER FLD 1 N
3428 H31 (1) L S5 F4 U-1 FSS: RENO
Remarks: Tfc pat N.

RAMONA 3 W
1393 H40 (1) BL4 S1 F4 U-1 FSS: SAN DIEGO

RANCHO CONEJO See THOUSAND OAKS

RAVENDALE Adj N
5300 H29 (1)
Remarks: P-line S.

RED BLUFF
BIDWELL *IFR* 1 SW
354 H41 (2) BL4 S5 F4 U-1 FSS: RED BLUFF on Fld

REDDING
BENTON FLD 1 SW
719 H24 (1) BL4 S5 F4
FSS: RED BLUFF (LC CH 1-1661)
Remarks: Rgt tfc S. Ruf.

REDDING MUNI *IFR* 6 SE
500 H60 (2) BL4 S5 F4
FSS: RED BLUFF (LC CH 1-1661)

SKY RANCH 4 S
486 H24 (1) L4 S5 F4 U-1
FSS: RED BLUFF (LC CH 1-1661)

REDLANDS 3 NE
1572 H35 (1) BL4 S5 F4 FSS: ONTARIO
Remarks: Rolling. 1025' gravel overrun W end. 150' overrun E end. P-line E.

RED TOP RANCH See EL NIDO

REID HILLVIEW ARPT OF SANTA CLARA COUNTY See SAN JOSE

REIGO RD See VERONA

RIALTO
MORROW FLD 2 S
1100 H30 (1) S1 F4 FSS: ONTARIO
Remarks: P-line ENE, WSW; shoulders soft.

RICHVALE 1 NW
112 H25 (1) *L4 F4 FSS: MARYSVILLE
Remarks: Unattended. For lgts call Lennox 3-1551. Rnwy 02 thres lgts displaced 315 N, restricted by poles.

RIDGECREST
RIDGECREST 1 SW
2300 27 (1) *L4 S3 F4 U-1 FSS: PALMDALE

VALLEY VIEW ARPK 3 SE
2480 26 (2) S4 F4 FSS: PALMDALE

RIO LINDA 1 SE
40 20 (1) F2 FSS: SACRAMENTO
Remarks: Unattended. Rgt tfc rnwy 17.

RIO VISTA MUNI 1 NE
40 H28 (2) L4 S1 F4 FSS: SACRAMEN
Remarks: Unattended.

RIVERSIDE
RIVERSIDE-FLA BOB 3 N
760 H20 (1) L4 S5 F3 FSS: ONTARIO

RIVERSIDE MUNI *IFR* 4 SW
816 H46 (2) BL4 S5 F4 U-1 FSS: ONTARIO
VFR ADV: MARCH APP CON 120.8 122.5R 111.4T DEP CON 125.5 122.5R
Remarks: Rolling lngds to S prohibited on N/S rnwy.

ROBBINS
LAMPSON'S CROP SERVICE Adj W
24 34 (1) *L4 S1 U-1 FSS: MARYSVILLE
Remarks: P-line SSE. No storage. TV ant SE. F2 fuel avbl only. Ben prior request.

ROBLES DEL RIO
CARMEL VALLEY 1 N
450 18 (1) FSS: SALINAS

ROHNERVILLE See FORTUNA

ROSAMOND
CARVER'S RANCH 3 SW
2375 17 (2) FSS: PALMDALE

FISHER RANCH 1 SW
2330 18 (2) FSS: PALMDALE
Remarks: Rgt tfc S. P-line N, S.

ROSAMOND 2 NW
2415 24 (2) *L4 S5 F2 FSS: PALMDALE
Remarks: Attended 24 hrs.

ROY See AMBOY

RUTH 8 SE
2770 H30 (1)
Remarks: Approach up & down river.

SACRAMENTO
JENSEN FLD 3 SW
17 17 (1) S1 F3 FSS: SACRAMENTO (LC GA
Remarks: Rgt tfc S. Unlighted ant N. Soft-wet.

SACRAMENTO MUNI See Section IV-A

NATOMAS 5 NW
20 H25 (1) S3 F4 U-1
FSS: SACRAMENTO (LC GA
Remarks: Rdo twr adjt.

SALINAS MUNI *IFR* 3 SE
84 H50 (3) BL4 S5 F4 FSS: SALINAS

SALTON CITY
SALTON SEA ARPK 1 SW
85 H34 (1) FSS: IMPER
Remarks: Ruf.

AIRPORT DIRECTORY

.YER FARMS See CORCORAN

I ANDREAS
ALAVERAS CO 1 SE
1156 H21 (1) B*L4 S3 F4 FSS: STOCKTON

I ARDO FLD Adj NW
450 20 (1) FSS: SALINAS

I BERNARDINO
RI-CITY *IFR* 3 SE
1044 35 (4) BL4 S5 F4 U-1 FSS: ONTARIO (DL)
VFR ADV: MARCH APP CON 126.5 DEP CON 126.5
Remarks: P-line S, SE; rgt tfc E, S: 2700 E./W strip lgtd.

BORN See MERIDIAN

CARLOS 1 NE
4 H25 (1) BL4 S5 F4 U-1 FSS: OAKLAND (DL)
Remarks: 8' levee S. Clsd to DC-3 and heavier. Rgt turns lngds & tkof to N. Rgt tfc rnwy 30.

DIEGO
.N DIEGO CO (GILLESPIE) See Section IV-A

TL-LINDBERGH FLD See Section IV-A

)NTGOMERY FLD 6 N
423 H34 (2) BL4 S5 F4 U-1
FSS: SAN DIEGO (LC 296-3181)
Remarks: Rgt tfc rnwys 5, 10. Unattended ngts-keep rnwy lgts in sight during night lndgs.

N DIEGO MUNI-BROWN FLD 14 SE
523 H80 (1) BL4 S3 F4 U-1
FSS: SAN DIEGO (LC 296-3181)
Remarks: Rgt tfc rnwy 8. Unattended ngts. Avoid antenna fld NE portion of arpt.

FERNANDO 2 E
1168 H34 (1) L4 S5 F2 U-1 FSS: LOS ANGELES (DL)
Remarks: Rgt tfc to NNE. P-line NNE. Drag strip W. Rnwy lgts prior request after 2400. Rnwy 1 lndg length 3290'. 100' unpaved overrun NE end, 315' paved overrun SW end.

FRANCISCO INTL See Section IV-A

;ER
NDER VALLEY 13 NE
30 26 (1)

JOSE
ID HILLVIEW ARPT OF SANTA CLARA COUNTY 4 SE
34 H27 (1) L4 S5 F4 FSS: OAKLAND (DL)
Remarks: Tfc pat E.

N JOSE See Section IV-A

JUAN CAPISTRANO
PISTRANO 2 SW
0 H10 (1) F2 FSS: SAN DIEGO
Remarks: Short rnwy. Unattended. 400' overrun S end. 20' deep channel N end.

SAN LUIS OBISPO-COUNTY *IFR* 3 S
208 H40 (2) BL4 S5 F4 U-1 FSS: PASO ROBLES
Remarks: P-line E. Auto drag races will be conducted on taxiway paralleling rnwy 10-28, 0900-1700 every fourth Sun of each month. Extreme caution, watch for flagmens instructions to cross taxiway.

SAN MARCOS-VALLEY 1 W
550 17 (1) S5 F4 FSS: SAN DIEGO
Remarks: FEE. Soft when wet.

SANTA ANA ORANGE CO See Section IV-A

SANTA BARBARA MUNI See Section IV-A

SANTA CRUZ
SKY PARK 5 N
530 H20 (1) S5 F4 U-1 FSS: SALINAS
Remarks: Hill NW. Rgt tfc SE.

SANTA MARIA-PUBLIC *IFR* 4 S
258 H57 (1) BL4 S5 F4 U-1 TPA: 1000' MSL
FSS: SANTA BARBARA
VFR ADV: VANDENBURG APP CON 118.3; 122.5R; 118.0; 109.0T

SANTA MONICA MUNI See Section IV-A

SANTA NELLA Adj S
170 H40 (1)
Remarks: P-line E, W.

SANTA PAULA 1 S
240 21 (1) L4 S5 F4 U-1
FSS: SANTA BARBARA (DL)
Remarks: Hi TV ant. Rgt tfc NE. Rnwy lgts by calling 122.8 mc within 3 mi of arpt, lgts remain on for 5-1/2 mins after keying.

SANTA ROSA
CODDINGTOWN 1 NW
140 H32 (1) L4 S5 F4 U-1 FSS: UKIAH (DL)
Remarks: Trees S. Rgt tfc on rnwy 16.

SONOMA CO See Section IV-A

SANTA SUSANA 1 S
965 19 (1) S5 F2 FSS: LOS ANGELES
Remarks: Hill S, E; rgt tfc W. P-line S.

SANTA YNEZ
PISCHEL RANCH 4 NE
850 21 (1) FSS: SANTA BARBARA

SANTA YNEZ Adj SE
643 H28 (1) L4 S1 F4 FSS: SANTA BARBARA

SCHELLVILLE
SONOMA VALLEY 2 SW
5 29 (1) S5 F4 FSS: OAKLAND
Remarks: Irregularly attended.

SCHWARTZ FARMS See STRATFORD

AIRPORT DIRECTORY

SCOTT VALLEY See **FORT JONES**

SEIGLER SPRINGS
HOBERG (CO NO. 3) 1 SE
2150 49 (1) S1 F1
Remarks: 300' hill N end; land from S. Attended May-Oct.

SELMA 2 NW
16 (1) F2 FSS: FRESNO
Remarks: Attended weekends daylgt hrs.

SEQUOIA FLD See **DINUBA**

SHAFTER-KERN CO NO. 14 4 E
425 H45 (4) S5 F4 FSS: BAKERSFIELD
Remarks: Rgt tfc rnwys 12, 16, 25.

SHANNON See **ZENIA**

SHAVER'S SUMMIT See **INDIO**

SHELTER COVE Adj W
50 16 (1) FSS: ARCATA
Remarks: Tfc pat to SW. Downdrafts NW. Use strip. F2 fuel emgcy only.

SHINGLETOWN 3 NE
3842 24 (1) FSS: RED BLUFF

SHOSHONE Adj S
1580 22 (1) S3 F4 FSS: DAGGETT
Remarks: Unattended.

SIERRA SKY PARK See **FRESNO**

SIERRAVILLE 1 SE
4983 32 (1)
Remarks: Unattended.

SISKIYOU COUNTY See **MONTAGUE**

SKYLARK FLD See **ELSINORE**

SKY PARK See **SANTA CRUZ**

SKY RANCH See **REDDING**

SKY SAILING See **FREMONT**

SONOMA CO See **SANTA ROSA, SONOMA CO** in Section IV-A

SONOMA VALLEY See **SCHELLVILLE**

SOUTHARD FLD See **BIEBER**

STERK'S RANCH See **LANCASTER**

STOCKTON METROPOLITAN See Section IV-A

STOVE PIPE WELLS See **DEATH VALLEY**

STRATFORD
NEWTON FLD 2 SW
190 H20 (1) BL4 S3 F2 U-1 FSS: FRESNO
Remarks: P-line N.

SCHWARTZ FARMS 2 S
192 H26 (1) F4 FSS: FRESNO
Remarks: Unattended.

WESTLAKE FARMS 5 SW
192 H21 (1) *L4 FSS: FRESNO
Remarks: Fuel emgcy.

STRATHMORE
ECKERT FLD 1 NE
426 H20 (1) S5 F4 U-1 FSS: BAKERSFIELD
Remarks: Restricted to acft weighing over 6000 lbs.

SUN HILL RANCH See **ADELANTO**

SUNSET BEACH MEADOWLARK 2 E
30 H19 (1) S5 F4 U-1 FSS: LOS ANGELES (DL-
Remarks: P-line WSW.

SUSANVILLE MUNI 4 SE
4146 H30 (1) BL4 S5 F4 U-1 FSS: REN
Remarks: P-line W. Rgt tfc rnwys 24, 29.

SUTTER COUNTY See **YUBA CITY**

SWEETSER See **KNIGHTS LNDG**

TAFT-KERN CO NO. 2 Adj E
875 H40 (3) BL4 F4 U-1 FSS: BAKERSFIEL
Remarks: P-lines WNW; bldgs SW.

TAHOE VALLEY
LAKE TAHOE 2 SE
6263 H85 (1) BL4 F4 U-1
Remarks: Surrounded by mnts. Apchg from the S due to down drafts. Tiedowns avbl.

TEHACHAPI-KERN CO NO. 4 Adj N
4002 H47 (1) S3 F4

THAYER BROS See **GRIMES**

THERMAL *IFR* 2 SW
-117 H50 (2) BL4 S5 F4 U-1 FSS: THERMAL on FI
Remarks: Use rnwys. All acft using facils must not exceed 60,000 GWT. Rnwy lgts on call after 2400.

THORNTON See **ESCALON**

THOUSAND OAKS
RANCHO CONEJO 4 NW
666 H42 (1) L4 S5 F4 U-1 FSS: LOS ANGELES
Remarks: Rgt tfc NW. Ngt lndgs, deer on rnwy. 600' of rnwy 30 is lgtd remainder reflectors.

THREE RIVERS 2 NE
850 H26 (1) FSS: FRESNO

TORRANCE MUNI See Section IV-A

TRACY
NEW JERUSALEM 7 SE
62 H40 (1) FSS: STOCKTON

AIRPORT DIRECTORY

RACY MUNI 3 SW
192 H40 (2) BL4 S5 F4 FSS: STOCKTON
Remarks: Fuel repairs on request ngts. Occasional strong winds.

MONT See DAVIS

CITY See SAN BERNARDINO

ITY CENTER 1 S
2390 H22 (1) FSS: MONTAGUE

NA 4 NE
1716 60 (1) BL2 F4 FSS: PALMDALE
Remarks: Minor airframe repairs. Attended on req.

CKEE-TAHOE 1 SE
900 H60 (1) BL4 F4 U-1 FSS: RENO

RE ARPK 3 SE
270 H33 (1) L4 S5 F4 U-1 FSS: BAKERSFIELD

LAKE MUNI 7 SE
048 H30 (1) L4 S3 F2 FSS: KLAMATH FALLS
Remarks: Irregularly attended days.

OCK
RLOCK ARPK 2 S
00 H20 (1) F2 FSS: STOCKTON
Remarks: Tree obstn NE end. FEE. Unattended.

RLOCK MUNI 8 E
59 H30 (1) S1 FSS: STOCKTON

ITYNINE PALMS
LD 10 W
360 26 (2) S3 FSS: THERMAL

NTYNINE PALMS 5 E
360 54 (1) *L4 S3 F2 FSS: THERMAL

I MUNI *IFR* 1 S
15 H50 (1) BL4 S5 F4 FSS: UKIAH on Fld
emarks: Rgt tfc N. Use rnwys only.

RSITY See DAVIS

ND
BLE *IFR* 2 NE
150 H35 (3) BL4 S5 F4 U-1 FSS: ONTARIO (DL)
FR ADV: MARCH APP CON 122.5R 111.4T DEP CON 122.5R
emarks: ENE blkd. 3530' strip avbl. Lgts on call thru ONT or RIV.

R LAKE
VELLY VALLEY 2 N
00 50 (1)
marks: Deer on fld. Hill, canyon N, NW. Land from S.

VILLE
TREE 2 NE
2 H19 (1) S1 F4 U-1 FSS: SACRAMENTO
marks: Rgt tfc rnwy 19, 2600' strip avail.

VACA-DIXON 5 NE
78 23 (2) S1 F2 FSS: SACRAMENTO
Remarks: P-lines S, SW & NE.

VACAVILLE 2 SW
220 H21 (1) S3 F2 FSS: SACRAMENTO
Remarks: P-line S. 1500' overrun N end.

VALLEY See PERRIS

VALLEY CENTER
JENEWEIN 3 E
1500 10 (1) FSS: SAN DIEGO
Remarks: P-line West of rnwy.

VALLEY VIEWARPK See RIDGECREST

VANDERFORD RANCH CO See YUBA CITY

VAN NUYS See LOS ANGELES, VAN NUYS in Section IV-A

VENTURA CO See OXNARD, VENTURA CO in Section IV-A

VERONA
REIGO RD 4 SE
15 H26 (1) FSS: SACRAMENTO

VIDAL 1 S
590 22 (1)

VIDAL JUNCTION Adl S
920 21 (1)

VISALIA
GREEN ACRES 1 NW
317 28 (1) S4 F4 U-1 FSS: FRESNO
Remarks: P-line NW.

VISALIA MUNI 4 W
292 H52 (1) BL4 S5 F4 U-1 FSS: FRESNO
Remarks: 718' overrun at NW end rnwy.

WALNUT GROVE 2 SW
00 26 (1) S1 F2 FSS: SACRAMENTO
Remarks: P-line E. Unattended.

WALTERS RANCH See NEEDLES

WARD FLD See GASQUET

WASCO-KERN CO NO. 5 2 NW
313 H34 (2) S1 FSS: BAKERSFIELD

WATSONVILLE MUNI 3 NW
160 H45 (2) *L4 S5 F4 U-1 FSS: SALINAS
Remarks: Bcn prior req. TV ant N & W.

WATTS See WOODLAND

WEAVERVILLE 1 NE
2300 29 (1) S1 F4 U-1 FSS: RED BLUFF
Remarks: Land N, tkof S.

AIRPORT DIRECTORY

SCOTT VALLEY See **FORT JONES**

SEIGLER SPRINGS
HOBERG (CO NO. 3) 1 SE
2150 49 (1) S1 F1
Remarks: 300' hill N end; land from S. Attended May-Oct.

SELMA 2 NW
16 (1) F2 FSS: FRESNO
Remarks: Attended weekends daylgt hrs.

SEQUOIA FLD See **DINUBA**

SHAFTER-KERN CO NO. 14 4 E
425 H45 (4) S5 F4 FSS: BAKERSFIELD
Remarks: Rgt tfc rnwys 12, 16, 25.

SHANNON See **ZENIA**

SHAVER'S SUMMIT See **INDIO**

SHELTER COVE Adj W
50 16 (1) FSS: ARCATA
Remarks: Tfc pat to SW. Downdrafts NW. Use strip. F2 fuel emgcy only.

SHINGLETOWN 3 NE
3842 24 (1) FSS: RED BLUFF

SHOSHONE Adj S
1580 22 (1) S3 F4 FSS: DAGGETT
Remarks: Unattended.

SIERRA SKY PARK See **FRESNO**

SIERRAVILLE 1 SE
4983 32 (1)
Remarks: Unattended.

SISKIYOU COUNTY See **MONTAGUE**

SKYLARK FLD See **ELSINORE**

SKY PARK See **SANTA CRUZ**

SKY RANCH See **REDDING**

SKY SAILING See **FREMONT**

SONOMA CO See **SANTA ROSA, SONOMA CO** in Section IV-A

SONOMA VALLEY See **SCHELLVILLE**

SOUTHARD FLD See **BIEBER**

STERK'S RANCH See **LANCASTER**

STOCKTON METROPOLITAN See Section IV-A

STOVE PIPE WELLS See **DEATH VALLEY**

STRATFORD
NEWTON FLD 2 SW
190 H20 (1) BL4 S3 F2 U-1 FSS: FRESNO
Remarks: P-line N.

SCHWARTZ FARMS 2 S
192 H26 (1) F4 FSS: FRESNO
Remarks: Unattended.

WESTLAKE FARMS 5 SW
192 H21 (1) *L4 FSS: FRESNO
Remarks: Fuel emgcy.

STRATHMORE
ECKERT FLD 1 NE
426 H20 (1) S5 F4 U-1 FSS: BAKERSFIELD
Remarks: Restricted to acft weighing over 6000 lbs.

SUN HILL RANCH See **ADELANTO**

SUNSET BEACH MEADOWLARK 2 E
30 H19 (1) S5 F4 U-1 FSS: LOS ANGELES (DL-
Remarks: P-line WSW.

SUSANVILLE MUNI 4 SE
4146 H30 (1) BL4 S5 F4 U-1 FSS: RENO
Remarks: P-line W. Rgt tfc rnwys 24, 29.

SUTTER COUNTY See **YUBA CITY**

SWEETSER See **KNIGHTS LNDG**

TAFT-KERN CO NO. 2 Adj E
875 H40 (3) BL4 F4 U-1 FSS: BAKERSFIELD
Remarks: P-lines WNW; bldgs SW.

TAHOE VALLEY
LAKE TAHOE 2 SE
6263 H85 (1) BL4 F4 U-1
Remarks: Surrounded by mnts. Apchg from the S due to down drafts. Tiedowns avbl.

TEHACHAPI-KERN CO NO. 4 Adj N
4002 H47 (1) S3 F4

THAYER BROS See **GRIMES**

THERMAL *IFR* 2 SW
-117 H50 (2) BL4 S5 F4 U-1 FSS: THERMAL on FI
Remarks: Use rnwys. All acft using facils must not exceed 60,000 GWT. Rnwy lgts on call after 2400.

THORNTON See **ESCALON**

THOUSAND OAKS
RANCHO CONEJO 4 NW
666 H42 (1) L4 S5 F4 U-1 FSS: LOS ANGELES
Remarks: Rgt tfc NW. Ngt lndgs, deer on rnwy. 600' of rnwy 30 is lgtd remainder reflectors.

THREE RIVERS 2 NE
850 H26 (1) FSS: FRESNO

TORRANCE MUNI See Section IV-A

TRACY
NEW JERUSALEM 7 SE
62 H40 (1) FSS: STOCKTON

AIRPORT DIRECTORY

RACY MUNI 3 SW
192 H40 (2) BL4 S5 F4 FSS: STOCKTON
Remarks: Fuel repairs on request ngts. Occasional strong winds.

MONT See DAVIS

CITY See SAN BERNARDINO

IITY CENTER 1 S
2390 H22 (1) FSS: MONTAGUE

NA 4 NE
1716 60 (1) BL2 F4 FSS: PALMDALE
Remarks: Minor airframe repairs. Attended on req.

:KEE-TAHOE 1 SE
5900 H60 (1) BL4 F4 U-1 FSS: RENO

\RE ARPK 3 SE
270 H33 (1) L4 S5 F4 U-1 FSS: BAKERSFIELD

:LAKE MUNI 7 SE
048 H30 (1) L4 S3 F2 FSS: KLAMATH FALLS
Remarks: Irregularly attended days.

.OCK
RLOCK ARPK 2 S
00 H20 (1) F2 FSS: STOCKTON
Remarks: Tree obstn NE end. FEE. Unattended.

RLOCK MUNI 8 E
59 H30 (1) S1 FSS: STOCKTON

ITYNINE PALMS
LD 10 W
360 26 (2) S3 FSS: THERMAL

:NTYNINE PALMS 5 E
960 54 (1) *L4 S3 F2 FSS: THERMAL

I MUNI *IFR* 1 S
15 H50 (1) BL4 S5 F4 FSS: UKIAH on Fld
emarks: Rgt tfc N. Use rnwys only.

:RSITY See DAVIS

ND
ILE *IFR* 2 NE
450 H35 (3) BL4 S5 F4 U-1 FSS: ONTARIO (DL)
FR ADV: MARCH APP CON 122.5R 111.4T DEP CON 122.5R
emarks: ENE blkd. 3530' strip avbl. Lgts on call thru ONT or RIV.

R LAKE
.VELLY VALLEY 2 N
000 50 (1)
marks: Deer on fld. Hill, canyon N, NW. Land from S.

VILLE
TREE 2 NE
2 H19 (1) S1 F4 U-1 FSS: SACRAMENTO
marks: Rgt tfc rnwy 19, 2600' strip avail.

VACA-DIXON 5 NE
78 23 (2) S1 F2 FSS: SACRAMENTO
Remarks: P-lines S, SW & NE.

VACAVILLE 2 SW
220 H21 (1) S3 F2 FSS: SACRAMENTO
Remarks: P-line S. 1500' overrun N end.

VALLEY See PERRIS

VALLEY CENTER
JENEWEIN 3 E
1500 10 (1) FSS: SAN DIEGO
Remarks: P-line West of rnwy.

VALLEY VIEWARPK See RIDGECREST

VANDERFORD RANCH CO See YUBA CITY

VAN NUYS See LOS ANGELES, VAN NUYS in Section IV-A

VENTURA CO See OXNARD, VENTURA CO in Section IV-A

VERONA
REIGO RD 4 SE
15 H26 (1) FSS: SACRAMENTO

VIDAL 1 S
590 22 (1)

VIDAL JUNCTION Adj S
920 21 (1)

VISALIA
GREEN ACRES 1 NW
317 28 (1) S4 F4 U-1 FSS: FRESNO
Remarks: P-line NW.

VISALIA MUNI 4 W
292 H52 (1) BL4 S5 F4 U-1 FSS: FRESNO
Remarks: 718' overrun at NW end rnwy.

WALNUT GROVE 2 SW
00 26 (1) S1 F2 FSS: SACRAMENTO
Remarks: P-line E. Unattended.

WALTERS RANCH See NEEDLES

WARD FLD See GASQUET

WASCO-KERN CO NO. 5 2 NW
313 H34 (2) S1 FSS: BAKERSFIELD

WATSONVILLE MUNI 3 NW
160 H45 (2) *L4 S5 F4 U-1 FSS: SALINAS
Remarks: Bcn prior req. TV ant N & W.

WATTS See WOODLAND

WEAVERVILLE 1 NE
2300 29 (1) S1 F4 U-1 FSS: RED BLUFF
Remarks: Land N, tkof S.

AIRPORT DIRECTORY

WEED 1 NW
2938 H34 (1) FSS: MONTAGUE

WESTLAKE FARMS See STRATFORD

WESTWOOD 1 W
5121 H37 (1)

WHITEMAN ARPK See LOS ANGELES

WM J FOX See LANCASTER

WILLIAMS 1 NE
68 25 (1) S1 F2 FSS: MARYSVILLE
Remarks: P-line S. Soft when wet.

WILLITS MUNI-ELLIS FLD 3 NW
2054 H30 (1) F2, 4 FSS: UKIAH
Remarks: Attended days.

WILLOWS-GLENN COUNTY 1 SW
139 H45 (2) BL2 S5 F4 U-1 FSS: MARYSVILLE (DL)
Remarks: Press unicom mike button five times to activate rnwy lgts.

WINTERS-DAVIS
YOLO CO INTL 6 NE
98 H60 (1) U-1 FSS: SACRAMENTO

WONDER VALLEY See SANGER

WOODLAKE 1 S
426 H23 (1) L4 F4 FSS: FRESNO
Remarks: P-line N. Unattended.

WOODLAND
WATTS 5 W
121 H32 (2) S5 F4 U-1 FSS: SACRAMENTO
Remarks: Clsd ngts. 3700′ strip avail.

YOLO CO INTL See WINTERS-DAVIS

YUBA CITY
SUTTER COUNTY Adj SE
58 H20 (1) S5 F4 FSS: MARYSVILLE (LC SH 2-1449)
Remarks: Rgt tfc rnwy 35.

VANDERFORD RANCH CO 6 SW
42 H15 (1) *L4 F4 FSS: MARYSVILLE
Remarks: 2500′ strip avbl.

YUBA CO See MARYSVILLE

YUCCA VALLEY
GIANT ROCK 14 NE
2820 57 (2) S3 F2 FSS: THERMAL

YUCCA VALLEY 2 NE
3220 H39 (1) L4 S3 F4 FSS: THERMAL
Remarks: P-line E. Rgt tfc E.

ZENIA
SHANNON 6 SE
2450 24 (1)

COLORADO

AKRON
GEBAUERS RANCH 7 NE
4540 31 (2) L4 F4 FSS: AKRON

WASHINGTON CO *IFR* 1 N
4694 H41 (1) BL4 S5 F4 FSS: AKRON on Fi

ALAMOSA MUNI *IFR* 2 S
7535 H59 (1) BL4 S3 F4 U-1 FSS: TRINIDAD
Remarks: NE/SW rnwy ruf.

ALEXANDER See SALIDA

AROYA
MAURER RANCH 1 E
4550 32 (2) L4 S1 F4 FSS: LA JUNTA
Remarks: Unattended. Fuel emgcy only lgts avbl by circling fld.

ARTESIA Adj E
5935 41 (1) FSS: GRAND JUNCTION
Remarks: P-line E.

ASPEN
SARDY FLD 3 NW
7773 H60 (1) F4 U-1 FSS: EAGLE
Remarks: Aspen, Sardy Fld–P-line NW; hill SW. Land SSE. take-off NNW. Due hillside background acft on final apch invisible to pilot in take-off position; avoid lndg apchs when acft on rnwy or climb out. After take-off rnwy 33-acft shall not turn more than 30° to rgt until 2 mi from end of rnwy. Acft equipped to guard 122.8 mc must do so when operg on arpt and while in tdc patn. Clsd ngts excpt on prior approval of arpt mgr. Overrun each end rnwy 15-33.

AURORA
C & S AIRSTRIP 7 SE
5750 30 (1) FSS: DENVER (LC DU 8-42
Remarks: P-line W and S.

EAST COLFAX 3 W
5650 50 (2) S5 F4 FSS: DENVER (LC DU 8-42
Remarks: P-lines N, NW. Soft when wet.

BARNETTS AIR FLD See EATON

BLAKE FLD See DELTA

BLANCA 2 SW
7730 58 (3) FSS: TRINIDAD
Remarks: P-line S.

BONNY DAM See HALE

BOULDER MUNI 3 NE
5288 H41 (1) BL4 S5 F4 U-1 FSS: DENVER (D.
Remarks: Under calm winds, lnd & tkof to the E.

BOWMAN See WRAY

BRADLEY RANCH See HOOPER

AIRPORT DIRECTORY

RIGGSDALE
CASS FIELD 1 SW
4800 39 (2)
Remarks: P-line NE.

ROADACRE See VINELAND

BROOMFIELD
JEFFERSON CO 2 SW
5648 H60 (2) BL4 S5 F4 U-1 FSS: DENVER (DL)
Remarks: UNICOM prior entering tfc patn.

BUSH MUNI 2 NE
4280 H31 (1) L4 FSS: AKRON
Remarks: TV ant SW.

BUTTE STRIP See TOWNER

BUENA VISTA
BUENA VISTA MUNI 2 SW
8080 36 (3) FSS: PUEBLO
Remarks: P-line SE & NE.

CHUETTE FLD 2 S
7980 32 (2) U-1 FSS: PUEBLO

BURLINGTON MUNI 1 W
4160 H37 (1) L4 S5 F4 FSS: GOODLAND
Remarks: P-line N, S, SE, SW, NW.

BUS AIRSTRIP See AURORA

CANON CITY
FREMONT COUNTY 6 E
5450 H54 (1) BL4 F3 FSS: PUEBLO

CAS FIELD See BRIGGSDALE

CASTLE ROCK
DENVER-DOUGLAS 3 NW
6070 40 (1) F4 FSS: DENVER
Remarks: P-line both ends rnwy. Attended days.

CENTER
BEACH 4 NE
7600 33 (1) F2 U-1 FSS: TRINIDAD
Remarks: P-line E.

CHANOWETH See LASTCHANCE

CHRISTMAN FLD See FT COLLINS

COLORADO SPRINGS
PETERSON FLD See Section IV-A

COLORADO MOUNTAIN 5 NE
5985 53 (3) S5 FSS: DENVER

COLUMBINE See LITTLETON

CORTEZ-MONTEZUMA CO 3 SW
5912 H59 (1) BL4 S5 F4 U-1 FSS: FARMINGTON

CRAIG
CRAIG MUNI 2 SE
6197 H56 (1) L4 S3 F4 U-1 FSS: EAGLE
Remarks: Ditch. Use strip.

MESA VIEW RANCH 16 N
6900 31 (2) S3 F2 FSS: EAGLE
Remarks: Unattended. Skis winters.

CREEDE
CREEDE MUNI 2 SE
8700 30 (1) FSS: TRINIDAD
Remarks: P-line N. Winters-ski acft only, land at own risk.

HERMIT LAKES 13 SW
9847 53 (1) FSS: TRINIDAD

CROSSON FLD See STERLING

DEL NORTE
DEL NORTE MUNI 2 N
7900 60 (3) FSS: TRINIDAD
Remarks: Hills SW, W & N.

SCHEEL RANCH 6 NE
7600 104 (1) S3 F2 FSS: TRINIDAD
Remarks: P-line E & W.

DELTA
BLAKE FLD 2 N
5166 H45 (1) BL4 F2 FSS: GRAND JUNCTION

DENVER
SKY RANCH 10 E
5478 40 (3) L4 S5 F4 U-1 VFR ADV: For APP CON, DEP CON See DENVER, STAPLETON AIR FLD in Section IV-A FSS: DENVER (LC DU 8-4279)
Remarks: Rgt tfc strips 26, 30, 36. Ditch W.

STAPLETON AIRFLD See Section IV-A

DENVER-DOUGLAS See CASTLE ROCK

DICKSON STRIP See VERNON

DILLINGHAM RANCH See THATCHER

DON SAMMONS RANCH See KIM

DURANGO
LAPLATA FLD *IFR* 10 SE
6684 H72 (1) BL4 S5 F4 U-1 FSS: FARMINGTON

EADS MUNI 1 W
4250 32 (2) F2 FSS: LA JUNTA
Remarks: Fuel emgcy only.

EAGLE-COUNTY 4 SW
6539 50 (1) BL2 F4 FSS: EAGLE on Fld

EAST COLFAX See AURORA

AIRPORT DIRECTORY

EATON
BARNETTS AIR FLD 3 SE
4750 24 (1)
Remarks: Bldg S.

ELIZABETH
PINE VIEW 1 S
6520 44 (1) FSS: DENVER

FLAGLER AVIATION SERVICE 1 S
4975 39 (3) S3 F2 FSS: AKRON
Remarks: P-line E. Attended days.

FLINT STRIP See HARTMAN

FT COLLINS
CHRISTMAN FLD 3 NW
5160 H40 (1) BL2 S5 F4 U-1 FSS: DENVER

FORT MORGAN MUNI 5 N
4550 H37 (1) L4 S1 F4 U-1 FSS: AKRON

FOUNTAIN
PIKES PEAK 3 N
5820 45 (1) F3 FSS: PUEBLO (LC 948-3301)
Remarks: Arpt lctd in S. apch to Peterson Fld N/S rnwy.

FOWLER 4 S
4428 26 (2) F2 FSS: LA JUNTA

FRAZER RANCH See LAST CHANCE

FREMONT COUNTY See CANON CITY

GARFIELD COUNTY See RIFLE

GATEWAY
HUBBARD 1 SW
4670 26 (1)
Remarks: Obstns S and W.

GEBAUERS RANCH See AKRON

GLENDEVEY
RAINBOW RIVER RANCH 5 N
8000 63 (2)
Remarks: Peaks N. Hump S. Unattended.

GLENWOOD SPRINGS MUNI 2 S
5916 H33 (1) S5 F4 FSS: EAGLE
Remarks: Rgt tfc S.

GRANBY-GRAND CO 1 NE
8203 53 (1) U-1 FSS: EAGLE

GRAND JUNCTION WALKER FLD See Section IV-A

GREELEY
HERREN-STRONG 2 N
4650 25 (1) FSS: DENVER
Remarks: P-line apch rnwy 10.

WELD CO MUNI 3 E
4648 H50 (1) BL4 S5 F4 FSS: DENVER

GRIFFIN FLD See WALSH

GUNNISON
GUNNISON COUNTY 1 SW
7667 H60 (1) S5 F4 FSS: GRAND JUNCTION
Remarks: Rgt tfc tk-offs rnwy 6, 17: hi terrain all quads.

QUARTER CIRCLE-CIRCLE 25 SE
9440 37 (1) FSS: GRAND JUNCTION
Remarks: Closed winters.

HADACHEK See VONA

HALE
BONNY DAM 2 W
3780 35 (1) FSS: GOODLAND
Remarks: P-line SE.

HARTMAN
FLINT STRIP Adj S
3610 23 (2)

HAXTUN MUNI 2 SE
4028 26 (2)

HAYDEN MUNI 2 S
6410 40 (1)
Remarks: Slick when wet.

HERMIT LAKES See CREEDE

HERREN-STRONG See GREELEY

HIDDEN VALLEY RANCH See THATCHER

HOLLY MUNI 1 S
3390 25 (2) S5 F2 FSS: LA JUNTA
Remarks: P-line W.

HOLYOKE 1 SE
3720 26 (2) L4 S3 F4 FSS: IMPERIAL
Remarks: P-line NW, S. Unattended.

HOOPER
BRADLEY RANCH 3 SE
7550 39 (1) FSS: TRINIDAD
Remarks: P-lines E, W.

HOPKINS MONTROSE CO See NUCLA

HUBBARD See GATEWAY

HUGO MUNI 2 NW
5128 40 (2) FSS: AKRON
Remarks: Rnwy ruf.

IDALIA
LANGENDOERFER 4 SW
4050 26 (1) F4

IRON SPRINGS See TIMPAS

JACKSON COUNTY See WALDEN

AIRPORT DIRECTORY

ROSO Adj W
7576 24 (1)

FFERSON CO See BLOOMFIELD

INSON FLD See WALSENBURG

ESBURG MUNI 2 SW
3520 H37 (1) F2 FSS: AKRON
Remarks: P-line NW. Drag races wkends & holidays.

ON SAMMONS RANCH 6 NE
5520 27 (3) F2 FSS: LA JUNTA

AMMONS RANCH 9 NE
5300 26 (3) S3 FSS: LA JUNTA
Remarks: P-line NE.

CARSON
RADING POST 1 NW
4290 33 (3) F2 FSS: LA JUNTA
Remarks: P-line S.

LLERUP See LINDON

MMLING 1 E
7411 H55 (1) S1 F2 FSS: EAGLE
Remarks: Unattended.

EL-STRONG See PLATTEVILLE

RD
OMBLE 5 SE
3800 35 (1)

UNTA MUNI 3 N
4238 H83 (2) BL4 S5 F4 FSS: LA JUNTA on Fld

E CITY
ANSON RANCH 3 N
8700 40 (1)

E COUNTY See LEADVILLE

AR MUNI 3 W
3673 H48 (1) BL4 S5 F4 FSS: LA JUNTA
Remarks: P-line S.

GENDOEFER See IDALIA

LATA FLD See DURANGO

ANIMAS 1 S
3900 25 (1) S5 F4 FSS: LA JUNTA
Remarks: P-line S.

ANIMAS CO See TRINIDAD

CHANCE
ENOWETH 5 N
1700 31 (2)
Remarks: Rough.

FRAZIER RANCH 6 SW
5000 34 (1)

LA VETA MUNI 1 N
7154 58 (1) F2 U-1 FSS: TRINIDAD
Remarks: Unattended.

LEACH See CENTER

LEADVILLE
LAKE COUNTY 2 SW
9927 H48 (1) FSS: EAGLE

LIMON MUNI 1 NE
5365 40 (3) L4 S1 F4 FSS: DENVER
Remarks. Soft when wet. Unattended. Rnwy 34 threshold displaced 300'.

LINDEN
WARD RANCH 10 NW
4700 25 (1)

LINDON
KJELLERUP 10 NE
4700 33 (1) L4 F4

RODERICK 4 NE
4900 26 (2)

LITTLETON
COLUMBINE 5 SW
6700 40 (1) BL4 S5 U-1
FSS: DENVER (LC DU 8-4279)

LITTLETON See SEDALIA

LONGMONT MUNI 3 W
5047 H42 (1) BL4 S5 F4 FSS: DENVER

LOVELAND MUNI 2 NW
5078 29 (2) F4 FSS: DENVER

MANZANOLA 3 NW
4257 26 (1) F2 FSS: LA JUNTA

MAURER RANCH See AROYA

MEEKER 1 E
6378 H45 (1) S1 F4 U-1 FSS: EAGLE

MESA VIEW RANCH See CRAIG

MONTE VISTA
MOVIE MANOR 3 W
7770 50 (2) FSS: TRINIDAD
Remarks: Movie screen in apch rnwy 19.

SAN LUIS VALLEY 5 SE
7608 63 (1) B*L4 S5 F4 FSS: TRINIDAD

MONTEZUMA CO See CORTEZ

AIRPORT DIRECTORY

MONTROSE COUNTY 1 NW
5758 H70 (1) BL4 S3 F4 FSS: GRAND JUNCTION
Remarks: P-line SW. Clsd to over 60,000 lbs.

MOVIE MANOR See MONTE VISTA

NEWMAN RANCH LANDING AREA See WALSH

NEW RAYMER
WIRTH FLD 6 S
4785 35 (2) F2
Remarks: Flares avbl emgcy. Steep grade toward NW end.

NORTH FORK VALLEY See PAONIA

NORWOOD 2 NE
7250 27 (1) L FSS: GRAND JUNCTION
Remarks: Rolling. Slippery when wet.

NUCLA
HOPKINS MONTROSE CO 2 S
5910 H46 (1) BL4 S1 F4 U-1
FSS: GRAND JUNCTION

ORDWAY 1 S
4300 39 (1) FSS: LA JUNTA

OTIS
STANFIELD 3 NE
4310 25 (3) F2
Remarks: P-line W. Irregularly attended.

PAONIA
NORTH FORK VALLEY 3 SW
5850 H36 (1) FSS: GRAND JUNCTION

PETERSON FLD See COLORADO SPRINGS, PETERSON FLD in Section IV-A

PIKES PEAK See FOUNTAIN

PINE VIEW See ELIZABETH

PLATTEVILLE
KUGEL-STRONG 3 E
4950 H31 (1)
Remarks: P-line N.

POGOSA SPRINGS
STEVENS FLD 3 NW
7640 42 (1) F2 FSS: TRINIDAD
Remarks: Unattended.

PUEBLO-MEMORIAL See Section IV-A

QUARTER CIRCLE-CIRCLE See GUNNISON

RAINBOW RIVER RANCH See GLENDEVEY

RANGELY 3 E
5270 H45 (1) FSS: GRAND JUNCTION

RIFLE
GARFIELD COUNTY 3 E
5529 H51 (1) S1 F4 FSS: EAGLE
Remarks: Rgt tfc on rnwy 25. Soulders ruf.

RIVERSIDE 1 S
5293 38 (1) F2 FSS: EAGLE
Remarks: Bridge E. Unattended.

RIVERSIDE See RIFLE

ROCKY FORD
TODD 3 W
4370 30 (1) S1 F2 FSS: LA JUNTA
Remarks: Unattended.

ROCKY MOUNTAIN See COLORADO SPRINGS

RODERICK See LINDON

ROMER See HOLLY

SALIDA
ALEXANDER 2 W
7487 60 (1) FSS: PUEBLO

SALIDA 3 W
7484 36 (1) S1 F3 FSS: PUEBLO
Remarks: P-lines W. Unattended.

SAN LUIS 1 W
7900 40 (1)

SAN LUIS VALLEY See MONTE VISTA

SARDY FLD See ASPEN

SCHEEL RANCH See DEL NORTE

SCHUETTE FLD See BUENA VISTA

SEDALIA
LITTLETON 2 NW
5680 24 (1) S5 F2 FSS: DENVER

SILVER CLIFF
VALLEY 1 SE
8000 44 (1) FSS: PUEBLO
Remarks: Rnwy ends soft.

SIPPLE See YUMA

SKYLINE AIRWAYS INC See WATKINS

SKY RANCH See DENVER

SPRINGFIELD 3 N
4410 31 (3) L4 F2 FSS: LA JUNTA
Remarks: P-lines W.

STANFIELD See OTIS

STAPLETON AIRFLD See DENVER, STAPLETON AIRFLD in Section IV-A

AIRPORT DIRECTORY

EAMBOAT SPRINGS
STEAMBOAT SPRINGS 2 NW
6879 33 (1) F2 FSS: EAGLE

STEAMBOAT SPRINGS MUNI 2 NW
6879 H33 (1) F2 FSS: EAGLE

ERLING
CROSSON FLD 2 W
4037 H47 (1) BL4 S5 F4 U-1 FSS: AKRON
Remarks: Fences apch rnwys 3 and 21.

EVENS FLD See POGOSA SPRINGS

JLTS See VERNON

ANSON RANCH See LAKE CITY

ATCHER
ILLINGHAM RANCH 16 SE
5125 42 (1) FSS: TRINIDAD
Remarks: Rdo twr SW.

IDDEN VALLEY RANCH 9 W
5475 42 (2) FSS: TRINIDAD

PAS
ON SPRINGS 10 SW
4830 28 (1) F2

D See ROCKY FORD

NER
UDDE STRIP 3 W
4000 35 (1) FSS: LA JUNTA
Remarks: Trees apch rnwy 35. 100/130 fuel in emgcy.

DING POST See KIT CARSON

IDAD
AS ANIMAS CO 9 NE
5761 H55 (2) BL4 F4 FSS: TRINIDAD on Fld
Remarks: Rnwy 9-27 rstd to 10,000 lbs gross wt. Use rnwys.

VANADIUM See URAVAN

VAN
S. VANADIUM 3 NE
5840 37 (2) *L4 FSS: GRAND JUNCTION
Remarks: Unattended.

LEY See SILVER CLIFF

NON
CKSON STRIP 4 SW
3950 37 (2) F4 FSS: AKRON
Remarks: P-lines S. Ditches both sides. Trees NW.

ULTS 1 W
3950 24 (1) FSS: AKRON
Remarks: P-line E. Land at own risk.

LAND
OADACRE 10 S
3925 21 (1) FSS: PUEBLO
Remarks: Slippery when wet.

VONA
HADACHEK 9 S
4600 26 (1) F2 FSS: AKRON

WALDEN-JACKSON COUNTY 1 NE
8144 59 (3) L4 F4 FSS: EAGLE
Remarks: Do not fly over mink farm 2 mi SW. Attended on call.

WALKER FLD See GRAND JUNCTION, WALKER FLD in Section IV-A

WALSENBURG
JOHNSON FLD 5 N
6042 53 (2) FSS: TRINIDAD

WALSH
GRIFFIN FLD 1 N
3950 32 (2) S1 F4 FSS: LA JUNTA
Remarks: Bldgs & P-lines S, N.

NEWMAN RANCH LANDING AREA 10 SE
3750 26 (2) F3 U-1 FSS: LA JUNTA
Remarks: Unattended. Windmill and P-line W.

WARD RANCH See LINDEN

WASHINGTON CO See AKRON

WATKINS
SKYLINE AIRWAYS INC 2 NW
5480 52 (3) F2, 4 FSS: DENVER

WELD CO MUNI See GREELEY

WHOMBLE See LAIRD

WIRTH FLD See NEW RAYMER

WRAY
BOWMAN 6 SW
3860 34 (1) L4 F3 U-1 FSS: AKRON
Remarks: Unattended. Bcn operg 1800-2300.

WRAY MUNI 1 NW
3662 39 (2) L4 S1 F4 U-1 FSS: AKRON
Remarks: P-line NW. Attended on call.

YUMA
SIPPLE 17 NE
4025 27 (2) F4 FSS: AKRON
Remarks: Unattended.

YUMA MUNI 1 SE
4150 32 (3) L4 F2 U-1 FSS: AKRON
Remarks: P-line W, S. Unattended.

CONNECTICUT

ANSONIA 1 NE
440 17 (1) S5 F2 FSS: WINDSOR LOCKS

BALCH'S See EAST WINDSOR

AIRPORT DIRECTORY

BETHANY 1 NE
750 24 (1) S5 F4 U-1 FSS: WINDSOR LOCKS

BRADLEY FLD See WINSOR LOCKS, BRADLEY FLD in Section IV-A

BRAINARD FIELD See HARTFORD

BRIDGEPORT MUNI See Section IV-A

BURLINGTON
JOHNNYCAKE 2 W
1035 24 (1) *L1 F2 U-1 FSS: WINDSOR LOCKS

CANDLELIGHT FARMS See NEW MILFORD

CHESTER 3 SW
415 H22 (1) *L4 S1 F4 U-1 FSS: WINDSOR LOCKS
Remarks: Used by fixed wing acft and helicopters.

DANBURY MUNI 3 SW
457 H44 (2) BL4 S5 F4 U-1
FSS: POUGHKEEPSIE (LC PI 3-9424)
Remarks: 4122' rnwy 8 avbl ngt lndgs.

DANIELSON 2 NW
239 H27 (1) S5 F2 FSS: WINDSOR LOCKS
Remarks: Fee for revenue producing acft.

EAST HAMPTON
LINDQUIST 1 NW
750 H18 (1) FSS: WINDSOR LOCKS
Remarks: Land to N.

EAST HARTFORD RENTSCHLER See Section IV-A

EAST WINDSOR
BALCH'S 1 NW
23 15 (1) S3 FSS: WINDSOR LOCKS

GRISWOLD See MADISON

GROTON
TRUMBULL *IFR* 2 SE
10 H50 (3) BL4 S5 F4 U-1
FSS: PROVIDENCE (LC GI 3-3245)
VFR ADV QUONSET POINT APP CON 118.6 122.5R; DEP CON 126.2 124.5 123.8
Remarks: P-line NW.

HARTFORD
BRAINARD FLD *IFR* 2 SE
18 H35 (1) BL4 S3 F4 U-1 FSS: WINDSOR LOCKS (DL)
VFR ADV: For APP CON, DEP CON See WINDSOR LOCKS/ BRADLEY FLD in Section IV-A
Remarks: Rnwy 20 threshold displaced 555'. P-line W.

JOHNNYCAKE See BURLINGTON

LESNEWSKI FIELD See MARLBOROUGH

LINDQUIST See EAST HAMPTON

MADISON
GRISWOLD 2 SE
15 18 (2) S5 F4 FSS: WINDSOR LOCKS

MARLBOROUGH
LESNEWSKI FLD 3 SE
540 16 (1) F2 FSS: WINDSOR LOCKS

MERIDEN MARKHAM 3 SW
102 H21 (1) BL2 S5 F4 U-1 FSS: WINDSOR LOCKS
Remarks: P-line S. 3500' strip avbl. Use surfaces and twys only.

MONROE 1 S
620 20 (1) S3 F2 FSS: WINDSOR LOCKS
Remarks: Attended SR-SS wkends only.

NEW HAVEN
TWEED-NEW HAVEN *IFR* 3 SE
15 H48 (2) BL4, 11 S5 F4 U-1 FSS: WINDSOR LOCKS
VFR ADV: For APP CON, DEP CON See WHITE PLAINS WESTCHESTER CO, NEW YORK in Section IV-A
Remarks: Code bcn "NH". Fee for revenue producing acft and all acft lndg ngts. Ctc unicom for rnwy lgts.

NEW LONDON See WATERFORD

NEW MILFORD
CANDLELIGHT FARMS 2 W
675 21 (1) S1 FSS: POUGHKEEPSIE
Remarks: Attended week ends dalgt hrs Mar-Nov.

PLAINVILLE
ROBERTSON FLD 2 N
200 26 (1) *L4 S5 F4 FSS: WINDSOR LOCK
Remarks: Avoid flgt over chicken farm 1000'N.

RENTSCHLER See EAST HARTFORD, RENTSCHLER in Section IV-A

ROBERTSON FIELD See PLAINVILLE

SIMSBURY 2 NE
210 18 (1) S5 F4 U-1 FSS: WINDSOR LOCKS
Remarks: N 200' rnwy soft sand.

SKYLARK'S AIRPARK See WAREHOUSE POINT

SOUTH WOODSTOCK
WOODSTOCK 2 SE
465 18 (1) S5 F2 U-1 FSS: WINDSOR LOCKS

TRUMBULL See GROTON

TWEED-NEW HAVEN See NEW HAVEN

WAREHOUSE POINT
SKYLARK'S ARPK 2 E
120 21 (1) S5 F2 FSS: WINDSOR LOCKS

WATERBURY 4 N
850 20 (2) S3 F2 FSS: WINDSOR LOCKS

AIRPORT DIRECTORY

.TERFORD
NEW LONDON 2 NW
60 H19 (2) BL4 S5 F4
FSS: PROVIDENCE (LC GI 3-3245)

.LIMANTIC
NDHAM 2 NE
244 H43 (3) BL4 S5 F4 FSS: WINDSOR LOCKS
VFR ADV QUONST POINT APP CON 118.6; DEP CON 124.5

DHAM See WILLIMANTIC

SOR LOCKS BRADLEY FLD See Section IV-A

DDSTOCK See SOUTH WOODSTOCK

DELAWARE

ERICAN SKYWAYS see SELBYVILLE

ESWOLD
ELAWARE ARPK 1 W
50 24 (1) S5 F2 FSS: MILLVILLE

AWARE AIRPARK see CHESWOLD

MAR-STATE LINE 1 E
52 30 (1) *L S1 F3 U-1
FSS: SALISBURY (LC 742-7324)

RGETOWN
ISSEX CO *IFR* 2 SE
51 H46 (3) S1 FSS: SALISBURY

TLEY
SCH Adj W
70 18 (1) S3 F2 FSS: MILLVILLE
Remarks: Unattended.

INS See WYOMING

ISON See MAGNOLIA

H See HARTLEY

REL 1 SW
30 21 (3) F2 U-1 FSS: SALISBURY
Remarks: P-line NE.

NOLIA
HNSON Adj W
15 19 (1) *L4 S1 FSS: MILLVILLE
Remarks: Runway lgts on prior request Oct 1-Apr 30.

LETOWN
MMIT ARPK
55 H34 (1) BL4 S5 F4
FSS: MILLVILLE (LC OL 2-5419)
Remarks: P-line E, N.

ORD ARPK 1 N
15 23 (2) *L4 S5 F4 U-1 FSS: SALISBURY

MILLSBORO
WHITE HOUSE FARM 8 NE
10 20 (2) FSS: SALISBURY

REHOBOTH AIRCRAFTERS 3 W
28 33 (4) *L4 S5 F4 U-1 FSS: SALISBURY
Remarks: P-line W, E.

SELBYVILLE
AMERICAN SKYWAYS 3 E
30 28 (2) *L1 S3 F2 FSS: SALISBURY
Remarks: P-line E, NW.

SMYRNA 1 E
20 18 (1) L4 F2 U-1 FSS: MILLVILLE

SUMMIT AIRPARK See MIDDLETOWN

SUSSEX COUNTY See GEORGETOWN

WHITE HOUSE FARM See MILLSBORO

WYOMING
JENKINS 2 W
53 30 (2) *L4 S5 F2 FSS: MILLVILLE
Remarks: P-line SE, S, N.

DISTRICT OF COLUMBIA

WASHINGTON DULLES INTL see Section IV-A

WASHINGTON-NATIONAL see Section IV-A

FLORIDA

AERO COUNTRY CLUB See MIAMI

AIRGLADES See CLEWISTON

AIR-LANDO AIRPARK See KISSIMMEE

APALACHICOLA MUNI 2 W
20 H52 (3) L4 F4 FSS: TALLAHASSEE
Remarks: Minor repairs on prior request.

ARCADIA MUNI 2 SE
60 26 (2) L4 FSS: FORT MYERS
Remarks: 80/87 Oct fuel on request.

ARTHUR DUNN ARPK See TITUSVILLE

AVON PARK MUNI 1 W
156 H40 (3) *L S5 F4 U-1 FSS: VERO BEACH
Remarks: P-line NW.

BARTOW MUNI 5 NE
124 H50 (4) *L4 S5 F4 U-1 FSS: TAMPA
Remarks: Attended days.

BAY COUNTY See PANAMA CITY

BELLE GLADE-STATE MUNI 1 NE
17 24 (2) S4 F2 FSS: VERO BEACH
Remarks: No fuel avbl July and Aug. Soft when wet.

AIRPORT DIRECTORY

BLOUNTSTOWN 1 E
50 31 (1) FSS: TALLAHASSEE
Remarks: P-line apch rnwy 31.

BOB SIKES See CRESTVIEW

BOCA RATON MUNI 2 NW
14 H40 (1) S4 F4, JP1 U-1 FSS: VERO BEACH
Remarks: Rgt tfc rnwy 22.

BRADLEY FLD See FT LAUDERDALE

BROOKSVILLE 7 SW
70 H70 (2) S4 F4 FSS: TAMPA

BRUCE See GENEVA

BUCHAN See ENGLEWOOD

BUNNELL MUNI 3 S
34 H50 (4) F4 FSS: ORLANDO
Remarks: Fuel avbl by telephone.

CASA YBEL See SANIBEL ISLAND

CEDAR KEY
LEWIS 1 W
7 H24 (1) FSS: GAINESVILLE
Remarks: Use rnwy. Irregularly attended. Rut.

CENTRAL BREVARD See COCOA

CHARLOTTE CO See PUNTA GORDA

CHATTAHOOCHEE 2 NE
230 18 (1) F2 FSS: TALLAHASSEE

CHIPLEY 2 SE
166 24 (2) FSS: DOTHAN

CIRCLE T RANCH See INDIANTOWN

CLEARWATER MUNI 2 NE
73 30 (3) S5 F4 U-1 FSS: TAMPA
Remarks: Attended days.

CLEWISTON
CLEWISTON 1 SW
19 30 (3) *L4 S5 F4 FSS: FORT MYERS
Remarks: P-lines N, NE, NW, SW.

AIRGLADES 7 W
20 H30 (2) L4 S5 F2 FSS: FORT MYERS

COASTAL FLYING SERVICE See PENSACOLA

COCOA
CENTRAL BREVARD 2 SE
4 40 (1) BL4 S3 F4 U-1
FSS: MELBOURNE (LC 783-8833)

CRAIG MUNI See JACKSONVILLE

CRESTVIEW
CRESTVIEW MUNI *IFR* 2 N
274 33 (1) BL2 S1 FSS: CRESTVIEW

BOB SIKES 3 NE
175 H50 (1) F4 FSS: CRESTVIEW or F
Remarks: Minor airframe repairs.

CROSS CITY (FAA) *IFR* 1 S
42 H50 (2) BL2 F3 FSS: GAINESVILLE

CRYSTAL RIVER
HOMOSASSA 2 SE
7 32 (2) L4 S3 F4 FSS: GAINESVILLE

CYPRESS GARDENS See WINTER HAVEN

DAYTONA BEACH MUNI See Section IV-A

DE FUNIAK SPRINGS MUNI 2 W
265 39 (3) L4 S3 F4 U-1 FSS: CRESTVIEW
Remarks: P-line N & SW. Lgts on prior request after 2400.

DELAND
DELAND MUNI 3 NE
80 H60 (4) BL4 S5 F4 U-1 FSS: ORLAND
Remarks: Use rnwys.

LEE FLIGHT STRIP 4 N
94 25 (1) S5 U-1 FSS: ORLAND
Remarks: Rgt tfc W.

DESTIN ARPK 1 E
14 22 (1) S3 F4 FSS: CRESTVIEW
Remarks: Landing FEE for aircraft not requiring service.

DOG ISLAND AIRSTRIP 4 SE Carabelle
6 28 (1) F4 FSS: TALLAHASSEE

DUNNELLON MUNI 4 E
66 H50 (3) FSS: GAINESVILLE

ENGLEWOOD
BUCHAN 2 NW
13 26 (2) FSS: FORT MYERS
Remarks: P-line SE.

EVERGLADES 1 SW
6 H12 (1) FSS: FORT MYERS
Remarks: 2400' strip avbl.

EXECUTIVE See FT LAUDERDALE

FAIRCHILD-ST AUGUSTINE See Section IV-A

FERNANDINA BEACH 3 S
15 H53 (4) F2 FSS: JACKSONVILLE
Remarks: Unattended.

FT LAUDERDALE
BRADLEY FLD 2 NW
9 H26 (1) S5 F4 U-1 FSS: MIAMI (LC 52[illegible]

AIRPORT DIRECTORY

FT LAUDERDALE-EXECUTIVE 5 NW
14 H40 (3) BL4 S5 F5, JP4 FSS: MIAMI (LC 524-0233)

HOLLYWOOD INTL See Section IV-A

MYERS
CAPE CORAL 5 W
10 H40 (2) L4 FSS: FORT MYERS (LC WE 6-1857)
Remarks: P-line E.

LEHIGH ACRES WEST 9 E
23 H30 (1) *L F4 FSS: FORT MYERS (LC WE 6-1857)
Remarks: 6000' strip avbl.

PAGE FLD *IFR* 3 S
17 H50 (3) BL4 S5 F5, JP4 FSS: FORT MYERS on Fld
Remarks: Use rnwys. Three 32' lgtd twrs SW corner, 1000' fro nearest rnwy. Rnwy 9-27 clsd to acft over 14500 lbs. Rnwy 9 threshold displaced 600'.

PIERCE
FT PIERCE COUNTY 3 NW
24 H50 (4) BL4 S5 F4 U-1
FSS: VERO BEACH (LC HO 4-1817)
Remarks: Use rnwys. Center 3600' E W rnwy lgtd.

SUNRISE 3 SW
18 26 (1) S5 F2 FSS: VERO BEACH (LC HO 4-1817)
Remarks: Rnwy 26 restricted by trees.

WALTON BEACH See NAVARRE

NESVILLE
GAINESVILLE MUNI *IFR* 4 NE
155 H50 (3) BL4 S5 F4 FSS: GAINESVILLE on Fld
Remarks: Use rnwys.

STENGEL FLD 3 SW
75 33 (1) *L S5 F2
FSS: GAINESVILLE (LC FR 6-8521)
Remarks: Sandy.

STEVA
SPRUCE 3 SE
11 26 (1)
Remarks: Soil-wet. W end dangerous when wet.

STUART FLD MUNI See WATER HAVEN

SULLIVAN See JACKSONVILLE

SUMNDON See ORLANDO, HERNDON in Section IV-A

SYCUS See VERO BEACH

SYLVA SPRINGS
SKY ROAD INN 4 N
58 22 (1) F2 FSS: GAINESVILLE
Remarks: Rut.

TAMARAC See Section IV-A

TAMPA
PETERSTEAD 4 NW
3 H30 (1) B*L4 F4 FSS: MIAMI

THONOTOSASSA See CRYSTAL RIVER

TITUSVILLE
SPACE COAST REGIONAL 4 W
120 H50 (3) BL4 S5 F4, JP4 U-1 VFR ADV: For APP CON, DEP CON See ORLANDO/MCCOY in Section IV-A.
FSS: ORLANDO
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

TOMOKA See DAYTONA BEACH

TRILBY
TRILBY AIRPARK 3 NW
30 H30 (1) F2 FSS: TAMPA (DL)
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

VENICE MUNI 3 SE
75 H40 (2) L4 F4 FSS: FORT MYERS
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

VERO BEACH
VERO BEACH MUNI *IFR* 3 W
120 H50 (3) BL4 S5 F4, JP4 U-1 VFR ADV: For APP CON, DEP CON See ORLANDO/MCCOY in Section IV-A.
FSS: VERO BEACH (LC HO 4-1817)
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

WATER HAVEN
STUART FLD MUNI 3 NW
30 H30 (1) F2 FSS: VERO BEACH (LC HO 4-1817)
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

WAUCHULA MUNI 2 NW
75 H40 (2) L4 F4 FSS: FORT MYERS
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

WEST PALM BEACH See Section IV-A

WESTSIDE See JACKSONVILLE

WEWAHITCHKA See PANAMA CITY

WHITE SPRINGS See JASPER

WILDWOOD
SUMTER COUNTY 3 SW
30 H30 (1) F2 FSS: ORLANDO
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

WILLISTON See CRYSTAL RIVER

WINTER HAVEN
WINTER HAVEN MUNI 2 NW
75 H40 (2) L4 F4 FSS: ORLANDO
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

WINTER PARK See ORLANDO, WINTER PARK in Section IV-A

ZEPHYRHILLS MUNI 3 NW
75 H40 (2) L4 F4 FSS: TAMPA (DL)
Remarks: Use rnwys. Rnwy 9-27 lgt avbl rnwy 9-27 only.

HOMOSASSA See CRYSTAL RIVER

HOWEY Adj S
75 20 (1) S1 F2 FSS: ORLANDO

IMESON See JACKSONVILLE, IMESON in Section IV-A

IMMOKALEE 1 NE
35 H50 (3) BL4 F3 FSS: FORT MYERS
Remarks: Unattended.

INDIANTOWN
CIRCLE T RANCH 2 NE
30 60 (1)
Remarks: Fence each end.

INVERNESS MUNI 2 SE
50 20 (1) L4 F2 FSS: GAINESVILLE

JACKSONVILLE
CRAIG MUNI 8 E
41 H40 (2) BL4 S5 F4, JP5 U-1
FSS: JACKSONVILLE (LC EL 5-3601)
Remarks: Use paved areas only.

HERLONG 8 SW
87 H40 (4) BL4 S5 F4 U-1
FSS: JACKSONVILLE (LC EL 5-3601)
Remarks: Use rnwys and txwys only.

IMESON See Section IV-A

KAY LARKIN See PALATKA

KEY WEST INTL See Section IV-A

KEYSTONE HGTS
KEYSTONE ARPK 4 NW
196 H50 (3) L4 F4 U-1 FSS: GAINESVILLE

KISSIMMEE
AIR-LANDO AIRPARK 8 NW
100 20 (1) S5 F2 FSS: ORLANDO

KISSIMMEE MUNI 2 W
82 H50 (3) BL4 S5 F4 U-1 TPA: 800'
FSS: ORLANDO

KNIGHT See TAMPA

LA BELLE MUNI 16 E
18 24 (2) FSS: FORT MYERS

LAKE CITY MUNI See Section IV-A

LAKELAND MUNI *IFR* 5 SW
142 H50 (3) BL4 S5 F4, JP1 U-1 VFR ADV: For APP CON, DEP CON See TAMPA/INTL in Section IV-A.
FSS: TAMPA (DL)
Remarks: Use rnwys. Rnwys lgt avbl rnwy 9-27 only.

LAKE WALES MUNI 2 SW
125 H40 (2) *L4 F4 U-1 FSS: ORLANDO
Remarks: Bcn operg prior request.

AIRPORT DIRECTORY

LEESBURG 3 NE
67 H50 (2) BL2 S5 F4 U-1 FSS: ORLANDO
Remarks: Attended days.

LEE FLIGHT STRIP See DELAND

LEHIGH ACRES WEST See FT MYERS

LEWIS See CEDAR KEY

LONGWOOD
SLADE 2 W
110 26 (1) S4 F2 FSS: ORLANDO (LC CH 1-4464)
Remarks: P-line SE.

MADISON CO 6 SE
33 (1) FSS: VALDOSTA
Remarks: P-line W end.

MARATHON FLIGHT STRIP 2 E
8 H60 (1) S3 F3 FSS: KEY WEST (DL)
Remarks: TV Twr SE. 2000′ overrun W end, 1000′ displaced threshold E end.

MARIANNA MUNI 4 NE
113 H50 (6) BL4 F4 U-1
FSS: DOTHAN (LC HU 2-2300)
Remarks: Rnwy-Lgts thru Dotham, Ala rdo.

McDONALD FLD See PLYMOUTH

McINTOSH
ORANGE LAKE SHORES 1 E
62 30 (1)

MELBOURNE-JOHN F KENNEDY MEML See Section IV-A

MIAMI
AERO COUNTRY CLUB 8 SW
10 26 (1) S5 F4 U-1 FSS: MIAMI (LC 634-7687)
Remarks: Closed ngt operns acft over 600 hp prohibited.

MIAMI INTL See Section IV-A

OPA LOCKA See Section IV-A

TAMIAMI See Section IV-A

MILTON "T" FLD 3 NE
120 50 (2) S5 F4 FSS: PENSACOLA
Remarks: P-line S.

NAPLES-AMERICA 2 NE
8 H50 (2) BL4 S5 F4 U-1 FSS: FORT MYERS
Remarks: Use rnwys.

NAVARRE
FT WALTON BEACH 2 E
23 18 (1) F2 FSS: PENSACOLA
Remarks: Hanger W side of N end.

NEW SMYRNA BEACH MUNI 3 NW
12 H50 (4) BL4 S5 F4 U-1 FSS: ORLANDO

NORTH PERRY See HOLLYWOOD, NORTH PERRY in Section IV-A

OSCALA
OCALA MUNI 4 W
71 H50 (1) BL4 S5 F4 U-1 FSS: GAINESVILLE

SKYRANCH ARPK 3 N
78 25 FSS: GAINESVILLE

OKEECHOBEE COUNTY 2 NW
34 H50 (2) *L S3 F4 U-1 FSS: VERO BEACH
OPA LOCKA See MIAMI, OPA LOCKA in Section IV-A

ORANGE LAKE SHORES See McINTOSH

ORLANDO
HERNDON See Section IV-A

HOEQUIST 3 SW
100 20 (2) S5 F4 U-1 FSS: ORLANDO (LC CH 1-4454

ORMOND BEACH MUNI 3 NW
29 H40 (2) FSS: ORLANDO

PAGE FLD See FT MYERS

PAHOKEE
PALM BEACH COUNTY GLADES *IFR* 2 SW
17 H47 (2) L4 S5 F4 U-1 VFR ADV: For APP CON, DEP CON See WEST PALM BEACH/PALM BEACH INTL
FSS: VERO BEACH

PALATKA
KAY LARKIN 3 NW
56 H50 (4) BL4 S5 F4 U-1 FSS: GAINESVILLE
Remarks: Use rnwys.

PALM BEACH
PALM BEACH COUNTY GLADES See PAHOKEE

PALM BEACH INTL See WEST PALM BEACH INTL in Section IV-A

PANAMA CITY
BAY COUNTY *IFR* 3 NW
20 | H49 (2) BL4 S5 F4 U-1 VFR ADV: TYNDALL APP CON 134.1 142.02 137.65 126.2(E) 119.1 125.5R DEP CON 119.1 FSS: TALLAHASSEE (LC SU-5-4631)

PENSACOLA
PENSACOLA MUNI See Section IV-A

COASTAL FLYING SERVICE 9 NW
100 22 (1) S3 F2 FSS: PENSACOLA (LC HE 8-4[illegible]
Remarks: P-line NW-N. Unattended.

PERRY-FOLEY 3 S
45 H50 (3) *L4 S1 F4 FSS: TALLAHASSEE
Remarks: Use rnwys. Bcn operg prior request.

PIERSON MUNI 1 NE
70 20 (1) FSS: ORLANDO
Remarks: Use ctr of strip.

AIRPORT DIRECTORY

ANT CITY MUNI 2 SW
154 H39 (1) BL4 S5 F4 FSS: TAMPA
Remarks: Use rnwy. 3200' avbl rnwy ?

YMOUTH
kDONALD FLD 4 NW
128 29 (1) L4 S3 F4 U-1 FSS: ORLANDO

APANO BEACH MUNI 1 NE
21 H46 (4) L4 S5 F5, JP4 U-1
FSS: MIAMI (LC 524-0233)
Remarks: Use rnwy.

ITA GORDA
HARLOTTE CO 3 SE
25 H50 (3) BL4 F4 U-1 FSS: FORT MYERS
Remarks: Use rnwys.

NCY 2 NE
226 35 (2) F4 FSS: TALLAHASSEE
Remarks: P-line S.

CLOUD ARPK 1 S
75 21 (2) F4
Remarks: Rnwy lgts in emgcy by circling or thru Orlando FSS.

UCIE COUNTY See FT PIERCE

ETERSBURG
EARWATER INTL See Section IV-A

IITTED 2 E
7 H33 (2) BL4 S3 F4, JP4 U-1 FSS: TAMPA (DL)
Remarks: Rgt tfc rnwys 6, 36.

ULA
RUCE CREEK 3 N
25 H40 (4) FSS: ORLANDO

BEL ISLAND
SA YBEL 3 SW
21 (1) FSS: FORT MYERS
Remarks: Unattended.

SOTA-BRADENTON See Section IV-A

STIAN MUNI 1 W
3 H40 (3) F4 U-1 FSS: MELBOURNE (LC PA 3-6151)

ING AIR TERMINAL 6 SE
3 H51 (4) B*L4 S5 F4 U-1 FSS: VERO BEACH
emarks: Use rnwys.

ER SPRINGS AIRPARK W
5 32 (1) S5 F4 U-1 FSS: GAINESVILLE

ANCH ARPK See OCALA

OAD INN See HIGH SPRINGS

CE CREEK See SAMSULA

GEL FLD See GAINESVILLE

STUART
WITHAM FLD 1 SE
17 H50 (4) B*L4 S3 F4, JP1 U-1 FSS: VERO BEACH
Remarks: Use rnwys.

SUNRISE See FT PIERCE

TALLAHASSEE
TALLAHASSEE MUNI See Section IV-A

TALLAHASSEE-COMMERCIAL 8 NW
157 26 (2) S5 F4 U-1
FSS: TALLAHASSEE (LC 224-7101)
Remarks: P-line S.

TAMIAMI See MIAMI, TAMIAMI in Section IV-A

TAMPA
KNIGHT 3 S
8 H40 (2) BL4 S5 F4 U-1 VFR ADV: For APP CON, DEP CON See TAMPA INTL FSS: TAMPA (LC 877-7503)
Remarks: Rgt tfc rnwy 3 and 35. Use rnwy.

TAMPA INTL See Section IV-A

VANDENBERG 7 NE
12 22 (1) S5 F4 U-1 FSS: TAMPA (LC 877-7503)
Remarks: S 200' of rnwy soft when wet.

TITUSVILLE
ARTHUR DUNN ARPK 1 NW
28 H29 (1) L4 S5 F2 U-1 FSS: MELBOURNE
Remarks: 2300' lgtd.

TITUSVILLE-COCOA 5 S
35 H50 (4) BL4 S3 F4 U-1
FSS: MELBOURNE (LC 783-8833)

UMATILLA MUNI 1 SE
100 H23 (1) L4 FSS: ORLANDO

VALKARIA FLD 2 S
26 H20 (1)
Remarks: 1000' asph emgcy overruns each end rnwy 13-31.

VANDENBURG See TAMPA

VENICE MUNI 2 SE
19 H50 (3) BL4 S5 F4 FSS: FORT MYERS

VERO BEACH
HIBISCUS 1 S
24 26 (1) *L4 S5 F4 U-1
FSS: VERO BEACH (LC 2167)

VERO BEACH MUNI *IFR* 1 N
24 H72 (3) BL4 S5 F4, JP4 U-1
FSS: VERO BEACH on Fld

WARRINGTON
FERGUSON FLD 4 NW
28 26 (1) S5 F2

AIRPORT DIRECTORY

WAUCHULA MUNI 2 E
70 25 (4) B*L4 F2 FSS: TAMPA
Remarks: P-line S.

WEST PALM BEACH
PALM BEACH INTL See Section IV-A

PALM BEACH COUNTY PARK 7 SW
15 H35 (3) L4 S5 F4 U-1
FSS: VERO BEACH (LC 2167)
Remarks: Attended days.

WHITTED See ST PETERSBURG

WILLISTON MUNI 2 SW
70 H70 (2) S5 F4 FSS: GAINESVILLE

WINTER HAVEN
CYPRESS GARDENS 3 SE
130 34 (3) S5 F2 FSS: ORLANDO
Remarks: P-line NW.

GILBERT FLD MUNI 3 NW
146 H40 (2) BL4 S5 F4 U-1 FSS: ORLANDO

WITHAM FLD See STUART

ZEPHYRHILLS MUNI 1 SE
92 H55 (3) *L S5 F4 FSS: TAMPA

GEORGIA

ADEL
COOK COUNTY 2 W
220 H40 (2) S3 F4 FSS: VALDOSTA

ALBANY *IFR* 3 SW
196 H50 (3) BL4 S5 F4, 6 U-1 FSS: ALBANY on Fld
VFR ADV TURNER APP CON 134.1 123.9 122.5R (E),
DEP CON 134.1 126.2.

ALMA (FAA) 3 SW
200 43 (2) BL4 F2 FSS: ALMA on Fld
Remarks: P-line NW. Strip soft when wet. Full self-service.

AMERICUS
SOUTHER FLD 4 NE
465 H42 (1) BL4 S5 F4 U-1 FSS: ALBANY
Remarks: Rnwy 9-27 unusable when wet.

ATHENS MUNI *IFR* 3 E
807 H50 (2) BL4 S5 F4 U-1 FSS: ANDERSON

ATLANTA
ATLANTA See Section IV-A

DEKALB-PEACHTREE See ATLANTA in Section IV-A

FULTON COUNTY See ATLANTA in Section IV-A

AUGUSTA
AUGUSTA BUSH FLD See Section IV-A

DANIEL FLD *IFR* 1 W
424 H40 (2) L4 S5 F4 U-1
FSS: AUGUSTA (LC 798-5[illegible]
Remarks: Embank W.

BAINBRIDGE
BAINBRIDGE AIR BASE 6 NW
141 H51 (2) FSS: TALLAHASSEE

COMMODORE-DECATUR 2 NW
103 H35 (2) L4 S5 F4 U-1 FSS: TALLAHASSEE
Remarks: 500' displaced threshold each end rnwy 4-22.

BALDWIN CO See MILLEDGEVILLE

BARWICK-LAFAYETTE See LAFAYETTE

BAXLEY
MILLER'S 3 SW
200 36 (2) FSS: ALMA
Remarks: P-line SW, ruf. Soft when wet.

BELLAH FIELD See STOCKBRIDGE

BERRIEN COUNTY MUNI See RAY CITY

BIRDSVILLE See MILLEN

BLAKELY
EARLY COUNTY 2 SE
260 20 (2)
Remarks: Soft when wet. Unattended.

BRUNSWICK
JEKYLL FLIGHT STRIP 5 SE
10 17 (1) FSS: BRUNSWICK (LC 638-5[illegible]

BRUNSWICK MUNI 2 N
14 H23 (2) *L4 S5 F4 U-1
FSS: BRUNSWICK (LC 638-[illegible]

McKINNON *IFR* 5 E
20 H43 (4) BL4 S5 F4, JP1 U-1
FSS: BRUNSWICK or F[illegible]
VFR ADV NAVY GLYNCO APP CON 134.1 118.2 (E)
122.5R, DEP CON 126.9

BUSH FLD See AUGUSTA in Section IV-A

BUTLER MUNI 1 NW
667 32 (2) BL2 F4 FSS: MACON
Remarks: P-line SW. Poles S. Unattended.

CAIRO MUNI 3 NE
263 21 (2) FSS: TALLAHASSEE

CALLAWAY See LA GRANGE

CAMILLA MUNI 2 SW
180 30 (2) FSS: ALBANY

CARROLLTON MUNI 2 NE
1049 H31 (1) L4 S1 F4 FSS: ATLANTA

AIRPORT DIRECTORY

ARTERSVILLE
CLINE FLD 3 NW
790 40 (2) F2 FSS: ATLANTA

DAR SPRING
GREAT SOUTHERN 3 W
177 33 (1)

EMENTS ARPK See MOULTRIE

EVELAND
HITE COUNTY 3 SE
1438 24 (1) FSS: ANDERSON
Remarks: Soft when wet.

INE FIELD See CARTERSVILLE

BB AIRPARK See MARIETTA

CHRAN 4 E
337 22 (2) *L2 S5 F2 FSS: MACON

UMBUS
OLUMBUS MUNI 1 S
241 47 (2) S5 F4 U-1 FSS: ATLANTA (LC 322-6458)
Remarks: Rgt tfc NW, SE. Ctn after hvy rains.

USCOGEE COUNTY See Section IV-A

MODORE DECATUR See BAINBRIDGE

K COUNTY See ADEL

DELE 2 NE
308 H50 (3) BL4 F4, JP4 FSS: ALBANY

INGTON MUNI 3 N
793 H25 (1) BL4 F4 FSS: ATLANTA
Remarks: Irregularly attended.

HBERT
AY FARM 4 SW
457 30 (1) FSS: ALBANY
Remarks: Fence parallel to N.

LONEGA
MPY'S LANDING STRIP 3 NW
1311 36 (2) FSS: ATLANTA
Remarks: Ridge N rough. Cattle on fld.

TON
LTON MUNI 5 SE
711 H30 (1) S5 F4 U-1 FSS: CROSSVILLE

UNTAIN VIEW 2 NW
867 20 (2) FSS: CROSSVILLE

IEL FLD See AUGUSTA

VILLE
LLS AIR STRIP 5 NE
350 26 (1)
Remarks: Bldg N. Clsd idefinitely.

DARIEN
EDEN FLD 3 N
30 30 (1) FSS: BRUNSWICK

PATTERSON ISLAND 7 NE
10 18 (1)
Remarks: P-line W. Unattended.

DAVISBORO
HEIDRICH 3 NW
379 34 (1) FSS: AUGUSTA
Remarks: P-line SE.

DAWSON
TERRELL COUNTY 2 SE
325 26 (1) S5 FSS: ALBANY
Remarks: P-line N.

DEKALB-PEACHTREE See ATLANTA in Section IV-A

DONALSONVILLE MUNI 2 S
160 H40 (3) FSS: DOTHAN

DOUGLAS MUNI 1 S
255 H35 (1) L4 S3 F4 U-1 FSS: ALMA
Remarks: Use rnwy. Attended days.

DUBLIN MUNI *IFR* 4 NW
303 H50 (3) BL4 S5 F4 FSS: MACON
VFR ADV For APP CON, DEP CON See MACON/MUNI in Section IV-A.

EARLY COUNTY See BLAKELY

EASTMAN
STUCKUP 1 SW
420 30 (2) L4 F4

EDEN FIELD See DARIEN

EDWARDS SKY-PORT See FAIRBURN

ELLAVILLE
WALDRONS TREE FARM 1 E
565 18 (1)
Remarks: P-line S. First 800' rnwy 18 ruf.

EMANUEL CO See SWAINSBORO

FAIRBURN
EDWARDS SKY-PORT 3 SW
1025 H27 (1) S3 F4 FSS: ATLANTA (LC 344-1551)
Remarks: Vehicles on rnwy.

FISHER FARM See HARTWELL

FITZGERALD MUNI 2 S
365 36 (2) BL4 S1 F4 U-1 FSS: ALMA

FLYING-S-RANCH See VILLA RICA
FORSYTH 2 NW
700 24 (3) FSS: MACON
Remarks: Twr S hazardous. Use at own risk. Cattle

AIRPORT DIRECTORY

FULTON COUNTY See ATLANTA in Section IV-A

GAINESVILLE MUNI 1 S
1277 H40 (2) BL6, 8 S3 F4 U-1 FSS: ATLANTA

GARDENS See PINE MOUNTAIN

GAY FARM See CUTHBERT

GRANT MEML See THOMASTON

GREAT SOUTHERN See CEDAR SPRING

GRIFFIN-SPALDING COUNTY 1 S
936 H33 (1) BL4 S5 F4 U-1 FSS: ATLANTA

GUNN AIRFIELD See LITHONIA

HALLS AIR STRIP See DANVILLE

HARTWELL
FISHER FARM 4 S
710 18 (1)

HAWKINSVILLE 2 E
260 30 (1) FSS: MACON

HAZELHURST MUNI 3 NW
256 H39 (1) L4 S5 F2, 4 FSS: ALMA
Remarks: Attended daylight hours.

HEIDRICH See DAVISBORO

HOMERVILLE FLIGHT STRIP 1 NW
185 H40 (1) FSS: VADOSTA

JACKSON COUNTY See JEFFERSON

JASPER
PICKENS COUNTY 2 S
1435 23 (1) S1 F2 U-1 FSS: ATLANTA

JEFFERSON
JACKSON CO 3 NE
1005 H31 (2) S3 F4 U-1 FSS: ANDERSON
Remarks: S end N/S rnwy blkd by P-line.

JEKYLL FLIGHT STRIP See BRUNSWICK

JESUP
REDLAND 4 NW
150 32 (2) S1 F4
Remarks: Obstruction E P-line W fence. Flares avbl in emgcy.

JESUP-WAYNE CO 3 S
103 30 (1) L4 F4 FSS: ALMA

JONESBORO
S EXPRESSWAY 1 S
900 H26 (1) L4 S5 F4 U-1
FSS: ATLANTA (LC 344-1551)
Remarks: Lgts on request after 2100 EST.

KENNEDY See PARROTT

KNOX See THOMSON

LAFAYETTE
BARWICK-LAFAYETTE 1 S
820 H28 (1) S1 FSS: ATLANTA
Remarks: P-line N.

LA GRANGE
CALLAWAY *IFR* 3 SW
720 H50 (3) BL4 S5 F4 FSS: ANNISTON (TU 2-3427)

LAVONIA
SHUFORD MUNI 1 S
820 25 (1) FSS: ANDERSON
Remarks: Bldg E.

LITHONIA
GUNN AIRFLD 3 NW
930 H21 (1) S5 F4 U-1 FSS: ATLANTA (LC 344-1551)

LOUISVILLE
PORT MAYBE 3 N
330 37 (2)
Remarks: 80 oct fuel on call.

MACON MUNI See Section IV-A

MACON
SMART 4 E
463 H47 (3) *L4 S5 F4 U-1 FSS: MACON (LC 788-5064)
Remarks: Ben on prior request. P-line NW.

MARIETTA
COBB AIRPARK 6 SW
1050 13 (3) S5 F2 FSS: ATLANTA
Remarks: Hazardous, weeds and eroded spots.

McCOLLUM 4 NW
1030 H40 (1) L4 S5 F4 U-1
FSS: ATLANTA (LC 344-1551)

PARKAIRE 7 E
1085 H22 (1) S5 F4 U-1 FSS: ATLANTA (LC 344-1551)

McCOLLUM See MARIETTA

McDONOUGH 2 S
907 26 (1) S5 FSS: ATLANTA (LC 344-1551)
Remarks: Ruf. Unattended.

McKINNON See BRUNSWICK

METTER 1 S
225 20 (1)

MILLEDGEVILLE
BALDWIN CO 4 N
380 H35 (1) BL4 F4 U-1 FSS: MACON

MILLEN
BIRDSVILLE 8 NW
200 23 (1)
Remarks: Unattended.

AIRPORT DIRECTORY

LLER'S See BAXLEY

LLHAVEN 1 W
140 36 (2) FSS: AUGUSTA
Remarks: P-lines SE, NW. Unattended.

LLS See SYLVANIA

NROE MUNI 1 SE
862 H24 (1) S1 F2 FSS: ATLANTA
Remarks: P-line E. Unattended.

NTEZUMA MUNI 1 E
300 40 (1) BL4 F2 FSS: MACON
Remarks: P-line S, SE 2500' strip. Unattended.

ULTRIE
LEMENTS ARPK 3 S
300 28 (1) S5 F2 FSS: VALDOSTA
Remarks: P-line N.

OULTRIE SUNSET *IFR* 6 S
290 H51 (3) BL4 F4 U-1 FSS: VALDOSTA
VFR ADV For APP CON, DEP CON See VALDOSTA/MUNI
Remarks: Rnwy lgts on prior request after 10:00 pm.

UNTAIN VIEW See DALTON

SCOGEE COUNTY See COLUMBUS in Section IV-A

ERS See TIFTON

RTLE See PERRY

RROTT
ENNEDY 2 SE
410 27 (1) FSS: ALBANY

TTERSON ISLAND See DARIEN

RRY
YRTLE 1 NW
426 H25 (1) F2 FSS: MACON
Remarks: Attended April-Sept.

KENS COUNTY See JASPER

E MOUNTAIN
ARDENS 2 S
912 31 (1) L4 S1 U-1 FSS: ATLANTA (LC 344-1551)
Remarks: Rnwy lgts avbl thru CSG rdo or Muscogee Co twr.

E MOUNTAIN VALLEY 3 SE
900 26 (1) S1 F4 FSS: ATLANTA
Remarks: P-line NW. Unattended. Unusable when wet.

T MAYBE See LOUISVILLE

TMAN-BROOKS COUNTY 2 NW
181 29 (2) FSS: VALDOSTA
Remarks: P-line SE.

RAY CITY
BERRIEN COUNTY MUNI 5 N
250 28 (1) L4
Remarks: P-line E, W. First 500' on W end unlgtd.

REDLAND See JESUP

REIDSVILLE 1 SW
205 23 (1)
Remarks: P-line W ruf.

ROGERS See WAYNESBORO

ROME
RUSSELL FLD *IFR* 7 N
644 H50 (3) BL4 S5 F4 U-1 FSS: ATLANTA
Remarks: Use rnwys.

ROOSEVELT FIELD See WARM SPRINGS

ROSTEX See TENNGA

RUSSELL FIELD See ROME

ST MARYS 2 NW
24 H50 (3) B S3 F4 U-1 FSS: JACKSONVILLE
Remarks: Attended dalgt hrs.

ST REGIS See WARWICK

SANDERSVILLE
WASHINGTON CO 1 E
416 35 (2) FSS: MACON
Remarks: Trees N, S.

SAVANNAH
SAVANNAH SAFFOOD FLD 4 E
18 35 (2) F4 FSS: SAVANNAH (LC 234-2257/8)
Remarks: Standing water on rnwys after rains. P-line SW.
Wind tree inoper.

TRAVIS See Section IV-A

SHUFORD MUNI See LAVONIA

SMART See MACON

S EXPRESSWAY See JONESBORO

SOUTHER FLD See AMERICUS

STATESBORO MUNI 3 NE
181 H52 (3) BL4 F4 FSS: SAVANNAH

STOCKBRIDGE
BELLAH FLD 3 E
750 23 (4) FSS: ATLANTA (LC 344-1551)

STONE MOUNTAIN 3 E
986 H30 (1) S5 F2 FSS: ATLANTA (LC 344-1551)
Remarks: P-line N. Rgt tfc for S apch.

STUCKUP See EASTMAN

AIRPORT DIRECTORY

FULTON COUNTY See ATLANTA in Section IV-A

GAINESVILLE MUNI 1 S
1277 H40 (2) BL6, 8 S3 F4 U-1 FSS: ATLANTA

GARDENS See PINE MOUNTAIN

GAY FARM See CUTHBERT

GRANT MEML See THOMASTON

GREAT SOUTHERN See CEDAR SPRING

GRIFFIN-SPALDING COUNTY 1 S
936 H33 (1) BL4 S5 F4 U-1 FSS: ATLANTA

GUNN AIRFIELD See LITHONIA

HALLS AIR STRIP See DANVILLE

HARTWELL
FISHER FARM 4 S
710 18 (1)

HAWKINSVILLE 2 E
260 30 (1) FSS: MACON

HAZELHURST MUNI 3 NW
256 H39 (1) L4 S5 F2, 4 FSS: ALMA
Remarks: Attended daylight hours.

HEIDRICH See DAVISBORO

HOMERVILLE FLIGHT STRIP 1 NW
185 H40 (1) FSS: VADOSTA

JACKSON COUNTY See JEFFERSON

JASPER
PICKENS COUNTY 2 S
1435 23 (1) S1 F2 U-1 FSS: ATLANTA

JEFFERSON
JACKSON CO 3 NE
1005 H31 (2) S3 F4 U-1 FSS: ANDERSON
Remarks: S end N/S rnwy blkd by P-line.

JEKYLL FLIGHT STRIP See BRUNSWICK

JESUP
REDLAND 4 NW
150 32 (2) S1 F4
Remarks: Obstruction E P-line W fence. Flares avbl in emgcy.

JESUP-WAYNE CO 3 S
103 30 (1) L4 F4 FSS: ALMA

JONESBORO
S EXPRESSWAY 1 S
900 H26 (1) L4 S5 F4 U-1
FSS: ATLANTA (LC 344-1551)
Remarks: Lgts on request after 2100 EST.

KENNEDY See PARROTT

KNOX See THOMSON

LAFAYETTE
BARWICK-LAFAYETTE 1 S
820 H28 (1) S1 FSS: ATLANTA
Remarks: P-line N.

LA GRANGE
CALLAWAY *IFR* 3 SW
720 H50 (3) BL4 S5 F4 FSS: ANNISTON (TU 2-3423

LAVONIA
SHUFORD MUNI 1 S
820 25 (1) FSS: ANDERSON
Remarks: Bldg E.

LITHONIA
GUNN AIRFLD 3 NW
930 H21 (1) S5 F4 U-1 FSS: ATLANTA (LC 344-1551)

LOUISVILLE
PORT MAYBE 3 N
330 37 (2)
Remarks: 80 oct fuel on call.

MACON MUNI See Section IV-A

MACON
SMART 4 E
463 H47 (3) *L4 S5 F4 U-1 FSS: MACON (LC 788-5044)
Remarks: Ben on prior request. P-line NW.

MARIETTA
COBB AIRPARK 6 SW
1050 13 (3) S5 F2 FSS: ATLANTA
Remarks: Hazardous, weeds and eroded spots.

McCOLLUM 4 NW
1030 H40 (1) L4 S5 F4 U-1
FSS: ATLANTA (LC 344-1551)

PARKAIRE 7 E
1085 H22 (1) S5 F4 U-1 FSS: ATLANTA (LC 344-1551)

McCOLLUM See MARIETTA

McDONOUGH 2 S
907 26 (1) S5 FSS: ATLANTA (LC 344-1551)
Remarks: Ruf. Unattended.

McKINNON See BRUNSWICK

METTER 1 S
225 20 (1)

MILLEDGEVILLE
BALDWIN CO 4 N
380 H35 (1) BL4 F4 U-1 FSS: MACON

MILLEN
BIRDSVILLE 8 NW
200 23 (1)
Remarks: Unattended.

AIRPORT DIRECTORY

LLER'S See **BAXLEY**

LLHAVEN 1 W
140 36 (2) FSS: AUGUSTA
Remarks: P-lines SE, NW. Unattended.

LLS See **SYLVANIA**

NROE MUNI 1 SE
862 H24 (1) S1 F2 FSS: ATLANTA
Remarks: P-line E. Unattended.

NTEZUMA MUNI 1 E
300 40 (1) BL4 F2 FSS: MACON
Remarks: P-line S, SE 2500' strip. Unattended.

JLTRIE
LEMENTS ARPK 3 S
300 28 (1) S5 F2 FSS: VALDOSTA
Remarks: P-line N.

OULTRIE SUNSET *IFR* 6 S
290 H51 (3) BL4 F4 U-1 FSS: VALDOSTA
VFR ADV For APP CON, DEP CON See VALDOSTA/MUNI
Remarks: Rnwy lgts on prior request after 10:00 pm.

JNTAIN VIEW See **DALTON**

COGEE COUNTY See **COLUMBUS** in Section IV-A

ERS See **TIFTON**

TLE See **PERRY**

ROTT
ENNEDY 2 SE
410 27 (1) FSS: ALBANY

TERSON ISLAND See **DARIEN**

RY
RTLE 1 NW
426 H25 (1) F2 FSS: MACON
Remarks: Attended April-Sept.

CENS COUNTY See **JASPER**

MOUNTAIN
ARDENS 2 S
912 31 (1) L4 S1 U-1 FSS: ATLANTA (LC 344-1551)
Remarks: Rnwy lgts avbl thru CSG rdo or Muscogee Co twr.

MOUNTAIN VALLEY 3 SE
900 26 (1) S1 F4 FSS: ATLANTA
Remarks: P-line NW. Unattended. Unusable when wet.

T MAYBE See **LOUISVILLE**

MAN-BROOKS COUNTY 2 NW
181 29 (2) FSS: VALDOSTA
Remarks: P-line SE.

RAY CITY
BERRIEN COUNTY MUNI 5 N
250 28 (1) L4
Remarks: P-line E, W. First 500' on W end unlgtd.

REDLAND See **JESUP**

REIDSVILLE 1 SW
205 23 (1)
Remarks: P-line W ruf.

ROGERS See **WAYNESBORO**

ROME
RUSSELL FLD *IFR* 7 N
644 H50 (3) BL4 S5 F4 U-1 FSS: ATLANTA
Remarks: Use rnwys.

ROOSEVELT FIELD See **WARM SPRINGS**

ROSTEX See **TENNGA**

RUSSELL FIELD See **ROME**

ST MARYS 2 NW
24 H50 (3) B S3 F4 U-1 FSS: JACKSONVILLE
Remarks: Attended dalgt hrs.

ST REGIS See **WARWICK**

SANDERSVILLE
WASHINGTON CO 1 E
416 35 (2) FSS: MACON
Remarks: Trees N, S.

SAVANNAH
SAVANNAH SAFFOOD FLD 4 E
18 35 (2) F4 FSS: SAVANNAH (LC 234-2257/8)
Remarks: Standing water on rnwys after rains. P-line SW. Wind tree inoper.

TRAVIS See Section IV-A

SHUFORD MUNI See **LAVONIA**

SMART See **MACON**

S EXPRESSWAY See **JONESBORO**

SOUTHER FLD See **AMERICUS**

STATESBORO MUNI 3 NE
181 H52 (3) BL4 F4 FSS: SAVANNAH

STOCKBRIDGE
BELLAH FLD 3 E
750 23 (4) FSS: ATLANTA (LC 344-1551)

STONE MOUNTAIN 3 E
986 H30 (1) S5 F2 FSS: ATLANTA (LC 344-1551)
Remarks: P-line N. Rgt tfc for S apch.

STUCKUP See **EASTMAN**

AIRPORT DIRECTORY

SWAINSBORO
EMANUEL CO 1 W
328 H42 (1) L4 FSS: MACON
Remarks: 100/130 fuel avbl on call.

SYLVANIA
SYLVANIA 6 S
160 H50 (3) BL4 FSS: SAVANNAH

MILLS 1 NE
160 20 (2)

TERRELL COUNTY See DAWSON

TENNGA
ROSTEX SW
840 H20 (1) FSS: CROSSVILLE

THOMASTON
GRANT MEML 3 NW
774 H30 (1) S1 FSS: VALDOSTA
Remarks: Hazardous when wet. Ruf. Unattended.

THOMSON
KNOX 5 N
525 30 (1) S1 FSS: AUGUSTA
Remarks: P-line NW.

THOMASVILLE MUNI *IFR* 7 NE
264 H50 (2) BL4 S5 F4
VFR ADV For APP CON, DEP CON See VADOSTA/MUNI.
Remarks: Bcn & rnwy lgts on request after 10 pm.

TIFTON
MYERS 1 SE
355 H50 (3) BL4 S5 F4 U-1 FSS: ALBANY

TOCCOA 2 NE
950 H37 (1) BL4 S1 F4 U-1 FSS: ANDERSON
Remarks: Unattended.

TRAVIS See SAVANNAH in Section IV-A

VALDOSTA MUNI *IFR* 3 S
204 H56 (3) BL4 S5 F4 FSS: VALDOSTA on Fld
VFR ADV 126.6 ctc APP CON 50 mi out.
Remarks: Lgts on prior request after 2200.

VIDALIA MUNI 2 SE
274 H50 (3) BL4 S3 F4 FSS: ALMA

VILLA RICA
FLYING-S-RANCH 2 NE
1081 18 (2) F2 FSS: ATLANTA
Remarks: Rolling. Irregularly attended.

WALDRONS TREE FARM See ELLAVILLE

WARM SPRINGS
ROOSEVELT FLD 3 N
892 20 (2) FSS: ATLANTA
Remarks: Caution fld erosion. Soft when wet.

WARWICK
ST REGIS 5 S
265 26 (1) FSS: ALBANY
Remarks: P-line N.

WASHINGTON-WILKES CO 4 NW
646 H34 (1) BL4 FSS: ANDERSON

WASHINGTON COUNTY See SANDERSVILLE

WAYCROSS-WARE COUNTY 3 NW
142 H50 (3) BL4 S3 F4 U-1 FSS: ALMA

WAYNESBORO
ROGERS 1 SW
300 27 (1)
Remarks: Trees in apch rnwy 9. P-line in apch rnwy 27. Soft-wet.

WHITE COUNTY See CLEVELAND

WIMPY'S LANDING STRIP See DAHLONEGA

WINDER 2 SE
943 H46 (2) BL4 S1 FSS: ATLANTA
Remarks: Unlgtd obstns SE, SW ends rnwys.

WRIGHTSVILLE 4 S
250 21 (1)
Remarks: P-line in apcnh rnwy.

IDAHO

ABERDEEN MUNI 2 SW
4472 24 (1) F2 FSS: POCATELLO
Remarks: Unattended.

MACKAY 1 SE
4419 38 (1) S5 F3 FSS: POCATELLO

BREDING RANCH 8 NW
4500 25 (1) F2 U-1 FSS: POCATELLO
Remarks: Bldgs W.

ANDERSON DAM
BENNETT FLIGHT STRIP 2 S
4760 18 (1) FSS: BOISE

ANDERSON'S FLD See ASHTON

ANTELOPE VALLEY See GROUSE

ARCO
ARCO 2 S
5328 36 (1) FSS: POCATELLO
Remarks: Soft off gravel when wet. Unattended.

QUAKING ASPEN BUTTE EMGCY 14 SE
5210 25 (1) FSS: POCATELLO

SOLEBERG 5 W
5350 25 (1) FSS: POCATELLO
Remarks: P-line NE.

AIRPORT DIRECTORY

HTON
ANDERSON'S FLD 4 SE
5520 22 (1)

LANTA
GRAHAM AIRSTRIP 10 NW
5692 28 (1)

OMIC CITY
IG SOUTHERN BUTTE EMGCY STRIP 11 W
5120 26 (1) FSS: POCATELLO

OX'S WELL 23 SW
5033 26 (1) FSS: POCATELLO

ITTLE BUTTE 10 NE
5380 29 (1) FSS: POCATELLO

IDWAY 1 N
5000 H21 (1) FSS: POCATELLO

CROFT MUNI 1 E
5425 28 (1) FSS: MALAD CITY
Remarks: P-line W.

R LAKE COUNTY See PARIS

NETT FLGT STRIP See ANDERSON DAM

NARD USFS 1 N
3626 19 (1)

CREEK USFS 1 NE
5750 36 (1) FSS: BOISE
Remarks: Ridge NE. Ruf.

ISLAND See OROFINO

SOUTHERN BUTTE EMGCY STRIP See ATOMIC CITY

SPRINGS USFS 1 NW
6350 27 (1)
Remarks: Soft when wet. Emgcy use only.

CKFOOT MUNI 1 N
4488 H38 (1) FSS: POCATELLO

E
ISE AIR TERMINAL See Section IV-A

ADLEY FLD 3 SW
2637 H30 (1) FSS: BOISE (LC 343-2525)
Remarks: Stay S of river. Rgt tfc SE.

OATING FEATHER 6 NW
2675 30 (1) FSS: BOISE (LC 343-2525)
Remarks: Rolling. No Storage.

ONE 4 NW
2620 26 (1) L4 S5 F4 U-1
FSS: BOISE (LC 343-2525)
Remarks: Helicopter opems.

BONNERS FERRY
BOUNDARY CO 2 NE
2333 H27 (1) BL4 S5 F4 U-1 FSS: SPOKANE

BOUNDARY CO See BONNERS FERRY

BOVILL
HALLS HILLTOP 1 SE
3044 14 (1) S3 F2 FSS: MULLAN

BRADLEY FLD See BOISE

BREDING RANCH See AMERICAN FALLS

BRUCE MEADOWS USFS 20 NW
6404 52 (1) FSS: BOISE

BRUNEAU 3 S
2500 25 (1) FSS: BOISE

BUHL MUNI 2 W
3600 26 (1) L4 S5 F2 FSS: BURLEY
Remarks: Land N of strip when sprinkler sys in opern.

BURLEY
BURLEY MUNI 1 NE
4150 H41 (3) BL4 S5 F4 U-1 FSS: BURLEY on Fld
Remarks: P-line WNW.

REHN RANCH 22 E
4350 16 (1) FSS: BURLEY

CALDWELL MUNI 1 W
2354 H24 (1) BL4 S5 F4 U-1 FSS: BOISE
Remarks: 700' overrun NW; rnwy lgts prior req after 12:00 pm
Rgt tfc rnwy 12.

CAMAS COUNTY See FAIRFIELD

CAPE HORN USFS 3 SE
6635 40 (3) FSS: BOISE
Remarks: P-line E. E/W rnwy crosses road.

CAREY Adj E
4782 24 (1) FSS: BURLEY
Remarks: Unattended. 700' overrun on W end.

CASCADE
CASCADE 2 SE
4739 32 (1) FSS: BOISE
Remarks: Rgt tfc NW.

CASCADE-RESERVOIR 10 NW
4828 25 (1) FSS: BOISE

CAVANOUGH BAY See COOLIN

CAYUSE CREEK USFS 1 NE
3770 20 (1) FSS: MULLAN
Remarks: Land SW; tk-off NE. Exper Pilots only.

AIRPORT DIRECTORY

CHALIS 1 NE
5085 H30 (1) L4 F4 FSS: POCATELLO
Remarks: Hill SW. Use strips. Circle town for lgts & service. Attended days April-October. 6000′ strip avbl. Ngt lndgs should be made to SW.

CHAMBERLAIN USFS Adj N
5765 43 (2) FSS: BOISE
Remarks: Ridge NW; slope SE. Skis winters.

CLIFFS 1 W
5200 20 (1) FSS: BOISE

COEUR D'ALENE AIR TRML 5 NW
2318 H54 (2) BL2 S5 F4 U-1 FSS: SPOKANE

COLD MEADOWS USFS 19 NE
6705 41 (1)
Remarks: Dog leg in rnwy.

COOLIN
CAVANOUGH BAY 3 NE
2400 31 (1) FSS: SPOKANE
Remarks: 9′ sign NE corner of rnwy.

COPPER BASIN See MACKAY

COTTONWOOD MUNI 1 SE
3400 24 (1) S1 FSS: WALLA WALLA
Remarks: Use rnwy.

COUNCIL MUNI 1 NW
2950 20 (1) S1 F2 FSS: BOISE
Remarks: Soft off gravel when wet. Unattended.

COUNTY-CITY See SANDPOINT

COX'S WELL See ATOMIC CITY

CRAIGMONT 1 NW
3770 27 (1) S1 F3 FSS: WALLA WALLA
Remarks: Ditch. Unattended.

DEARY 1 SE
2900 20 (1) *L4 F2

DIETRICH 1 N
4210 24 (1) S1 F2
Remarks: P-line E. Unattended.

DIXIE USFS 3 SW
5200 45 (1) FSS: BOISE

DONNELLY 1 SW
4860 25 (1) FSS: BOISE
Remarks: Skiis winters.

DOWNEY-HYDE MEML Adj E
4950 27 (1) FSS: MALAD CITY

DRIGGS
TETON PEAKS MUNI 1 NE
6169 34 (1) F2 FSS: IDAHO FALLS
Remarks: Soft when wet. Unattended.

DUBOIS MUNI 1 SE
5123 48 (2) FSS: IDAHO FALLS

ELK MEADOWS USFS Adj S
6705 17 (1) F2 FSS: BOISE
Remarks: Exper. Pilots only. Dog leg in rnwy.

ELK RIVER MUNI 1 NE
2850 26 (1) S3 F4 FSS: MULLAN
Remarks: Unattended. Ngt land to the S.

EMMETT MUNI 2 SW
2359 24 (1) FSS: BOISE

FAIRFIELD
CAMAS COUNTY 1 SW
5057 31 (1) S1 F2
Remarks: Use triangular portion in N/S winds. W end soft when wet. N/S strip emgcy only.

FANNING See IDAHO FALLS, FANNING FLD in Section IV-A

FISH LAKE USFS 1 NE
5800 29 (1)
Remarks: Ctn-downdrafts over lake. Exper pilots only.

FLOATING FEATHER See BOISE

FLYING BAR "S" See SHOSHONE

FRIEDMAN MEML See HAILEY

GLENNS FERRY MUNI 1 SW
2536 32 (1) S1 FSS: BOISE
Remarks: Unattended.

GOODING MUNI 3 SW
3729 H49 (3) BL4 S5 F4 U-1 FSS: BURLEY IDL

GRACE-COMMUNITY 2 N
5600 26 (1) FSS: MALAD CITY
Remarks: Unattended. Emgcy use only.

GRAHAM AIRSTIP See ATLANTA

GRANDVIEW 1 NE
2350 23 (1) FSS: BOISE
Remarks: Fuel emgcy only. Tie downs avbl.

GRANGEVILLE
IDAHO CO 1 N
4202 40 (2) *L4 S3 F4 FSS: WALLA WALLA

GRASMERE Adj S
5126 27 (1) FSS: BOISE

GROUSE
ANTELOPE VALLEY Adj W
6100 34 (1)

HAILEY
FRIEDMAN MEML 1 SE
5315 52 (1) S5 F4 U-1 FSS: BURLEY

AIRPORT DIRECTORY

AGIC RESERVOIR 15 SW
4950 26 (2) FSS: BURLEY

LLS HILLTOP See BOVILL

ZELTON MUNI 1 S
4172 29 (1) FSS: BURLEY

ADQUARTERS CTPA 9 N
3242 28 (1) FSS: MULLAN
Remarks: Exper pilots only. Apch from S.

IRYS LAKE See LAKE

L CITY
RACY RANCH 1 SW
5071 33 (1) FSS: BOISE
Remarks: P-line W. Soft when wet.

EDALE MUNI 1 SE
2110 25 (1) FSS: BOISE
Remarks: Bldg 9 P-line NW.

DOO USFS AIRFLD 14 SW
8245 24 (1)

SE HEAVEN 16 NE FSS: MULLAN
Remarks: Ctn-restricted apchs.

E
ODIE RANCH 2 NE
4812 27 (1)

IO CITY Adj SW
3910 H28 (1) FSS: BOISE
Remarks: P-line S. 3700' strip avbl.

IO CO See GRANGEVILLE

.O FALLS FANNING FLD See Section IV-A

N CREEK USFS 15 SE
1662 52 (1) FSS: BOISE

ME CO 3 NE
1035 28 (1) F2 FSS: BURLEY
Remarks: Soft off gravel when wet.

ISON CREEK ARSTP See YELLOW PINE

SPELL BAY USFS 2 NW
2800 36 (1)

AH MUNI 1 SE
1194 27 (1) S1 F2 TPA: 1984 MSL'
FSS: WALLA WALLA
Remarks: Rgt tfc SE. Unattended.

.OGG
OSHONE COUNTY 2 W
209 H35 (1) L4 S5 F4 U-1 FSS: MULLAN
Remarks: P-line W. Lgts on request thru unicom.

KOOSKIA MUNI 1 S
1265 19 (1) S1 FSS: WALLA WALLA
Remarks: P-line E. Unattended.

K V RANCH See PORTHILL

LAKE
HENRYS LAKE 12 E
6596 49 (2)
Remarks: P-line ENE.

LANDMARK USFS 23 NW
6680 42 (1) FSS: BOISE

LARSON BAR AIRSTRIP See OROFINO

LEADORE Adj SE
6020 41 (2) FSS: DILLON
Remarks: P-line N.

LEWISTON-NEZ PERCE CO 2 S
1438 H50 (2) BL4 S5 F4, JP1 FSS: WALLA WALLA
Remarks: P-line NE.

LITTLE BUTTE See ATOMIC CITY

LOWMAN
WARM SPRINGS CREEK 13 NE
4650 30 (1)
Remarks: Emgcy only.

MACKAY
COPPER BASIN 11 SW
7830 47 (1) FSS: POCATELLO
Remarks: Emgcy only.

AMERICAN FALLS
AMERICAN FALLS 2 NE
5891 34 (1) S1 F2 FSS: POCATELLO
Remarks: Unattended.

MAGEE USFS Adj SE
3002 28 (1) FSS: MULLAN

MAGIC RESERVOIR See HAILEY

MAHONEY CREEK USFS 20 SE
4505 20 (1)

MALAD CITY 3 SW
4503 H50 (1) BL4 S1 F4 FSS: MALAD CITY on Fld

MALTA Adj NW
4500 40 (2) F2 FSS: BURLEY
Remarks: P-line S, W.

MARSING
SYMMS 2 NE
2696 25 (1) FSS: BOISE
Remarks: P-line SE.

MAY Adj E
5110 32 (1) FSS: POCATELLO
Remarks: P-line W.

AIRPORT DIRECTORY

McCALL 1 S
5031 52 (1) S1 F4 FSS: BOISE

MESA ORCHARDS LANDING STRIP 1 NW
3000 20 (1) FSS: BOISE
Remarks: Tie down only.

MIDVALE MUNI 1 W
2616 32 (1) FSS: BOISE
Remarks: Soft when wet.

MIDWAY See ATOMIC CITY

MONTPELIER Adj NE
5975 26 (1) F2
Remarks: Hills S. Tk-off N. Soft-Wet. Unattended.

MOOSE CREEK USFS Adj SW
2400 41 (2)
Remarks: Exper pilots only. One way apchs. Emgcy only. Lnd to NE on NE/SW rnwy; land at Grangeville or Missoula for briefing prior to using.

MOOSE CREEK See OROFINO

MOUNTAIN HOME MUNI 2 W
3161 35 (1) L4 S3 F4 FSS: BOISE

MURPHY Adj E
2825 25 (1) FSS: BOISE

MURPHEY HOT SPRINGS See THREE CREEK

NAMPA
RITCHEY FLD 2 E
2535 H32 (1) L4 S5 F4 U-1 FSS: BOISE
Remarks: Lgts on prior req after 2300.

NEW MEADOWS Adj N
3865 24 (2) FSS: BOISE
Remarks: P-line S.

NEZ PERCE MUNI Adj E
3132 16 (1) S5 F3 FSS: WALLA WALLA
Remarks: Tie down only.

OAKLEY MUNI Adj S
4600 40 (1) FSS: BURLEY
Remarks: P-line N.

OROFINO
BIG ISLAND 15 NE
1300 25 (1) FSS: MULLAN

LARSON BAR AIRSTRIP 28 NE
1400 35 (1) FSS: MULLAN
Remarks: Exper pilots only.

MOOSE CREEK RANCH 59 SE
2389 32 (1) FSS: MULLEN
Remarks: Attended May-Oct.

OROFINO MUNI 1 NW
1003 26 (1) S5 F4 FSS: MULLEN
Remarks: Rgt tfc SE.

PARAMA 1 SE
2225 26 (1) S1 F2 FSS: BOISE
Remarks: P-line NW. Rgt tfc to S. Attnd Apr-Sept.

PARIS
BEAR LAKE CO 2 NE
5928 H57 (2) BL4 F4 FSS: MALAD CITY
Remarks: Unattended.

PAYETTE MUNI 2 NE
2228 30 (1) F2 FSS: BOISE

PICABO Adj NE
4880 20 (1) FSS: BURLEY
Remarks: Ridge SE.

PINE AIRSTRIP 1 S
4232 27 (1) FSS: BOISE

POCATELLO MUNI See Section IV

PORTHILL
K V RANCH 3 S
2300 28 (1)
Remarks: Clsd winters.

PRAIRIE
SMITH PRAIRIE Adj SE
4900 55 (1)
Remarks: Tie downs. Trees NE. Emgcy only.

PRESTON 2 NW
4726 32 (1) FSS: MALAD CITY
Remarks: Located on Plateau. Unattended Sundays.

PRIEST RIVER MUNI 1 N
2180 25 (1) FSS: SPOKANE
Remarks: Unattended.

QUAKING ASPEN BUTTE EMGCY See ARCO

REHN RANCH See BURLEY

REXBURG-MADISON CO 1 NW
4858 H30 (1) BI4 S5 F4 FSS: IDAHO FALLS
Remarks: Rnwy lgts dusk plus 2 hrs Bcn on request.

RICHFIELD-REYNOLDS 1 SW
4320 26 (1)
Remarks: P-line E.

RIDDLE-EMERGENCY Adj SW
5370 42 (1) FSS: BOISE
Remarks: Fence N, P-line S.

RIGBY 1 S
4838 25 (1) S1 FSS: IDAHO FALLS
Remarks: Soft when wet. Unattended.

RITCHEY FLD See NAMPA

AIRPORT DIRECTORY

ICKFORD MUNI Adj E
4465 28 (1) F4 FSS: POCATELLO

ANTHONY MUNI 1 SE
4966 39 (1) S1 F2 FSS: IDAHO FALLS
Remarks: Soft when wet. Unattended.

MARIES MUNI 2 NW
2 127 21 (1) L4 S1 F2 FSS: MULLAN
Remarks: Rgt tfc SE. Soft off gravel when wet. Unattended. Ditch end rnwy 21.

JMON 3 S
4045 H36 (1) BL4 S3 F4 U-1 FSS: DILLON
Remarks: Soft when wet. Bcn on request. Rgt tfc pat when tk-off or lndg to S.

IDPOINT
OUNTY-CITY 1 NW
2126 H32 (1) BL4 S5 F4 U-1 FSS: SPOKANE
Remarks: Soft off pavement when wet. Skiis winters.
ARER USFS 1 NE
2600 21 (1)
Remarks: Exper pilots only; lctd narrow winding river canyon.

SHONE
LYING BAR "S" 4 NW
3900 15 (1) S1 F2
Remarks: Pwr-line 2600' from W end of rnwy.

IOSHONE MUNI Adj NE
3950 27 (1)

SHONE COUNTY See KELLOGG

'A RANCH See STANLEY

TE CREEK 3 NW
1660 27 (1) FSS: BOISE
Remarks: Rolling. P-line NE.

H PRAIRIE PRAIRIE

A SPRINGS MUNI 1 SE
5842 35 (1) FSS: MALAD CITY
Remarks: Soft off gravel when wet.

.BERG See ARCO

IT LAKE 1 W
2500 22 (1) FSS: SPOKANE
Remarks: Slope each end.

ILEY
.VA RANCH 4 NW
5500 25 (1) F2

ANLEY MUNI 1 SW
5300 43 (1) F2

OMAS CREEK 31 N
4400 19 (1)
Remarks: Land NE, tk-off SW.

STONE See BOISE

SYMMS See MARSING

TETON PEAKS MUNI See DRIGGS

THOMAS CREEK See STANLEY

THREE CREEK
MURPHY HOT SPRINGS 9 SW
5850 32 (1)
Remarks: P-line SE.

TRACY RANCH See HILL CITY

TRIANGLE 1 NW
5099 26 (1) F2 FSS: BOISE
Remarks: Irregular attended.

TWIN FALLS MUNI (JOSLIN FLD) 4 S
4148 H59 (2) BL4 S5 F4, JP1 FSS: BURLEY (DL)
Remarks: Excavation 15' deep, 30' wide lctd 165' off NW end of rnwy 12-30. Mrkd by line of red flags extended 36'' AGL on SE edge of excavation paralleling rnwy. Rnwy 12-30 clsd all acft over 12500 lbs.

VICTOR MUNI (BENNETT FLD) 1 SE
6240 31 (1) FSS: IDAHO FALLS
Remarks: P-line SE.

WARM SPRINGS CREEK See LOWMAN

WARREN USFS Adj NW
5912 25 (1) FSS: BOISE
Remarks: Tk-off NW. Canynn SE.

WEISER MUNI 2 S
2120 H26 (1) BL4 S3 F4 FSS: BOISE
Remarks: Soft when wet.

WOODIE RANCH See HOWE

YELLOW PINE
JOHNSON CREEK ARSTP 3 S
4900 37 (1)

ILLINOIS

ADAMS See ROSSVILLE

ALBERTUS See FREEPORT

ALEDO
MERCER COUNTY 3 N
740 22 (1) L4 S3 F4 FSS: BURLINGTON
Remarks: Soft when wet.

ALTON
CIVIC MEML *IFR* 5 E
541 H51 (2) BL4 S5 F4, JP1 U-1
FSS: ST LOUIS (LC HO 5-4112)
VFR ADV: For APP CONN, DEP CON See ST LOUIS/LAMBERT ST LOUIS MUNI, MISSOURI in Section IV-A
Remarks: P-line NW. Hwy N. Use rnwys

AIRPORT DIRECTORY

ANTIOCH 2 SW
769 21 (2) S3 F2 FSS: MILWAUKEE
Remarks: P-line SW.

ARLO PEPLOW See BURLINGTON

ARNOLD See FRANKFORT

AURORA
AURORA-AIRWAYS 2 NW
701 H25 (1) S5 F4 U-1 FSS: JOLIET
Remarks: Clsd acft over 10,000 lbs. Clsd ngt opems.

AURORA MUNI *IFR* 6 W
706 H36 (1) BL4 S3 F4 U-1 FSS: JOLIET

BARRY
KLASSING 3 SW
Not available 17 (1)
Remarks: P-line E. Minor acft repairs.

BAUGHMAN See JERSEYVILLE

BECKERMAN FLD See MT CARMEL

BENTON MUNI 1 NW
445 H28 (1) BL4 S1 F2 FSS: CAPE GIRARDEAU

BLANDINSVILLE
WILLOW GROVE 3 SE
675 26 (1) S1 F2
Remarks: P-lines N. Unattended.

BLOOMINGTON
BLOOMINGTON MUNI *IFR* 3 E
875 H37 (1) BL4 S5 F4 FSS: JOLIET
Remarks: Pole 600' NW end rnwy 13

PANNIER 4 W
835 19 (1) FSS: JOLIET

BLUE MOUND
McCOY 4 W
615 19 (2) *L4 S1 F2 FSS: VANDALIA

BOSTON FLD See PAW PAW

BRADFORD
RINKENBERGER 4 NE
795 26 (2) BL2 F2 FSS: JOLIET
Remarks: P-line.

BRESSON See COMTON

BROWNSTOWN 5 SE
572 17 (1)
Remarks: P-line SE.

BRUSSELS
SCHULZE'S 2 SE
410 23 (1)
Remarks: P-lines S.

BUNKER HILL
RUST 1 S
Remarks: P-line E.
Not available 18 (1) S3

BURLINGTON
ARLO PEPLOW 7 N
820 13 (1)

CAIRO 4 NW
321 H36 (2) BL4 S5 F4 U-1 FSS: CAPE GIRARDEAU

CAMPBELL See GRAYS LAKE

CANTON
INGERSOLL FLD 2 NW
700 28 (2) *L4 S1 F4 U-1 FSS: JOLIET

CAPITAL See SPRINGFIELD, CAPITAL in Section IV-A

CARBONDALE
CARBONDALE-MURPHYS BORO SOUTHERN ILLINOIS *IFR* 3 N
411 H41 (2) BL4 S5 F4 U-1 FSS: CAPE GIRARDEAU

MILLER 5 SE
580 18 (1) FSS: CAPE GIRARDEAU

CARLINVILLE
KLIMUT 2 E
622 26 (1)
Remarks: P-line E.

CARMI
CARMI MUNI 1 NE
372 H27 (1) BL4 S1 F4 U-1 FSS: TERRE HAUTE
Remarks: P-line S.

PEARCE 3 SE
365 26 (1) FSS: TERRE HAUTE
Remarks: P-line W.

CASEY 1 NW
645 H22 (1) F2 U-1 FSS: VANDALIA
Remarks: Unattended. Right traffic S, SW and W.

CENTRALIA MUNI *IFR* 2 SE
534 H35 (1) BL4 S3 F4 U-1 FSS: VANDALIA
Remarks: E/W strip soft-wet.

CHAMPAIGN UNIV OF ILLINOIS-WILLARD See Section IV-A

CHARLES WALGREEN FLD See DIXON

CHATSWORTH 1 S
742 33 (2) F2 FSS: CHAMPAIGN
Remarks: P-lines E, N.

CHICAGO
CHICAGO-HAMMOND 22 S
615 30 (6) S5 F4 FSS: JOLIET CL
Remarks: Attended days only.

AIRPORT DIRECTORY

CHICAGO-HINSDALE 16 SW
705 H24 (1) S5 F4 U-1 FSS: JOLIET (DL)
Remarks: P-line S, W. Rnwy 27 threshold displaced 200'. Use strips.

CHICAGO-MIDWAY See Section IV-A

CHICAGO-O'HARA INTL See Section IV-A

HOWELL 14 SW
600 33 (3) S5 F4 U-1
Remarks: Soft when wet. Use strips.

MEIGS See Section IV-A

PAL-WAUKEE *IFR* 10 NW
646 H37 (2) BL4 S5 F4 FSS: JOLIET (DL)
VFR ADV: For APP CON, DEP CON See CHICAGO/CHICAGO O'HARE INTL in section IV-A

ICAGO HEIGHTS
INGS FLD 4 SW
760 H20 (1) *L4 S5 F4 U-1
FSS: JOLIET (LC BI 2-3111-2)

ICAGO (WEST CHICAGO) DUPAGE CO. See Section IV-A

ICAGOLAND See WHEELING

/IC MEML See ALTON

LES CO MEML See MATTON
LUMBIA
B 1 NW
420 32 (1) *L F2 FSS: ST LOUIS
Remarks: Bldg SE.

MPTON
' DAVIS ARPT 2 NW
960 13 (1)

ITON
RESSON 4 N
770 25 (1) *L4 S1 F4 U-1 FSS: ROCKFORD
Remarks: Thershold displaced 320 S end, 270 N end. Unattended weekends.

TTONWOOD See ROCKFORD

STAL LAKE *IFR* 1 SW
890 H30 (1) L4 S5 F4 U-1 FSS: JOLIET (DL)
VFR ADV: For APP CON, DEP CON See CHICAGO/CHICAGO O'HARE INTL in Section IV-A

CY See HARVARD

VILLE
ERMILION CO *IFR* 4 NE
686 H40 (2) BL4 S5 F4 U-1 FSS: LAFAYETTE

CATUR MUNI *IFR* 4 E
679 H53 (3) BL4 S5 F4 U-1 FSS: VANDALIA (DL)

DE KALB MUNI 2 E
900 H30 (1) BL4 S5 F4 U-1 FSS: JOLIET

DIXON
CHARLES WALGREEN FLD 2 SE
786 H31 (2) BL4 S5 F4 U-1 FSS: ROCKFORD

DOWNTOWN ARPK See EAST ST LOUIS

DUPAGE CO See CHICAGO (WEST CHICAGO), DUPAGE CO in Section IV-A

EAST MOLINE
WOODS 2 E
575 21 (1) S1 F2 FSS: BURLINGTON (LC 752-4734)
Remarks: P-line S.

EAST ST LOUIS
DOWNTOWN ARPK 4 NE
420 H27 (1) L4 S3 F4 U-1 FSS: ST LOUIS (DL)

LAKESIDE 6 NE
420 29 (3) L4 S5 F4 U-1 FSS: ST LOUIS

PARKS METROPOLITAN 3 S
413 H16 (2) S1 FSS: ST LOUIS (LC PE 1-4411)
Remarks: 3560' strip available.

EFFINGHAM-COUNTY MEML 3 S
585 H25 (1) L4 S5 F4 U-1 FSS: VANDALIA
Remarks: N./S strip soft-wet.

ELGIN *IFR* 2 N
790 H24 (1) BL4 S5 F4 U-1 FSS: JOLIET (DL)
Remarks: Rgt traffic runways 18, 22, 27; rolling.

FAIRFIELD MUNI 2 W
416 H20 (1) BL4 F4 FSS: VANDALIA
Remarks: Ruf. Sod unsafe, use rnwys. Irregularly attended.

FLORA MUNI 2 E
469 H35 (1) BL4 S5 F4 FSS: VANDALIA

FLYING CLUB See RUSHVILLE

FRANKFORT
ARNOLD 1 SE
720 25 (1) L4 S3 F4 FSS: JOLIET
Remarks: Lights dusk-mid night. Minor repairs

FREEPORT
ALBERTUS 3 SE
847 H36 (1) BL4 S5 F4 U-1 FSS: ROCKFORD
Remarks: P-line S.

GALESBURG MUNI 3 W
763 H38 (2) BL4 S5 F4 U-1 FSS: JOLIET
Remarks: Use rnwy.

GALT FLD See GREENWOOD

GRAYS LAKE
CAMPBELL 2 SW
785 H26 (1) L4 S5 F2, 4

AIRPORT DIRECTORY

GREATER KANKAKEE See **KANKAKEE**

GREATER PEORIA See **PEORIA, GREATER PEORIA** in Section IV-A

GREATER ROCKFORD See **ROCKFORD, GREATER ROCKFORD** in Section IV-A

GREENWOOD
GALT FLD 1 NE
875 H32 (1) L4 S5 F4 U-1 FSS: ROCKFORD
Remarks: N/S rnwy soft when wet. Lghts oper dusk-1:00 AM. 377′ displaced threshold.

HAMILTON See **POLO**

HARRISBURG-RALEIGH *IFR* 5N
399 H33 (1) BL4 S5 F3 U-1 FSS: CAPE GIRARDEAU
Remarks: Soft shoulders.

HARVARD
DACY 1 SW
930 35 (3) L S5 F4 FSS: ROCKFORD

HAVANA 5 E
510 21 (1) S1 F4 FSS: VANDALIA
Remarks: Unattended. E end E/W rnwy soft when wet.

HEBRON 4 S
868 26 (2) S1 F2 FSS: ROCKFORD
Remarks: Unattended daylight hrs Wed, Sat, Sun.

HIGHLAND-WINET 3 NE
535 26 (1) L4 S3 F4 FSS: VANDALIA
Remarks: P-line S. Soft-wet. Lights available through Vandalia.

HILVETY See **MOWEAQUA**

HOPEDALE
L & L INC 4 S
690 22(2) *L4 S5 F2
Remarks: P-line W fence S.

ILLINI See **URBANA**

INGERSOLL FLD See **CANTON**

JACKSONVILLE MUNI 2 N
623 H40 (1) BL4 S5 F4 U-1 FSS: VANDALIA

J B See **COLUMBIA**

JERSEYVILLE
BAUGHMAN 1 SE
525 18 (1) S1 FSS: ST LOUIS
Remarks: P-lines N & S.

JERSEYVILLE-AVIATION INC 2 SE
640 23 (1) F2 FSS: ST LOUIS
Remarks: Right traffic S.

JOLIET
JOLIET MUNI *IFR* 4 W
582 H30 (1) BL4 S5 F4 FSS: JOLIET on Fld
Remarks: Use rnwys.

WILHELMI FLD 2 S
635 25 (1) S5 F2 FSS: JOLIET (LC 725-3144

JONESBORO
KOLLEHNER 2 SW
412 13 (1) FSS: CAPE GIRARDEAU

KANKAKEE
GREATER KANKAKEE 3 S
621 H42 (2) BL4 S5 F4 U-1 FSS: JOLIET
KANKAKEE 3 SW
625 26 (1) L4 S5 F3 U-1 FSS: JOLIET
Remarks: Ditch N. Use strips

KANSAS
GLENN H NICHOLSON 2 SE
750 19 (1) F4
Remarks: Unattended.

KEWANEE
KEWANEE 3 S
825 20 (1) S5 F4 FSS: JOLIET
KEWANEE ARPK 5 NE
760 20 (2) S1 F4 FSS: JOLIET
Remarks: P-line NW, SE. Unattended.

KLASSING See **BARRY**

KLIMUT See **CARLINVILLE**

PEARCE See **CARMI**

KOLLEHNER See **JONESBORO**

LACON
MARSHALL COUNTY 1 E
554 H22 (1) BL4 S5 F4 U-1 FSS: JOLIET
Remarks: 1900′ strip available.

LADD FLD 2 N
675 24 (1)
Remarks: P-line E & W.

LAKESIDE See **EAST ST LOUIS**

LAWRENCEVILLE-VINCENNES MUNI 4 NE
428 H52 (4) BL4 S5 F4 FSS: TERRE-HAUTE

LEWIS-LOCKPORT See **LOCKPORT**

LINCOLN
LOGAN COUNTY 2 NE
595 H27 (1) BL4 S5 F4 U-1 FSS: VANDALIA
Remarks: 3500′ strip available.

LITCHFIELD MUNI 1 SW
690 H27 (1) BL4 S5 F4 U-1 FSS: VANDALIA
Remarks: Shoulders wet. When using E/W rnwy.

LITTON FLD See **WOODHULL**

L & L INC See **HOPEDALE**

AIRPORT DIRECTORY

)CKPORT
LEWIS-LOCKPORT 2 NW
670 H22 (1) BL4 S5 F4 U-1 FSS: JOLIET (LC 725-3144)
Remarks: Use strips.

)GAN COUNTY See LINCOLN

MBARD
ITCHELL FLD 2 NW
740 H25 (2) L4 S5 F4 U-1 FSS: JOLIET (DL)
Remarks: P-lines S, SW. Water tank WNW. Twr NW, ENE.

ORK TOWNSHIP 2 SW
740 17 (2) S5 F4 U-1 FSS: JOLIET (LC 725-3144)
Remarks: Use strips; unlgtd 123' twr & lines aprx 3000' W.

CHESNEY See ROCKFORD

COMB 2 E
695 24 (2) S1 F4 U-1 FSS: BURLINGTON
Remarks: P-lines N, E.

NITO
ADDELL 4 W
500 27 (2) *L4 S1 F4 U-1 FSS: JOLIET

RION
ILLIAMSON COUNTY 3 W
472 H51 (2) BL4 S5 F4 U-1 FSS: CAPE GIRARDEAU
Remarks: Pole 450' from end rnwy 20.

RSHALL COUNTY See LACON

SS See WOODSTOCK

TTOON
OLES CO MEML *IFR* 4 E
721 H37 (2) BL4 S5 F4 U-1 FSS: VANDALIA
Remarks: P-line N.

OY See BLUE MOUND

EANSBORO MUNI 1 S
412 H18 (1) F2 FSS: CAPE GIRARDEAU
Remarks: Unattended.

GS See CHICAGO, MEIGS in Section IV-A

AL See WAUKEGAN

RCER COUNTY See ALEDO

RCHANDISE MART See CHICAGO

TROPOLIS MUNI 2 NW
380 H25 (2) L4 S3 F4 U-1 FSS: PADUCAH

LER See CARBONDALE

CHELL FLD See LOMBARD

INE QUAD CITY See Section IV-A

MONEE
SANGER 4 SE
795 26 (2) *L4 S5 F4 FSS: JOLIET

MONMOUTH MUNI 1 NE
770 24 (1) FSS: BURLINGTON
Remarks: Soft when wet. Unattended.

MONTGOMERY CO FLYING CLUB See HILLSBORO

MORRIS MUN *IFR* 4 N
588 H29 (1) BL4 S3 F4 FSS: JOLIET

MT CARMEL
BECKERMAN FLD 3 W
424 21 (1) S3 F2 FSS: TERRE HAUTE
Remarks: P-line N.

MT CARMEL MUNI 12 NE
430 H45 (2) BL4 S1 F4 FSS: TERRE HAUTE
Remarks: P-line N.

MT HAWLEY See PEORIA

MT VERNON MUNI 3 E
473 H40 (2) BL4 S5 F4 U-1 FSS: VANDALIA

MOWE AQUA
HILVETY 2 NE
680 21 (2) S3 F2 FSS: VANDALIA
Remarks: P-line N.

NICHOLSON See KANSAS

NORTHBROOK
SKY HARBOR *IFR* 1 NW
681 H25 (2) L4 S5 F4 U-1 FSS: JOLIET (DL)
VFR ADV: For APP CON, DEP CON See CHICAGO/CHICAGO O'HARE INTL in Section IV-A
Remarks: Ctc unicom before lndg. Rstd to acft under 12,000 lbs.

OLNEY
OLNEY-NOBLE 4 W
470 H36 (1) BL4 S3 F4 U-1 FSS: VANDALIA
Remarks: Use rnwy. Stay on hard surface.

ULRICH 2 E
537 30 (1) S5 F4 FSS: VANDALIA
Remarks: P-lines N.

OTTAWA 1 NW
615 H23 (1) *L S3 F4 U-1 FSS: JOLIET
Remarks: P-line N. Right traffic rnwys 18, 22 and 27. Displaced thresholds rnwy 5-23 170' SW, 77' NE.

PAL-WAUKEE See CHICAGO

PANNIER See BLOOMINGTON

PARKS METROPOLITAN See EAST ST LOUIS

AIRPORT DIRECTORY

PARIS
PATRICK 3 W
709 28 (1) S1 FSS: TERRE HAUTE

STEWART 1 S
742 22 (1) L4 S1 F2 FSS: TERRE HAUTE
Remarks: Fee. Circle field for lights.

PATRICK See PARIS

PAW PAW
BOSTON FLD 6 E
700 13 (1) F2

PECATONICA 1 N
750 24 (1) S5 F2 FSS: ROCKFORD
Remarks: Unattended weekends. Soft-wet.

PEKIN MUNI 5 SW
527 H30 (1) L4 S5 F4 FSS: JOLIET

PEORIA
GREATER PEORIA See Section IV-A

MT HAWLEY 6 N
800 26 (3) L4 S5 F4 FSS: JOLIET (LC 725-3144)
Remarks: P-lines S, NE, SE.

PEOTONE 1 SW
710 25 (1) FSS: JOLIET
Remarks: P-line N. Right traffic S. Unattended

PIPER See PRINCETON

PLAINFIELD 2 NE
630 23 (1) S5 F2 FSS: JOLIET (LC 725-3144)
Remarks: Hwy W. Soft when wet.

POLO
HAMILTON 2 NE
895 26 (2) *L4 S1 F4 U-1 FSS: ROCKFORD
Remarks: P-line E.

PONTIAC-FLYING CLUB 1 S
646 22 (1) F2
Remarks: Unattended.

PRINCETON
PIPER 2 E
690 25 (2) *L F4 FSS: JOLIET

PROSPERI See TINLEY PARK

QUAD CITY See MOLINE, QUAD CITY in Section IV-A

QUINCY MUNI-BALDWIN FLD *IFR* 9 E
769 H54 (3) BL4, 6 S5 F4 FSS: QUINCY on Fld

REED See SAN JOSE

RINKENBERGER See BRADFORD

ROBINSON MUNI 4 E
453 H34 (2) L4 S1 F4 U-1 FSS: TERRE HAUTE
Remarks: Poles S.

ROCHELLE MUNI 2 S
780 H25 (1) S1 F2 FSS: ROCKFORD
Remarks: P-line E. Unattended

ROCKFORD
COTTONWOOD 3 NW
745 23 (1) S1 F2 FSS: ROCKFORD (LC 965-6758)

GREATER ROCKFORD See Section IV-A

MACHESNEY 5 NE
732 32 (3) S5 F4 U-1 FSS: ROCKFORD (LC 965-6758)
Remarks: P-line E, SE.

ROCKTON
WAGON WHEEL 1 S
855 H32 (1) *L4 FSS: ROCKFORD

ROSELLE FLD Adj W
795 H25 (1) L4 S5 F4 U-1 FSS: JOLIET (L

ROSSVILLE
ADAMS 5 SE
700 22 (1)

RUSHVILLE
FLYING CLUB 2 NE
690 24 (1) F2 FSS: QUINCY

RUST See BUNKER HILL

SALEM-LECKRONE 2 NW
571 H30 (1) BL4 S5 F4 U-1 FSS: VANDALIA
Remarks: Use rnwys only. 4070′ strip avail.

SANDWICH 1 SW
670 21 (2) S5 F4 U-1 FSS: JOLIET

SANGER See MONEE

SAN JOSE
REED 2 SW
562 19 (1) S1

SAVANNA
STRANSKY MEML 3 SE
616 H25 (1) S1 F4 FSS: BURLINGTON
Remarks: P-line NW.

SCHULZE'S See BRUSSELS

SHELBYVILLE
SHELBY COUNTY 3 W
618 27 (2) S1 F4 FSS: VANDALIA
Remarks: P-lines NW, SW, SE.

SKY HARBOR See NORTHBROOK

SOUTHERN ILLINOIS See CARBONDALE-MURPHYSBORO

AIRPORT DIRECTORY

'ARTA-COMMUNITY 2 N
532 H33 (1) BL4 F4 FSS: CAPE GIRARDEAU

-RINGFIELD CAPITAL See Section IV-A

ARVED ROCK AIR PARK See UTICA

-ERLING-ROCK FALLS-WHITESIDE CO 3 S
645 H39 (1) BL4 S5 F4 U-1 FSS: BURLINGTON
Remarks: P-lines SW. Use rnwys only.

EWART See PARIS

)CKTON 2 SE
940 21 (1) *L4 F2 FSS: ROCKFORD

RANSKY MEML See SAVANNA

REATOR AIR SERVICE 2 NE
650 H22 (1) L4 S3 F4 U-1 FSS: JOLIET
Remarks: 2500' strip available. P-line E.

LIVAN COMMUNITY 5 W
680 32 (1) L4 S3 F4 U-1 FSS: VANDALIA

AMORE 1 SE
840 25 (4) F2 FSS: JOLIET
Remarks: Right traffic NW take-off. P-line NE, E, SE.

FLORVILLE MUNI 25 W
615 H22 (1) BL4 F4 U-1 FSS: VANDALIA

WVILLE
ALL 3 SW
Unkn 12 (1) F2
Remarks: P-line E.

LEY PARK
ROSPERI 1 SW
695 24 (2) *L S3 F4 U-1 FSS: JOLIET
Remarks: Soft when wet.

COLA FLYING SERVICE 2 SW
665 27 (1) S5 F2 FSS: CHAMPAIGN
Remarks: P-line E.

ICH See OLNEY

V OF ILLINOIS-WILLARD See CHAMPAIGN, UNIV OF ILLINOIS
LLARD in SECTION IV-A

ANA
LINI 2 NE
735 H25 (1) *L4 S5 F4
FSS: CHAMPAIGN (LC 822-5211)

CA
ARVED ROCK AIR PARK 1 SE
460 31 (1) FSS: JOLIET
Remarks: Rgt tfc take-off W. Fee. Wind under 13 knots all tk-offs rnwy 28, lndgs rnwy 10, attended June-Aug.

DALIA MUNI *IFR* 2 NW
532 H39 (1) BL4 S3 F4 FSS: VANDALIA on Fld

VERMILION CO See DANVILLE

WADDELL See MANITO

WAGON WHEEL See ROCKTON

WAUKEGAN
WAUKEGAN 3 NW
725 24 (3) S5 F4 U-1 FSS: MILWAUKEE (DL)
Remarks: P-line E.

WAUKEGAN MEML 5 NW
714 H35 (2) BL4 S5 F4 U-1 FSS: MILWAUKEE

W DAVIS See COMPTON

WHEELING
CHICAGOLAND *IFR* 3 NW
668 H33 (3) BL4 S5 F4 U-1 FSS: JOLIET (DL)
VFR ADV: For APP CON, DEP CON See CHICAGO-CHICAGO-O'HARE INTL in Section IV-A
Remarks: Lights NE-SW rnwy only.

WILHELMI FLD See JOLIET

WILLIAMSON COUNTY See MARION

WILLOW GROVE See BLANDINSVILLE

WINGS FLD See CHICAGO HEIGHTS

WOODHULL
LITTON FLD 1 NW
800 23 (1) S1 F2
Remarks: P-line N, S.

WOODS See EAST MOLINE

WOODSTOCK
MASS 1 NW
890 21 (1) L4 F2
FSS: ROCKFORD

YORK TOWNSHIP See LOMBARD

INDIANA

ACE See ANDERSON

ALEXANDRIA 3 SE
900 23 (1) *L4 F4 FSS: INDIANAPOLIS
Remarks: Bcn opers prior request.

ANDERSON
ACE 4 S
910 40 (2) F2 FSS: INDIANAPOLIS

ANDERSON MUNI *IFR* 3 E
913 H43 (2) BL4 S5 F4 FSS: INDIANAPOLIS

ANGOLA
TRI-STATE 4 W
988 H28 (3) BL4 S5 F4 U-1 FSS: FORT WAYNE
Remarks: P-line SW.

AIRPORT DIRECTORY

ARETZ See **LAFAYETTE**

ARGOS
SCOTT FLD 3 E
800 17 (1) L4 F2

AUBURN DE KALB R S
881 H36 (1) L4 S3 F4 FSS: FORT WAYNE

BAER FLD See **FT WAYNE, BAER FLD** in Section IV-A

BAILEY See **LOWELL**

BEDFORD
GRISSOM MUNI 3 SE
728 H31 (1) L4 S5 F4 U-1 FSS: INDIANAPOLIS

BLACK HAWK See **SHERIDAN**

BLOOMINGDALE
PORT O'WOODS 3 N
560 33 (1) S3 F2 FSS: TERRE HAUTE

BLOOMINGTON
MONROE CO *IFR* 4 SW
840 H38 (1) L4 S3 F4 U-1 FSS: INDIANAPOLIS
Remarks: Use strips, rnwys. Bcn on prior request. Fee for commercial acft.

BLUFFTON
MILLER 3 SW
845 26 (2) B S5 F2 U-1 FSS: FORT WAYNE
Remarks: Rgt tfc E, S. Depression near ctr E/W strip.

BROWNSBURG 1 S
882 26 (2) *L1 S3 F4 U-1
FSS: INDIANAPOLIS (LC CH-4-9561)

CHAIN-O-LAKES See **SOUTH BEND**

CHEEVER See **DeMOTTE**

COLUMBUS MUNI 4 S
612 H45 (2) BL4 S5 F4, JP1 U-1 FSS: INDIANAPOLIS
Remarks: Use pavement only.

COMBS See **LEBANON**

CONNERSVILLE
METTEL 3 N
867 H25 (1) BL4 S1 F4 U-1 FSS: INDIANAPOLIS

CONVERSE 1 SW
840 H18 (2)
Remarks: Land on mat only.

CRANDALL FLD See **SPRINGPORT**

CRAWFORDSVILLE MUNI 4 S
804 32 (3) B *L4 S5 F4 FSS: LAFAYETTE
Remarks: P-line NW. Arpt clsd til o/a Nov 10 for extension of rnwy 6-24.

CULVER 2 E
815 26 (2)

DAVIESS See **WASHINGTON**

DECATUR
DECATUR-HI-WAY 3 E
842 26 (1) S3 F2 FSS: FORT WAYNE
Remarks: Soft when wet.

GAGE Adj S
814 22 (2) S3 F2 FSS: FORT WAYNE
Remarks: Land N on N/S strip. P-line NW.

DELAWARE CO See **MUNCIE, DELAWARE CO** in Section IV-A

DeMOTTE
CHEEVER 2 SE
690 29 (2) S3 F2
Remarks: P-lines S, E. Unattended.

DRESS MEMORIAL See **EVANSVILLE, DRESS MEMORIAL** in Section IV-A

DYER
TRIANGLE 1 N
624 31 (3) *L4 S5 F2 FSS: JOLIET
Remarks: Soft when wet. Use strips.

EAST RICHMOND See **RICHMOND**

ELKHART
ELKHART MUNI 3 NW
779 H40 (2) L4 S5 F4 U-1 FSS: SOUTH BEND (SL

MIDWAY 5 SE
780 26 (2) S5 F4 FSS: SOUTH BEND (SL
Remarks: P-lines S, W.

ELWOOD 2 S
866 23 (2) *L4 S5 F4 U-1 FSS: INDIANAPOLIS
Remarks: P-line W.

EVANSVILLE
DRESS MEMORIAL See Section IV-A

SKYLANE 2 NW
380 26 (2) F2 U-1 FSS: EVANSVILLE (LC HA 2-81[illegible]
Remarks: P-line S.

FORT WAYNE
BAER FLD See Section IV-A

SMITH FLD 4 N
833 H33 (3) BL2 S5 F4
FSS: FORT WAYNE (LC 747-31[illegible]
Remarks: Bndry lgts oper til 11 PM, thereafter on req.

FRANKFORT-CLINTON CO MUNI 2 W
857 H30 (1) F4 U-1 FSS: LAFAYETTE

FRANKLIN 3 S
740 H24 (1) *L4 S5 F3 FSS: INDIANAPOLIS

AIRPORT DIRECTORY

EMAN FLD See SEYMOUR

NCH LICK MUNI 2 S
792 H44 (1) F4
Remarks: Ditches both sides of rnwy. FEE.

E See DECATUR

VESTON 3 NW
788 H16 (2)

RETT
ENK 3 SW
360 26 (1) S5 F2

OOD See MONON

MUNI *IFR* 4 NW
591 H46 (2) BL4 S5 F4 FSS: JOLIET (DL)
VFR ADV: CHICAGO ARTC APP CON Svc-120.2
Remarks: Ctc unicom for advisory when in this area & on gnd.

AIRE RANCH See RAMSEY

IEN MUNI *IFR* 4 SE
325 H32 (1) BL4 S5 F4 FSS: SOUTH BEND (DL)
Remarks: P-lines S, SW.

GER
COMBS Adj W
750 10 (1)
Remarks: P-line S.

ENCASTLE MUNI 2 E
322 30 (2) F2 U-1 FSS: TERRE HAUTE
Remarks: NE/SW strip ruf, rolling.

ENFIELD
PE FLD 2 NE
195 25 (2) *L4 S1 F2 FSS: INDIANAPOLIS
Remarks: P-line S.

ENSBURG 2 SW
915 20 (2) F2

ENTOWN
WARD 3 S
354 22 (1) F2

ENWOOD
WAY 1 NE
720 27 (3) BL4 S3 F2 U-1
FSS: INDIANAPOLIS (LC CH-4-9561)
Remarks: 1700' asphalt strip, sides and ends soft.

FITH 1 SE
940 H23 (1) L2, 4 S1 F4 U-1 FSS: JOLIET

SOM MUNI See BEDFORD

ESTOWN
RFECT CIRCLE 1 S
000 40 (1) L4 U-1

HALSMER See LAFAYETTE

HAP'S See JEFFERSONVILLE

HARTFORD CITY
HOOVER'S 2 SW
905 19 (2) S3 F2 FSS: FORT WAYNE

INMAN 2 N
920 18 (2) BL4 S3 F2 FSS: FORT WAYNE
Remarks: Lgts oper until 2 AM.

HELMSBURG
KENSTIN MANOR Adj SE
658 28 (1)
Remarks: P-lines both apchs. Rnwy 25 threshold displaced 350', rnwy 7 displaced 450'.

HIGHLAND See PERRYSVILLE

HOBART
SKY RANCH 2 NW
644 25 (2) S5 F4 FSS: JOLIET
Remarks: Soft when wet.

HOOVER'S See HARTFORD CITY

HOWARD CO See GREENTOWN

HULMAN FLD See TERRE HAUTE, HULMAN FLD in Section IV-A

HUNTINGBURG 3 S
530 H29 (1) BL4 S5 F4 FSS: TERRE HAUTE

HUNTINGTON
HUNTINGTON MUNI 2 SE
810 21 (2) *L S1 F2 FSS: FORT WAYNE
Remarks: P-lines N, W, and SW.

SCOTT RANCH 5 SE
716 32 (2) BL4 F4 U-1 FSS: FORT WAYNE
Remarks: P-line NE, NW. Bcn, rnwy lgts thru unicom.

INDIANAPOLIS
INDIANAPOLIS MUNI-WEIR COOK See Section IV-A

SHANK 5 NW
740 28 (4) S5 F4 FSS: INDIANAPOLIS (LC CH-4-9561)
Remarks: P-line E. All way fld.

SKY HARBOR 6 E
870 H35 (1) L4 S5 F4 U-1
FSS: INDIANAPOLIS (LC CH-4-9561)
Remarks: DC-3 and heavier acft prohibited. Use rnwys and txwys only.

SPEEDWAY 4 W
870 26 (2) S5 F4 U-1
FSS: INDIANAPOLIS (LC CH-4-9561)
Remarks: P-line W.

INDIANAPOLIS METROPOLITAN See NOBLESVILLE

INMAN See HARTFORD CITY

AIRPORT DIRECTORY

JASPER COUNTY See **RENSSELAER**

JASONVILLE
SHAKAMAK 1 NE
613 23 (2) F2 FSS: TERRE HAUTE
Remarks: Fence both ends. TV ant S.

JEFFERSONVILLE
HAP'S 3 N
464 H22 (1) S5 F4 U-1

KELLYS AIRFIELD See **MOORESVILLE**

KENDALLVILLE MUNI 2 N
1000 H22 (1) BL4 F4 U-1 FSS: FORT WAYNE
Remarks: P-line SW.

KENSTIN MANOR See **HELMSBURG**

KNOX
STARKE COUNTY 1 S
714 H26 (2) L4 S5 F5 U-1 FSS: SOUTH BEND
Remarks: P-lines NE, N. Rdo twr N. Rnwy lgts on prior request after 12 PM. N/S rnwy emgcy only.

KOKOMO
KOKOMO MUNI *IFR* 4 NE
827 H40 (2) BL4 S5 F4 U-1 FSS: INDIANAPOLIS
VFR ADV: BUNKER HILL APP CON 120.0; DEP CON 120.0

RUZICKA 3 SW
870 24 (1) S5 F2 FSS: INDIANAPOLIS
Remarks: P-line N.

LAFAYETTE
ARETZ 3 NE
614 30 (2) L4 S5 F4 FSS: LAFAYETTE (LC RI-3-1802)
Remarks: P-lines NW, SE. Use strips. Lgts thru Lafayette rdo.

HALSMER 3 SE
664 H38 (1) *L4 S5 F4 U-1
FSS: LAFAYETTE (LC RI-3-1802)
Remarks: P-line SW. Use strips. Gross wt. 50,000 lbs.

PURDUE UNIVERSITY *IFR* 1 SW
605 H54 (2) BL4 S3 F4 FSS: LAFAYETTE on fld
Remarks: Rnwy 5-23 clsd to acft over 26,500 lbs gross wt or larger. Use rnwys & txwys only. FEE for acft 12,500 lbs and over. Rnwy lgts thru Lafayette rdo.

WELBORN 2 N
520 21 (1) S5 F2 FSS: LAFAYETTE (LC RI-3-1802)

LAKE VILLAGE 1 NW
644 26 (2) L4 S5 F3 FSS: JOLIET

LA PORTE MUNI 2 SW
803 H25 (1) BL4 S5 F4 U-1 FSS: SOUTH BEND
Remarks: P-lines SW, SE, NW.

LEBANON
COMBS 3 SE
959 24 (1) F2
Remarks: Displaced threshold 230' rnwy 36.

LINTON 3 E
524 26 (1) S1 F2 FSS: TERRE HAUT
Remarks: P-line N.

LOGANSPORT MUNI 2 S
736 H23 (1) BL4 F4 U-1 FSS: LAFAYETT

LOWELL
BAILEY 4 SW
697 20 (1) S1

MADISON MUNI 5 NW
814 H32 (1) BL4 F4

MARION MUNI *IFR* 3 SW
858 H42 (2) BL4 S3 F4 FSS: INDIANAPOL S
Remarks: BUNKER HILL APP CON 120.0; DEP CON 120.0

McCOMBS See **GRANGER**

MENTONE 2 SW
860 26 (1) S3 F4 FSS: SOUTH BE

METTEL See **CONNERSVILLE**

MICHIGAN CITY
MICHIGAN CITY 4 E
650 H30 (1) L4 S5 F4 U-1 FSS: SOUTH BE
Remarks: Twr N. P-lines N, SE. Lgts oper on prior req 10 PM.

MICHIGAN CITY MUNI 2 S
668 H24 (1) BL4 S4 F4 U-1 FSS: SOUTH BE

VERDOS 4 S
680 25 (2) FSS: SOUTH BE
Remarks: P-lines N, NE, S.

MIDWAY See **ELKHART**

MILLER See **BLUFFTON**

MISHAWAKA
SPORTSMAN 3 NE
760 19 (2) S5 F4 U-1
FSS: SOUTH BEND (LC-CE 3-
Remarks: P-lines, S, SW, W.

MONON
GARWOOD 1 NE
680 28 (1) F4 FSS: LAFAYE
Remarks: Displaced threshold 300' rnwy 36.

MONROE CO. See **BLOOMINGTON**

MONTICELLO
WHITE COUNTY 2 S
674 26 (1) S1 F3 FSS: LAFAYE
Remarks: P-line SW.

MOORESVILLE
KELLYS AIRFIELD 2 S
705 20 (2) L4 S5 F2 FSS: INDIANAP
Remarks: Rnwy lgts on prior request after 10 PM.

AIRPORT DIRECTORY

VERNON MUNI Adj SE
390 25 (1) L4 S5 F4 U-1 FSS: TERRE HAUTE
Remarks: P-line N. Strip lgts N. S rnwy oper dusk-down.

ICIE
ELAWARE CO See Section IV

EESE 3 SE
991 20 (3) *L4 S5 F4 U-1 FSS: INDIANAPOLIS

'CASTLE
EW CASTLE MUNI 2 NE
1080 29 (1) L4 S3 F4 FSS: INDIANAPOLIS
Remarks: Rgt tfc W.

EW CASTLE-WESTERN 2 NW
1078 26 (3) S5 F4 U-1 FSS: INDIANAPOLIS
Remarks: P-lines NE, N.

Y CASTLE 3 SE
1088 29 (2) L4 S5 F4 U-1 FSS: INDIANAPOLIS

LESVILLE
DIANAPOLIS METROPOLITAN 6 SW
810 H30 (1) F4 U-1
Remarks: P-line NW.

ANCHESTER
RVIA 3 SE
827 26 (1) S5 F2
Remarks: 80/87 oct avbl emgcy only.

ERNON
. ANNE 2 NE
750 H35 (1) L4 S1 F4
Remarks: Lgts dusk-12 PM. SW 1000' NE. SW rnwy perm ly clsd.

AL See VINCENNES

ENAS 1 SE
940 H23 (1) *L4 F4

IODONTIC See WESTVILLE

_I
OLI 1 N
925 H25 (1) L4 S1 F4

ECT CIRCLE See HAGESTOWN

RYSVILLE
GHLAND 2 NW
925 22 (2) L4 S5 F2 FSS: LAFAYETTE
Remarks: P-line E.

J
RU 3 SW
35 28 (1) F4 FSS: LAFAYETTE
Remarks: P-line S. E/W rnwy perm clsd.

OD TOWER See PLYMOUTH

PLYMOUTH
PI-ROD TOWER 1 NW
796 28 (1) F2, 4
Remarks: P-lines, E, W.

POPE FLD See GREENFIELD

PORTER COUNTY See VALPARAISO

PORTLAND
STEED FLD 1 NW
926 26 (2) *L4 S5 F4 FSS: FORT WAYNE
Remarks: Use strips.

PORT O'WOODS See BLOOMINGDALE

PURDUE UNIVERSITY See LAFAYETTE

RAMSEY
GLEN AIRE RANCH 2 SW
660 24 (2) F4
Remarks: P-lines N & S.

RANDOLPH CO. See WINCHESTER

REESE See MUNCIE
RENSSELAER
JASPER COUNTY 1 NW
676 25 (2) BL4 S3 F4 FSS: LAFAYETTE

RICHMOND
EAST RICHMOND 3 E
1065 25 (3) L4 S5 F4 U-1
Remarks: 200' overrun NE end.

RICHMOND MUNI *IFR* 5 SE
1141 H55 (3) BL4 S5 F4 U-1
VFR ADV: FOR APP CON, DEP CON See DAYTON/COX DAYTON MUNI, OHIO in Section IV-A

RISING SUN 1 N
530 26 (3) S1 F3

ROCHESTER MUNI 1 E
787 27 (4) S5 F4 U-1 FSS: FORT WAYNE
Remarks: P-lines N, S, NE, NW, SE. N strip tk-off only.

ROSELAWN
ZORO AIRPARK 1 W
678 22 (1)

RUZICKA See KOKOMO

ST ANNE See N VERNON

ST JOSEPH See SOUTH BEND, ST JOSEPH CO in Section IV-A

SCOTT FLD See ARGOS

SCOTT RANCH See HUNTINGTON

SERVIA See N. MANCHESTER

AIRPORT DIRECTORY

SEYMOUR
FREEMAN FLD 2 SW
575 H55 (4) BL4 S3 F4 U-1

SHAKAMAK See JASONVILLE

SHANK See INDIANAPOLIS

SHELBYVILLE MEML 4 NW
804 34 (2) *L4 F4 FSS: INDIANAPOLIS
Remarks: P-lines N, E.

SHENK See GARRETT

SHERIDAN
BLACK HAWK 5 N
933 20 (2) *L4 S5 F2 FSS: INDIANAPOLIS
Remarks: P-lines N, NE.

SHERIDAN 3 N
940 39 (3) *L4 S5 F4 FSS: INDIANAPOLIS
Remarks: P-line SW.

SHIPSHEWANA
WOLFE FLD 1 NW
896 24 (1) F2
Remarks: P-line W.

SKY CASTLE See NEW CASTLE

SKY HARBOR See INDIANAPOLIS

SKY KING See TERRE HAUTE

SKYLANE See EVANSVILLE

SKY RANCH See HOBART

SKYWAY See GREENWOOD

SMITH FLD See FORT WAYNE

SOUTH BEND
CHAIN-O-LAKES 5 W
765 21 (2) S3 F4 FSS: SOUTH BEND (LC CE 3-4433)
Remarks: P-lines NW, SE.

ST JOSEPH See Section IV

SPEEDWAY See INDIANAPOLIS

SPORTSMAN See MISHAWAKA

SPRINGPORT
CRANDALL FLD Adj E
1040 26 (1) S1 F2

STARKE COUNTY See KNOX

STEED FLD See PORTLAND

SYRACUSE
WAWASEE 3 E
880 22 (1) S3 F2
Remarks: P-line E.

TAYLOR See WOODBURN

TERRE HAUTE
HULMAN FLD See Section IV-A

SKY KING 5 N
496 H33 (1) L4 S5 F4 U-1
FSS: TERRE HAUTE (LC C-3
Remarks: Twr SW. P-line W.

TERRY FLD See ZIONSVILLE

TRIANGLE See DYER

TURNER FLIGHT STRIP See WAVELAND

VALPARAISO
PORTER COUNTY 3 SE
761 H30 (2) BL4 S5 F4 U-1 FSS: SOUTH BEND
Remarks: Soft shoulders.

WYCKOFF 5 NE
760 18 (1) S3 F2 FSS: SOUTH BE
Remarks: P-line N.

VERDOS See MICHIGAN CITY

VINCENNES
O'NEAL 1 W
414 32 (4) S5 F4 FSS: TERRE HA
Remarks: P-line NE.
WABASH MUNI 2 SE
794 H34 (2) BL4 S5 F4 U-1 FSS: FORT WA

WARSAW MUNI 2 N
840 H36 (1) BL4 S5 F4 U-1 FSS: FORT WA
Remarks: RR apch rnwy 9. P-line apch rnwy 5.

WASHINGTON
DAVIESS 3 N
450 29 (2) S3 F2 FSS: TERRE HA
Remarks: P-lines W, NE. Use strips.

WAVELAND
TURNER FLIGHT STRIP 3 NW
780 30 (1)

WAWASEE See SYRACUSE

WELBORN See LAFAYETTE

WESTFIELD 1 NW
920 20 (2) S1 F2 U-1 FSS: INDIANA

W. LAFAYETTE
PURDUE UNIVERSITY 1 SW
FSS: LAFAYETTE
Remarks: See: Lafayette, Purdue University.

WESTVILLE
ORTHODONTIC 3 N
800 25 (1)

WHITE COUNTY See MONTICELLO

AIRPORT DIRECTORY

CHESTER
ANDOLPH CO 3 E
1109 H26 (1) L4 F4 U-1

)FALL 2 NW
365 25 (1) F2
Remarks: Unattended.

FE FLD See SHIPSHEWANA

DBURN
AYLOR 1 SW
758 26 (3) S3 FSS: FORT WAYNE
Remarks: P-line N.

KOFF See VALPARISO

ISVILLE
.RRY FLD 5 N
320 H35 (1) S1 F4 FSS: INDIANAPOLIS

) AIRPARK See ROSELAWN

IOWA

)NA MUNI 1 NW
219 H22 (1) BL4 S5 F4 U-1 FSS: MASON CITY
Remarks: 3300' strip avbl. P-line NE.

SON MUNI Adj N
054 15 (2) L4 F2 FSS: WATERLOO

MUNI 2 S
32 H35 (1) BL4 S5 F4 U-1 FSS: DES MOINES
Remarks: 3920 strip avbl.

:RSON See MANSON

A
ESSLER 7 SE
250 16 (1) S1 F2

NY
(AUER FLD Adj W
95 27 (1) L4 S4 F4 FSS: DES MOINES (LC 285-5691)

TRONG 3 NW
250 19 (1) F2 FSS: MASON CITY

UR N NEU See CARROLL

NTIC MUNI 2 W
158 H27 (1) BL4 S5 F4 U-1 FSS: OMAHA
emarks: P-line N 3300' strip avbl.

BON MUNI 1 SE
300 25 (1) L4 S3 F4 U-1 FSS: OMAHA

ROFT 1 W
200 26 (1) F2
emarks: P-line N

BARTLETT
LORIMOR 1 E
960 25 (1) F2 FSS: OMAHA
Remarks: P-line S.

BAXTER Adj SE
1000 22 (1) S1 F2
Remarks: P-line N & S. Land at own risk.

BEAMAN
THURMAN 2 SE
1000 22 (1) F2 FSS: WATERLOO

BEDFORD MUNI 2 S
1090 24 (1) L4 F2 FSS: ST JOSEPH
Remarks: P-line S. Unattended.

BELLE PLAINE
FRONING FLD 2 NW
800 24 (1) L4 S1 F4 FSS: CEDAR RAPIDS
Remarks: Unattended.

BLOOMFIELD 1 S
850 22 (1) L4 F2 FSS: OTTUMWA

BONAPARTE
CAMPBELL FLD 5 N
700 25 (2) S3 F2
Remarks: P-line N.

BOONE MUNI 2 SE
1143 H30 (1) BL4 S5 F4 U-1 FSS: DES MOINES
Remarks: Rgt tfc NE, NW. P-line NE.

BROOKLYN
VAL-AIR HOLIDAY LAKE 2 NE
900 26 (1) S1 F4 U-1 FSS: CEDAR RAPIDS

BUFFALO CENTER 3 S
1100 26 (1) F2

BURLINGTON MUNI *IFR* 2 SW
697 H53 (2) BL4 S5 F4 FSS: BURLINGTON (on Fld)
Remarks: Rgt tfc rnwys 12, 18.

BURRELL FLD See PLEASANTVILLE

CALLENDER
PETERSON FLYING SERVICE 1 SW
1145 18 (1) S1 F2 FSS: MASON CITY

CAMPBELL FLD See BONAPARTE

CARROLL
ARTHUR N NEU 4 SE
1196 H28 (1) BL4 S3 F4 U-1 FSS: DES MOINES
Remarks: NE/SW strip soft.

CARSON See TROY MILLS

CASTANA
MAYNARD 2 E
1100 17 (1) S3 F2

AIRPORT DIRECTORY

CEDAR FALLS
LEIBUNDGUTH 4 SW
970 30 (1) F3 FSS: WATERLOO
Remarks: P-line S.

McCARTER 1 E
858 33 (2) F2 FSS: WATERLOO

CEDAR RAPIDS MUNI See Section IV-A

CENTERVILLE MUNI 3 SW
1017 26 (2) BL4 S1 F4 U-1 FSS: OTTUMWA

CENTRAL CITY
WASSMER 3 SW
960 18 (1) F2 FSS: CEDAR RAPIDS

CHARITON MUNI 2 W
1130 24 (1) L4 F4 FSS: DES MOINES
Remarks: P-line S.

CHARLES CITY MUNI 3 E
1130 H26 (1) BL4 S5 F4 U-1 FSS: MASON CITY
Remarks: P-line S.

CHEROKEE MUNI 2 S
1212 H17 (3) L4 S2 F4 U-1 FSS: SIOUX CITY
Remarks: P-line SE, SW. Rgt tfc N, NE & SE. 3300' strip avbl.

CLARENDA
CLARINDA MUNI 1 SE
992 H21 (2) BL4 S5 F4 U-1 FSS: OMAHA
Remarks: Rgt tfc SW, SE; ditches S, NNE; 2900' strip avbl.

SCHENCK 1 SE
992 28 (1) *L1 S3 F2 FSS: OMAHA
Remarks: Minor eng rprs only. Rgt tfc N.

CLARION MUNI 1 NW
1162 27 (2) BL4 S5 F4 FSS: MASON CITY
Remarks: P-line NW.

CLERMONT
VALLEY 1 S
800 26 (1) L4 S1 F2 FSS: LA CROSSE

CLINTON MUNI *IFR* 6 SW
701 H37 (1) BL4 S5 F4 U-1 VFR ADV: For APP CON see MOLINE/QUAD CITY ILLINOIS in Section IV-A
FSS: BURLINGTON
Remarks: 3900' strip avbl.

COLUMBUS JUNCTION 3 N
580 26 (1) F2 FSS: CEDAR RAPIDS
Remarks: S end rolling.

CONRAD
TOMCO FLD 3 NW
1050 23 (1) FSS: WATERLOO
Remarks: Unattended. P-line N. Not maint'd winter months.

CORNING MUNI 1 W
1250 24 (1) L4 S5 F4 FSS: OMAHA
Remarks: Rgt tfc S. Pole S end.

COUNCIL BLUFFS MUNI 3 SE
974 37 (4) L4 S5 F4 U-1 FSS: OMAHA (LC 341-617
Remarks: P-line SE, NE.

CRESCO MUNI 1 SW
1280 23 (1) L4 F2 FSS: ROCHESTE

CRESTON MUNI 2 S
1293 H23 (1) BL4 S5 F4 U-1 FSS: DES MOINE

DALLAS CENTER
HUSBAND 3 W
1015 23 (2) *L4 S3 F3 FSS: DES MOINE

DAVENPORT MUNI *IFR* 5 N
753 H48 (2) BL4 S5 F4
FSS: BURLINGTON (LC 752-47
VFR ADV: For APP CON, DEP CON See MOLINE/QUAD CITY ILLINOIS In Sec IV-A

DAVIS FLD See DUNKERTON

DECORAH MUNI 3 SE
1160 H26 (1) L4 S1 F4 FSS: LA CROS
Remarks: Arpt operates daylight hours only.

DENISON MUNI 2 SW
1275 H26 (1) BL4 S5 F4 FSS: SIOUX CI
Remarks: Shoulders soft.

DES MOINES
DES MOINES MUNI See Section IV-A

DODGE FLD 7 NW
835 28 (1) L4 S5 F4 U-1
FSS: DES MOINES (LC 285-56
Remarks: Lgts operg SS-2 AM.

NORTH FLD 4 N
810 24 (1) L4 S1 F2 U-1
FSS: DES MOINES (LC 285-56

DODGE FLD See DES MOINES

DRAKE See RADCLIFFE

DRESSLER See ANITA

DUBUQUE MUNI *IFR* 7 S
1075 H56 (2) BL4, 6, 11 S5 F4 U-1
FSS: CEDAR RAPI

DUNKERTON
DAVIS FLD 3 NW
1000 24 (2) F3 FSS: WATERL
Remarks: P-line S.

EAGLE GROVE MUNI 3 N
1131 26 (2) L4 F2 FSS: MASON CI

EHLEBRACHT FLD See RUDD

AIRPORT DIRECTORY

ORA MUNI 2 SW
990 30 (1) L4 S5 F4 FSS: WATERLOO
Remarks: P-Line S.

ADER MUNI 1 SE
915 20 (2) L4 S1 F2 FSS: LONE ROCK

ETSBURG MUNI Adj SW
1205 34 (3) L4 S1 F4 U-1 FSS: MASON CITY

X Adj W
990 23 (1) L4 F2 FSS: OMAHA
Remarks: Lgts dusk to 1AM, thereafter on req thru Omaha radio.

IERVILLE MUNI 4 E
267 H32 (1) BL4 S5 F4 U-1 FSS: MASON CITY

FIELD MEML 2 SE
30 27 (2) L4 S1 F2 FSS: OTTUMWA
Remarks: P-line NNW.

FAX
LTIS 3 SE
20 16 (1) FSS: CEDAR RAPIDS (LC 364-3041)
Remarks: P-line E.

IS See FAIRFAX

D
NRY 4 NE
110 16 (1) F2 FSS: MASON CITY

RS See WATERLOO

ST CITY MUNI 2 SE
209 20 (1) L4 F2 FSS: MASON CITY
emarks: Unattended.

DODGE MUNI *IFR* 3 N
60 H44 (1) BL 6 S5 F4 U-1 FSS: MASON CITY (DL)
emarks: Use rnwy.

MADISON MUNI 1 N
1 H30 (1) BL4 S5 F4 U-1 FSS: BURLINGTON
marks: 3200' strip avbl.

NG FLD See BELLE PLAINE

ER
S FLD 1 NW
30 23 (2) L4 S5 F4 U-1 FSS: MASON CITY

E
ENGA INDUSTRIES 1 NE
30 26 (2) F2

N 2 SE
25 26 (1)
marks: Closed to public.

IFIELD 2 N
54 24 (1) L4 S1 F2 FSS: DES MOINES
marks: P-line NW.

GREINER FLD See Keota

GRINNELL 4 E
1000 26 (1) F2 FSS: DES MOINES
Remarks: P-line N.

GRUNDY CENTER MUNI 3 W
1022 25 (1) L4 F2 FSS: WATERLOO

GUTHRIE CENTER MUNI Adj NW
1083 25 (2) L4 S1 F2 FSS: DES MOINES
Remarks: Rgt tfc land SW or SE.

GUTTENBERG MUNI 2 N
620 23 (1) L4 FSS: LONE ROCK
Remarks: P-line N. Lgts dusk-midnite.

HAMBURG
HOOVER 2 W
906 20 (1) FSS: OMAHA
Remarks: P-line N.

HAMPTON MUNI 2 NW
1150 24 (1) L4 F2 FSS: MASON CITY

HARLAN MUNI 4 SW
1204 27 (2) BL4 F4 U-1 FSS: OMAHA
Remarks: P-line S, SE. Bcn & rnwy lgts operg dusk-12PM

HARTLEY
LAMBERT FECHTER MUNI 1 SE
1490 26 (2) L4 F4
Remarks: P-line SE.

HAWARDEN MUNI Adj S
1174 23 (3) L4 F2

HENRY See FLOYD

HOOVER See HAMBURG

HUMBOLDT MUNI 1 NW
1095 29 (2) L4 S1 F4 U-1 FSS: MASON CITY
Remarks: Hi-voltage wires N, S ends rnwy.

HUSBAND See DALLAS CENTER

IDA GROVE MUNI 2 SE
1250 H26 (1) BL4 S3 F4 U-1 FSS: SIOUX CITY
Remarks: Unlgtd pole W.

IOWA CITY MUNI *IFR* 1 SW
661 H43 (3) BL4 S5 F4 U-1 FSS: CEDAR RAPIDS
VFR ADV: For APP CON, DEP CON see CEDAR RAPIDS/MUNI in Sec. IV-A

IOWA FALLS MUNI 4 S
1140 H20 (1) L4 S3 F4 U-1 FSS: MASON CITY
Remarks: 2800' strip avbl.

INDIANOLA
STONE FLD 4 NE
965 20 (2) F2

AIRPORT DIRECTORY

JEFFERSON MUNI 2 E
1041 H32 (1) L4 S5 F4 U-1 FSS: DES MOINES

"K" FLD See WAVERLY

KEOKUK MUNI *IFR* 4 NW
671 H38 (1) BL4 S5 F4 U-1 FSS: BURLINGTON

KEOTA
GREINER FLD 5 NE
850 22 (1) F4 FSS: CEDAR RAPIDS
Remarks: P-line S.

KIMBERLY See OAKLAND

KNOOP See MARBLE ROCK

KRUSES ARPK See WHAT CHEER

KNOX See SIDNEY

KNOXVILLE MUNI 1 S
930 25 (1) L4 S1 F2 FSS: DES MOINES
Remarks: P-line E.

LAMBERT FECHTER MUNI See HARTLEY

LA PORTE
NICHOLS 4 W
950 20 (1) F2 FSS: WATERLOO

LARSEN FLD See ORIENT

LARCHWOOD
ZANGGER 2 E
1470 H22 (1) L4 S5 F3 FSS: HURON

LAURENS-SKYWAYS Adj SW
1300 22 (1) FSS: MASON CITY

LEIBUNDGUTH See CEDAR FALLS

LeMARS 2 SW
1195 26 (2) L4 S5 F4 U-1 FSS: SIOUX CITY
Remarks: P-line SE. NW. SE rnwy perm'ly clsd.

LENOX 1 N
1200 26 (1) S3 F2 FSS: DES MOINES
Remarks: Bldgs N end.

LORIMOR See BARTLETT

LOWDEN ARPK Adj S
700 17 (1) *L S1 F2 FSS: CEDAR RAPIDS
Remarks: P-line ESE.

LUANA
SWENSON 3 NE
1050 23 (1)

MANCHESTER MUNI 2 W
1000 38 (1) F2 FSS: CEDAR RAPIDS

MANNING MUNI Adj SW
1321 24 (2) F2 FSS: OMA-
Remarks: Twr NE. P-lines S, SW.

MANSON
ANDERSON 1 NE
1235 26 (1) F2 FSS: MASON CI

MAPLETON MUNI Adj NW
1150 29 (2) L4 S5 F2 U-1 FSS: SIOUX CI
Remarks: P-line SE, dike NW.

MAQUOKETA-SWIFT 3 W
770 26 (2) L4 S1 F4 FSS: BURLINGT
Remarks: P-line N. Soft when wet.

MARBLE ROCK
KNOOP 4 NE
1100 30 (2) FSS: MASON CI
Remarks: TV ant S.

MARION
McBRIDE 3 NW
880 22 (1) F2 FSS: CEDAR RAPIDS (LC 364-3
Remarks: P-line NW.

MARSHALLTOWN MUNI 3 N
972 H39 (1) BL4 S5 F4 U-1 FSS: DES MOI

MASON CITY MUNI *IFR* 6 W
1216 H56 (2) BL4, 6, 11 S5 F4 U-1
FSS: MASON CITY (On F

MASSENA
SWAIN 5 S
1300 22 (1)

MAYLAND See TITONKA

MAYNARD See CASTANA

McBRIDE See MARION

McCARTER See CEDAR FALLS

MILLERSBURG
RIVER PORT 3 NE
740 19 (1) S3 F2 FSS: CEDAR RAP
Remarks: Fence each end.

MILROY See VINTON

MISSOURI VALLEY 1 S
1000 25 (1) L4 F2 FSS: OMA-
Remarks: Ditch S end. Lgts SS-12:00 PM.

MONTEZUMA
SIG FLD 3 E
953 20 (1) F3
Remarks: P-line N.

MONTICELLO MUNI 1 S
840 24 (1) L4 S1 F4 U-1 FSS: CEDAR RAP
Remarks: P-line S.

AIRPORT DIRECTORY

ORLAND
IESLER FLD Adj E
1150 25 (1) S5 F4

AYRPORT 2 SW
1001 20 (1) F2 FSS: DES MOINES

PLEASANT MUNI 2 SE
727 25 (3) L4 S1 F2 FSS: BURLINGTON
Remarks: Soft when wet.

VERNON
ONNE 3 N
850 20 (1) S3 F2
Remarks: Use at own risk.

CATINE MUNI 5 SW
546 H40 (2) BL4 S5 F4 FSS: BURLINGTON
Remarks: 4200' strip avbl.

LER FLD See MOORLAND

'ADA MUNI 1 SW
995 23 (2) S3 F2 FSS: DES MOINES

HAMPTON MUNI 2 NW
1180 28 (2) S1 F2 FSS: WATERLOO
Remarks: P-line E & S. Not maintd winter months.

TON MUNI *IFR* 1 SE
952 H24 (2) BL4 S5 F4 U-1 FSS: DES MOINES
Remarks: P-line SW. 2600' strip avbl.

IOLS See LA PORTE

A SPRINGS
OTTS FLD 3 W
1155 25 (2) *L F2 FSS: MASON CITY
Remarks: P-line E, S.

TH FLD See DES MOINES

THWOOD MUNI 1 E
1259 26 (1) F2 FSS: NORTHWOOD

_AND
ABERLY Adj NW
1085 18 (1) F2 FSS: OMAHA

WEIN MUNI 3 W
050 H26 (1) L4 S5 F4 U-1 FSS: WATERLOO
Remarks: P-line W. Not maintd winter months.

SOJI
E INN 1 NW
450 27 (1) L4 S3 F3
Remarks: Open May 1-Oct 15.

VA MUNI (PETERSON FLD) 1 SW
046 H23 (1) L4 S3 F2 FSS: SIOUX CITY

NT
RSEN FLD 5 W
325 18 (1) F2
Remarks: Unattended.

OSAGE MUNI Adj E
1150 48 (1) L4 S1 F2 U-1 FSS: MASON CITY
Remarks: P-line N. Rnwy soft in spots.

OSCEOLA MUNI 2 N
1125 24 (1) L4 S1 F4 U-1 FSS: DES MOINES
Remarks: P-line S. Use E or W side of strip when wet; portion of area outside of lgts unusable

OSKALOOSA MUNI 8 SE
842 H20 (2) L4 S5 F4 U-1 FSS: OTTUMWA
Remarks: 3600' strip avbl.

OTTUMWA MUNI *IFR* 6 NW
845 H52 (2) BL4 S5 F4 FSS: OTTUMWA (on Fld)
Remarks: Rnwy lgts on request after 11:00 PM.

PELLA-AIRWAYS INC 3 SE
877 24 (1) F3 FSS: OTTUMWA
Remarks: Clsd when wet

PERRY MUNI 3 SW
1014 23 (2) BL4 S5 F4 U-1 FSS: DES MOINES

PETERSON FLYING SERVICE See CALLENDER

PLEASANTVILLE
BURRELL FLD 3 NW
925 22 (1) F2

POCAHONTAS MUNI 1 NE
1216 25 (2) L4 FSS: MASON CITY
Remarks: P-line N.

PRAIRIE CITY-KROHN 2 NE
950 30 (2) S3 F2
Remarks: Cable line S.

RADCLIFFE
DRAKE 1 NE
1200 30 (1) *L4 S1 F4 U-1 FSS: MASON CITY
Remarks: 2500' of rnwy lgtd.

RAVENSBORG See TURIN

RED OAK MUNI 1 W
1044 28 (3) BL4 S5 F5 U-1 FSS: OMAHA
Remarks: Ngt serv on call.

RENWICK MUNI AIRSTRIP 1 SE
1110 21 (1) F2
Remarks: Unattended.

RIVER PORT See MILLERSBURG

ROCK RAPIDS MUNI 2 NW
1360 25 (1) L4
Remarks: P-line N, S.

ROCKWELL CITY MUNI Adj W
1234 22 (1) L4 F2 FSS: MASON CITY

AIRPORT DIRECTORY

RUDD
EHLEBRACHT FLD Adj SE
1150 23 (2) S1 F2 FSS: MASON CITY
Remarks: P-line W.

SAC CITY MUNI 3 SE
1250 H26 (2) BL4 S5 F3 U-1 FSS: MASON CITY

SATELLITE MILLS See WINFIELD

SCHENCK See CLARINDA

SCHWERIN See SUMNER

SCOTT MUN See WEST UNION

SEXAUER FLD See ANKENY

SHELDON MUNI 1 NE
1422 H28 (1) BL4 S5 F4 U-1 FSS: SIOUX CITY
Remarks: 3300' strip avbl.

SHENANDOAH MUNI 2 W
963 H30 (1) BL4 S5 F4 U-1 FSS: OMAHA
Remarks: 3700' strip avbl.

SIBLEY MUNI 2 S
1500 26 (2) L4 S1 F3 U-1 FSS: HURON
Remarks: P-line E.

SIDNEY
KNOX 3 SW
944 21 (2) F2 FSS: OMAHA
Remarks: 6' dike NW end, 4' fence SE end.

SIG FLD See MONTEZUMA

SIG-NOR See SIGOURNEY

SIGOURNEY
SIGOURNEY FLYING SERVICE 3 S
692 26 (2) *L S5 F2 FSS: OTTUMWA
Remarks: Soft when wet. Servicing prior req.

SIG-NOR 3 NE
820 21 (1) *L4 F2 FSS: OTTUMWA
Remarks: P-line parallel E side.

SIOUX CITY MUNI See Section IV-A

SPENCER MUNI 3 NW
1335 H27 (1) BL4 S5 F4 U-1 FSS: SIOUX CITY
Remarks: P-line NE. Soft at intxns. 3880' strip avbl.

SPOTTS FLD See NORA SPRINGS

STONE FLD See INDIANOLA

STORM LAKE MUNI 3 SW
1460 H30 (1) L4 S5 F4 U-1 FSS: MASON CITY

SUDENGA INDUSTRIES See GEORGE

SUMNER
SCHWERIN 3 SW
1050 16 (1) F2 FSS: WATERLOO
Remarks: Minor airframe repairs only. Land at own risk.

SWENSON See LUANA

TAMA 1 S
825 25 (1) *L2,4 S1 F2 FSS: CEDAR RAPIDS
Remarks: P-line S. Lgts phone HU4-2626 or HU4-3223.

THE INN See OKOBOJI

THURMAN See BEAMAN

TIPTON
TYRONNE 4 NE
835 18 (1) FSS: CEDAR RAPIDS
Remarks: Fence E.

TITONKA
MAYLAND 4 NE
1240 19 (1) F2 FSS: MASON CITY

TOLEDO MUNI 1 E
980 25 (1) *L3 FSS: CEDAR RAPIDS

TOMCO FLD See CONRAD

TONNE See MT VERNON

TRAER MUNI 1 NE
892 24 (1) L4 F4 FSS: WATERLOO
Remarks: Rgt tfc N.

TROY MILLS
CARSON 2 NW
870 17 (1) S3 F2 FSS: CEDAR RAPIDS

TURIN
RAVNSBORG Adj W
1035 12 (1) F2
Remarks: P-line S.

TYRONNE See TIPTON

UTE 1 SE
1150 25 (1) F3

VAL-AIR HOLIDAY LAKE See BROOKLYN

VALLEY See CLERMONT

VINTON
MILROY 1 NW
800 19 (1) F2 FSS: CEDAR RAPIDS
REMARKS: P-line NW.

VETERANS MEML ARPK/MUNI 4 N
845 H26 (1) S5 F2, 4
Remarks: Attended days.

WALL LAKE MUNI Adj S
1223 32 (1) L4 S1 FSS: MASON CITY

AIRPORT DIRECTORY

SHINGTON MUNI 1 SE
769 26 (2) L4 S1 FSS: OTTUMWA
Remarks: P-line E.

SSMER See CENTRAL CITY

TERLOO
FLYERS 6 SE
850 20 (2) *L4 S3 S4 FSS: WATERLOO
Remarks: P-line S.

ATERLOO MUNI See Section IV-A

JKON MUNI Adj NE
1280 H26 (1) L4 F2 FSS: LA CROSSE
Remarks: Unattended. Rgt tfc W.

VERLY
K" FLD 5 E
1021 26 (1) F2 FSS: WATERLOO
Remarks: P-lines N, S.

3STER CITY MUNI 3 SW
1100 H24 (1) BL4 S3 F5 U-1 FSS: MASON CITY
Remarks: P-line N. Lndg S past hangar on N end N S rnwy, wind turbulence W side of rnwy. 3100' strip avbl.

LEY 1 E
1250 30 (1) F2
Remarks: P-lines N, S.

T UNION
COTT MUNI 1 NE
1240 26 (1) L4 F4

T CHEER
RUSES ARPK 4 NW
800 22 (2) S1 F2 FSS: OTTUMWA
Remarks: P-line N & E.

CS FLD See GARNER

DFIELD
NFIELD 3 E
700 13 (1) F2
Remarks: P-line E. Tie downs avbl.

TELLITE MILLS 1 S
710 20 (1)

DBINE MUNI 1 E
1080 22 (1) F2
Remarks: P-line S.

GGER See LARCHWOOD

KANSAS

ENE MUNI 1 SW
1148 H30 (1) BL 4 S1 F4 FSS: SALINA
Remarks: P-line SE; ruf, soft-wet.

IGHT AIRPARK 1 S
150 27 (1) L1 S5 F4 FSS: SALINA

ALDEN
SLEEPER 1 SW
1690 26 (1)

ALLEN AIRPARK See TOPEKA

AMELIA EARHART See ATCHISON

ANDERSON FLD See SMOLAN

ANTHONY MUNI 2 NW
1340 45 (2) BL4 F4 FSS: WICHITA
Remarks: P-lines ESE, S, N.

ARGONIA
TRACY 2 S
1260 25 (1) F2
Remarks: P-line N.

ARKANSAS CITY 3 S
1170 20 (1) *L4 S3 F2 FSS: PONCA CITY
Remarks: P-line N.

STROTHER AUX NO 1 7 NE
1145 30 (1) FSS: PONCA CITY

STROTHER AUX NO 2 6 W
1237 H40 (2) FSS: PONCA CITY
Remarks: Ruf.

ASHLAND MUNI 1 S
1940 32 (2) BL2, 4 S3 F4 U-1 FSS: DODGE CITY
Remarks: P-line N.E.

ATCHISON
AMELIA EARHART 3 W
1070 H30 (1) L4 S5 F4 FSS: ST JOSEPH

ATWOOD MUNI 2 N
2960 26 (4) *L4 S5 F2 FSS: GOODLAND

AUGUSTA MUNI 1 NE
1280 26 (2) L4 F3 FSS: WICHITA
Remarks: P-line SW. Lgts oper sunset to 2200

BALDWIN
VINLAND VALLEY 3 N
970 18 (2) S5

BASORE FLD See BENTLEY

BEAUMONT-HOTEL Adj E
1617 18 (1)
Remarks: P-line N.S.

BEECH See WICHITA, BEECH in Section IV-A

BELLEVILLE 2 SW
1520 24 (2) F4 FSS: SALINA
Remarks: P-line NE.

BELOIT MUNI 1 NW
1416 33 (3) L4 S5 F4 U-1 FSS: SALINA
Remarks: P-line SW.

AIRPORT DIRECTORY

BEMIS See PLAINVILLE

BENTLEY
BASORE FLD 2 SW
1380 26 (1) S1 U-1 FSS: WICHITA

BENTON
NELSON FLD Adj SW
1365 H27 (1) *L4 F4 FSS: WICHITA

BETZER See COLDWATER

BIRD CITY-COMMUNITY Adj S
3470 24 (2) BL4 S3 F4 FSS: GOODLAND
Remarks: P-line & bldg N.W.

BLOSSER MUNI See CONCORDIA

BLUE RIVER HILLS See MANHATTAN

BONNER SPRINGS
KANSAS CITY SUBURBAN ARPK 3 SW
875 32 (1) L4 S3 F4 U-1 FSS: KANSAS CITY
Remarks: P-line S, SE. Rnwy lgts first 2800' N/S rnwy.

BREWSTER
HUTTON 1 SE
3420 35 (3) S5 F3 FSS: GOODLAND
Remarks: P-line SW; low area S center of fld unusable.

BUCKLIN Adj SW
2450 26 (1) F2 FSS: DODGE CITY
Remarks: P-line N.

BUEHLER See SCOTT CITY

BURDETT Adj SW
2140 27 (4) S3 F3 U-1 FSS: DODGE CITY
Remarks: P-line E. Fence S, NNW, SSE, SE.

CESSNA AIRCRAFT FLD See WICHITA

CHANUTE
MARTIN JOHNSON *IFR* 2 SW
1001 H42 (1) BL2, 3 S5 F4 FSS: CHANUTE on Fld
Remarks: P-line S, NW.

CHASE COUNTY See COTTONWOOD FALLS

CIMARRON MUNI 2 N
2730 27 (3) F4 FSS: DODGE CITY

CLAY CENTER
CLAY CENTER MUNI 2 W
1206 H21 (1) L4 S5 F4 FSS: MANHATTAN
Remarks: P-line S, SE & NW. 2500' strip avbl.

WOOD ARPK 3 N
1275 15 (3) S5 F2 FSS: MANHATTAN

COFFEYVILLE
McGUGIN 4 NE
759 H59 (1) BL4 S5 F4 U-1 FSS: CHANUTE
Remarks: Rnwy 3-21 closed. Use 17-35 only.

COLBY MUNI 2 N
3176 H26 (1) L4 S5 F4 U-1 FSS: GOODLAND
Remarks: 3200' strip avail.

COLDWATER
BETZER 3 NW
2100 26 (1) F2 FSS: DODGE CITY

STARK 1 NE
2100 27 (2) S1 F2 FSS: DODGE CITY
Remarks: P-lines N, S & NE.

CONCORDIA
BLOSSER MUNI 2 S
1474 36 (2) L4 S1 F4 U-1 FSS: SALINA

COOK AIRFIELD INC See DERBY

COTTONWOOD FALLS
CHASE CO Adj SW
1264 26 (1) L4 S1 F2 FSS: EMPORIA
Remarks: Fence N, S.

COUNCIL GROVE 3 NW
1380 20 (2) FSS: MANHATTAN

CROSS See LEWIS

DAY See WELLINGTON

DEMPSAY FARM See RANTOUL

DERBY
COOK AIRFIELD INC 6 E
1345 H25 (1) L4 S5 F4 U-1 FSS: WICHITA
Remarks: P-lines S. NE, SE

HAMILTON FLD 1 E
1320 20 (1) S5 FSS: WICHITA
Remarks: P-line NW. No storage

DIENST RANCH See LAKIN

DIGHTON 1 NW
2785 24 (3) F4 FSS: GARDEN CITY

DIKEMAN See SYRACUSE

DODGE CITY
DODGE CITY MUNI *IFR* 3 E
2594 H46 (2) BL4 S5 F4 U-1 FSS: DODGE CITY
Remarks: Wea bureau bldg wind most erected btn rnwys 2-20 and 14-32 N of int 500' from centerline.

WILROADS GARDENS 5 SE
2440 24 (1) S5 FSS: DODGE CITY (LC HU 3-344)
Remarks: Soft when wet

DOWNS Adj SW
1500 21 (1) S1 FSS: RUSSELL
Remarks: P-line N.

AIRPORT DIRECTORY

IA MUNI 4 N
920 H40 (1) FSS: CHANUTE
Remarks: Hazardous

DORADO
L DORADO MUNI 3 NE
1380 430 (1) L4 S5 F4 U-1 FSS: WICHITA
Remarks: Ruf, soft when wet.

ATTY FLD 3 SE
1385 15 (1) FSS: WICHITA

COUNTY See MOLINE

HART MUNI 1 SE
3640 H26 (1) *BL4 S1 F2 U-1 FSS: GARDEN CITY
Remarks: 2800' strip avbl. Fuel on call.

INWOOD MUNI 1 NW
1797 26 (2) FSS: RUSSELL
Remarks: Oil well 58' E, N/S strip; P-line N; use rnwys.
Avoid arpt during wet wea.

JS MUNI Adj S
2204 26 (2) FSS: RUSSELL

SWORTH MUNI 1 N
1611 28 (1) FSS: RUSSELL
Remarks: P-line NW; rdo ent S.

ORIA MUNI *IFR* 4 S
1204 H38 (1) BL4 S5 F4 U-1 FSS: EMPORIA on Fld
Remarks: N/S strip 4200'; use strips-dry; paved rnwy-wet.

ERPRISE 1 S
1164 20 (1) *L4 F2
Remarks: P-line N. Soft-wet.

EKA MUNI 1 N
1206 H26 (1) F4 FSS: WICHITA

ERIMENT STATION See GARDEN CITY

FAX MUNI See KANSAS CITY, FAIRFAX MUNI in Section IV-A

L RIVER AIRSTRIP 4 NW
1035 20 (1) FSS: CHANUTE
Remarks: P-line SW.

OLD FLD See LEWIS

HAM See PRATT

EAVENWORTH
ERMAN AAF *IFR* 1 NE
770 H59 (2) S5 F4 VFR ADV: For APP CON, DEP CON See KANSAS CITY/MUNI, MISSOURI in Section IV-A
Remarks: Open to civil use. Civil ramp SSW side. 15' dike apch end rnwy 15.

T SCOTT MUNI 5 SW
915 H34 (1) BL4 S1 F4 U-1 FSS: CHANUTE

FOSTER FLD See REXFORD

FREDONIA MUNI 3 NW
880 26 (2) FSS: CHANUTE

GALLOWAY See WAKEENEY

GARDEN CITY
EXPERIMENT STATION 3 NE
2885 28 (3) FSS: GARDEN CITY
Remarks: Tower SE.

GARDEN CITY MUNI 7 SE
2895 H65 (4) BL4 S5 F4 U-1
FSS: GARDEN CITY on Fld
Remarks: Only rnwy 17-35 usable nghts.

GARDNER MUNI 1 W
1040 36 (2) S1 F2 U-1 FSS: KANSAS CITY
Remarks: P-line N.

GARNETT MUNI 1 E
995 28 (3) S1 F3 FSS: CHANUTE
Remarks: Ruf P-line NW.

GENESEO
KRATZER 3 NW
1772 28 (1)

GILLS See SHIELDS

GIRARD
HARRPORT 2 SE
970 17 (1)

GOODLAND MUNI *IFR* 2 N
3653 H44 (1) BL4 S5 F4 FSS: GOODLAND on Fld

GREAT BEND MUNI 4 SW
1890 H80 (3) BL4 S5 F4 U-1 FSS: RUSSELL
Remarks: Ngt opern N/S rnwy only.

GREENSBURG MUNI 1 E
2230 28 (3) L4 S1 F2 FSS: DODGE CITY
Remarks: P-line N, NE.

HAMILTON FLD See DERBY

HARRPORT See GIRARD

HARPER MUNI Adj SW
1429 22 (3) L4 F2 FSS: WICHITA
Remarks: P-line N; ditches end-strip; use strips

HARPERS FIELD See HUTCHINSON

HAVEN Adj NW
1485 22 (1) F4
Remarks: P-Line N.

HAYS MUN 3 SE
1998 H40 (1) BL4 S5 F4 U-1 FSS: RUSSELL
Remarks: 261' displaced threshold N end rnwy 16.

AIRPORT DIRECTORY

HAYES PORT See ZENITH

HERINGTON MUNI 7 NE
1485 H67 (1) S1 F2 FSS: MANHATTAN

HIAWATHA MUNI 2 NE
1130 23 (2) *L4 S4 F2 FSS: TOPEKA
Remarks: Rough.

HILL CITY MUNI 1 NE
2200 28 (3) BL4 S5 F4 FSS: HILL CITY on Fld
Remarks: Use strips

HILLSBORO MUNI 1 SW
1434 24 (1) S1
Remarks: When wet. Unattended

HOLYROOD MUNI Adj SE
1805 17 (1) FSS: RUSSELL
Remarks: P-line N.

HOOVER See LACROSSE

HORTON MEM'L 1 NW
1134 22 (2) L4 S3 F2 FSS: TOPEKA
Remarks: Fence N.

HOXIE MUNI 1 N
2665 28 (3) FSS: HILL CITY
Remarks: P-lines NW, SW.

HUGOTON MUNI 1 SW
3131 H23 (1) L4 F3 FSS: GARDEN CITY

HUGOTON STATION See ULYSSES

HUTCHINSON
HARPERS FLD 3 SE
1515 25 (1) FSS: WICHITA

HUTCHINSON MUNI See Section IV-A

HUTTON See BREWSTER

INDEPENDENCE MUNI 5 SW
820 H55 (3) BL4 S3 F4 U-1 FSS: CHANUTE

INGALLS MUNI 6 NW
2814 H30 (1) FSS: GARDEN CITY

IOLA
IOLA MUNI 3 S
1020 H30 (1) L4 S5 F4 U-1 FSS: CHANUTE

WOMACK 1 N
1005 12 (1) FSS: CHANUTE
Remarks: Surnd by fences

JACOBSON See STILWELL

JETMORE MUNI 6 S
2465 H44 (1) FSS: DODGE CITY

JOHNSON
JOHNSON Adj N
3330 28 (2) S5 F4 U-1 FSS: GARDEN CI
Remarks: P-lines N & S.

SHORE 9 SE
3240 30 (2) S1 F3 FSS: GARDEN CI

JUNCTION CITY MUNI 1 NW
1104 37 (3) BL4 S5 F3 U-1 FSS: GARDEN CI
Remarks: P-lines NE, SSW. Use strips rnwy 1 threshold d s-placed 360' rnwy 19 displaced 300'

KANOPOLIS STATE PARK See LANGLEY

KANORADO
WINTER Adj SE
3910 27 (1) S1 F2 FSS: GOODLAN
Remarks: P-line N. Use strip

KANSAS CITY
KANSAS CITY FAIRFAX MUNI See Section IV-A

STATE LINE AIR PARK 10 S
990 22 (3) S5 F3 U-1
FSS: KANSAS CITY (LC GR-1-45

KANSAS CITY SUBURBAN AIRPARK See BONNER SPRINGS

KEN-MAR See WICHITA

KINGMAN MUNI 1 NW
1606 27 (3) FSS: WICH
Remarks: P-line S. SW.

KINSLEY MUNI Adj SE
2169 26 (1) L4 F2 FSS: DODGE C
Remarks: Fence N & S.

KIOWA Adj W
1340 H19 (1) L4 F4 U-1 FSS: WICH
Remarks: Rnwy lgts dusk-2200. P-line N, S. clnl E 300' overrun each end.

KNITIG See REXFORD

KRATZER See GENESEO

LaCROSSE
HOOVER Adj NE
2060 21 (1) F2 FSS: RUSSE

LAKIN
DIENST RANCH 11 N
3200 32 (4) F2 FSS: GARDEN C
Remarks: P-line NE.

WHITE-LAKIN 2 N
3045 30 (2) F2 FSS: GARDEN CI

LANGLEY
KANOPOLIS STATE PARK 7 NW
1537 22 (1)

AIRPORT DIRECTORY

:NED MUNI 2 N
2012 36 (4) B S5 F4 FSS: RUSSELL

RENCE MUNI 3 N
832 H30 (1) BL4 S5 F4 U-1 FSS: KANSAS CITY
Remarks: P-line W. Use strips

SON FLD See NORCATUR

ANON Adj W
1320 20 (1) FSS: RUSSELL
Remarks: P-line N.

)RA MUNI 1 NW
2260 24 (3) FSS: HILL CITY

TI MUNI 1 S
300 26 (2) FSS: GARDEN CITY
Remarks: P-line W.

S
OSS 2 NE
115 26 (1) FSS: DODGE CITY
Remarks: P-line S.

ROLD FLD 1 SW
100 26 (1) FSS: DODGE CITY
emarks: P-line N.

RAL MUNI *IFR* 2 W
884 H70 (6) BL4 S5 F5 U-1 FSS: GARDEN CITY

)LN MUNI 1 NW
412 27 (2) *L4 S5 F2 FSS: SALINA
emarks: P-line NE, NW, SW.

AINE
KENS 2 SW
780 25 (1) FSS: RUSSELL
emarks: P-lines N, S & E.

S MUNI 1 W
'00 26 (4) L4 F4 FSS: WICHITA
emarks: P-line NW.

SVILLE
'H FLD 1 N
·25 26 (1) FSS: DODGE CITY

See WICHITA

ATTAN
E RIVER HILLS 13 NW
75 21 (1) FSS: MANHATTAN (LC PR6-9751)

HATTAN MUNI See Section IV-A

SENER 6 E
50 24 (1) FSS: MANHATTAN (LC PR6-9751)

ATO MUNI 1 NW
40 26 (2) S1 F3 FSS: SALINA
marks: Windmill NE; dike W end E/W strip; use strips.

MARION MUNI 2 SE
1390 36 (4) F2
Remarks: P-lines E.

MARTIN JOHNSON See CHANUTE

MARYSVILLE MUNI 1 NE
1283 27 (2) L4 F3 FSS: MANHATTAN
Remarks: P-lines NE & NNW.

McGUGIN See COFFEYVILLE

McPHERSON MUNI 1 SW
1493 H34 (1) L4 S5 F4 FSS: WICHITA
Remarks: P-line N, E.

MEADE MUNI 1 W
2528 25 (2) BL4 S1 F2 FSS: DODGE CITY
Remarks: P-line N & S.

MEDICINE LODGE 2 SE
1520 34 (2) FSS: WICHITA

MOLINE
ELK COUNTY 2 NE
1063 H26 (1) FSS: CHANUTE

MONTEZUMA
REXFORD 10 SW
2775 17 (3) FSS: DODGE CITY
Remarks: P-line W.

MOSCOW
WHITE 4 SE
3020 15 (2) F2 FSS: GARDEN CITY
Remarks: P-line N.

MOUNDRIDGE MUNI 1 SE
1470 18 (1) FSS: WICHITA
Remarks: P-line N.

NELSON FIELD See BENTON

NEODESHA MUNI 2 NE
840 H30 (1) FSS: CHANUTE
Remarks: P-line W. Use rnwys

NESS CITY MUNI Adj N
2240 26 (1) FSS: DODGE CITY

NEWTON MUNI 3 NE
1527 H70 (1) S5 F4 FSS: WICHITA

NORCATUR
LAWSON FLD 9 N
2400 22 (1)

NORTON MUNI 1 N
2365 H25 (1) BL4 S3 F4 U-1 FSS: HILL CITY
Remarks: Ruf. 4500' strip avbl.

OAKLEY MUNI 2 E
3042 35 (3) L4 F2 FSS: GOODLAND
Remarks: P-line NW, N. Displaced thresholds: rnwy 13,660' SE; rnwy 31, 367' NW.

AIRPORT DIRECTORY

OBERLIN MUNI 1 NW
2684 31 (1) BL4 S5 F4 U-1 FSS: HILL CITY
Remarks: 60' poles adj S

OLATHE-CITY 4 SE
1100 H30 (1) L4 S5 F4 U-1
FSS: KANSAS CITY (LC GR1-4572)
Remarks: P-line NW.

OSAGE CITY MUNI 1 E
1100 26 (1) S1
Remarks: P-line N & S

OSAWATOMIE-PAOLA MUNI 3 SW
945 32 (2) S1 F4
Remarks: P-line SE. NW/SE rnwy unsafe-wet

OSBORNE MUNI 1 SE
1565 26 (2) L4 S1 F2 FSS: RUSSELL

OSWEGO MUNI 3 E
825 28 (1) F2 FSS: JOPLIN
Remarks: P-line N.

OTTAWA MUNI 4 S
975 H24 (1) BL4 S5 F4 U-1 FSS: TOPEKA
Remarks: Use N/S rnwy. 2700' strip avail.

OXFORD MUNI 3 E
1185 32 (2) FSS: WICHITA

PARSONS
TRI CITY 11 W
899 H40 (3) BL4 F4 U-1 FSS: CHANUTE

PATTY FIELD See EL DORADO

PHILIP BILLARD MUNI See TOPEKA, PHILIP BILLARD MUNI in Section IV-A

PHILLIPSBURG MUNI 1 S
1882 33 (4) L4 S1 F4 U-1 FSS: HILL CITY

PITTSBURG-ATKINSON MUNI 3 NW
948 H40 (3) BL4 S5 F4 U-1 FSS: JOPLIN
Remarks: Use rnwys.

PLAINS MUNI Adj NE
2762 25 (3) S1 F2 FSS: GARDEN CITY
Remarks: P-lines S, SE.

PLAINVILLE
BEMIS 9 SE
1850 18 (1) FSS: RUSSELL

PRAIRIE OAK See PRETTY PRAIRIE

PRATT
FINCHAM 10 N
1960 28 (2) S1 FSS: DODGE CITY
Remarks: P-line E. Rolling unattended.

PRATT MUNI *IFR* 4 N
1951 H60 (2) BL4 S5 F4 U-1 FSS: DODGE CITY

PRETTY PRAIRIE
PRAIRIE OAK 1 NE
1573 25 (2) S1 F2
Remarks: P-line N, W.

PROTECTION MUNI 1 SE
1830 24 (3) F2 FSS: DODGE C
Remarks: P-lines E, W.

RANTOUL
DEMPSAY FARM Adj S
990 20 (2) *L4 S5 F2
Remarks: P-line E.

RAWDON FIELD See WICHITA

REXFORD
FOSTER FLD 3 SW
3029 24 (4)
Remarks: Surrounded by P-lines.

KNITIG 4 NE
2950 22 (4)
Remarks: P-line S.

REXFORD See MONTEZUMA

RICHFIELD Adj E
3410 18 (2) FSS: GARDEN C
Remarks: P-line S.

REOPKE See WATERVILLE

ROESENER See MANHATTAN

RUSSELL MUNI *IFR* 3 SE
1863 H26 (1) VL4 S5 F4 U-1 FSS: RUSSELL
Remarks: Ditch crosses NE end rnwy 3-21

SABETHA MUNI 1 E
1330 26 (2) L4 F4 FSS: TOPE
Remarks: Ruf. Rnwy 19, 470' displaced threshold.

ST FRANCIS MUNI 1 S
3415 37 (3) BL4 S1 F2 FSS: GOODL
Remarks: P-line N. Ruf.

SALINA MUNI *IFR* 2 SE
1332 H60 (1) BL6 S5 F4 VFR ADV: SCHILLING AF
CONN. 119.3, DEP CON 119.3 FSS: SALINA
Remarks: P-line NW. Rnwy 17 threshold dispiacec 45

SATANTA 1 N
2970 26 (2) F2 FSS: GARDEN C
Remarks: P-line E.

SCANDIA-BELLEVILLE 1 NE
1500 25 (1) S3 F3

SCOTT CITY
BUEHLER 5 NW
3050 25 (2) FSS: GARDEN C

AIRPORT DIRECTORY

SCOTT CITY MUNI 1 SE
2970 H25 (1) *L4 S1 F4 U-1 FSS: GARDEN CITY
Remarks: 3200' strip avail. P-lines N. NE, SW, W. Ruf. Use strips.

SEDAN
WALTERS 3 SE
954 18 (1) S1 FSS: CHANUTE

SENECA MUNI Ad, W
1250 23 (1)
Remarks: P-lines N & S.

SHERMAN AAF See FT LEAVENWORTH

SHIELDS
GILLS 3 NW
2780 24 (4) S1 FSS: GARDEN CITY

SHORE See JOHNSON

SKYRANCH See TOPEKA

SLEEPER See ALDEN

SMITH CENTER MUNI Ad, SW
1806 27 (3) L4 S3 F2 FSS: RUSSELL

SMITH FIELD See MACKSVILLE

SOLAN
ANDERSON FLD Ad, NE
1350 21 (1) F2

STAFFORD MUNI 3 W
1889 (26 (4) L4 S5 F4 U-1 FSS: WICHITA
Remarks: P-lines N, NE; lgts avail. SS-2 AM; use strips; ruf.

STARK See COLDWATER

STATE LINE AIRPARK See KANSAS CITY

STERLING 1 NW
1680 26 (1) F2
Remarks: Unattended. Soft when wet.

STILWELL
JACOBSON 4 NE
1050 25 (1) S5 F2

STILWELL-MISSION ROAD 3 NE
1050 23 (1)

STOCKTON
STOCKTON MUNI 3 S
1978 35 (1) BL4
Remarks: When wet.

WEBSTER RESERVOIR 7 SW
1965 25 (1)
Remarks: P-line N.

STROTHER AUX No 1 See ARKANSAS CITY

STROTHER AUX No 2 See ARKANSAS CITY

STROTHER FLD See WIND FIELD-ARKANSAS CITY

SUBLETTE-FLYING CLUB 1 NE
2900 26 (2) FSS: GARDEN CITY
Remarks: P-lines S & E

SUMMERFIELD Ad, SE
1560 23 (1) S1 F2

SYRACUSE
DIKEMAN 9 NE
3543 32 (2) *L4 S1 F4 U-1 FSS: GARDEN CITY

SYRACUSE MUNI 1 N
3320 H25 (1) BL4 S1 F4 U-1 FSS: GARDEN CITY
Remarks: P-lines NW & SW. 3100' strip avbl.

TOPEKA
ALLEN ARPK 4 SW
1000 H23 (1) L4 S5 F4 U-1
FSS: TOPEKA (LC CE 2-5478)
Remarks: N S strip-ditch. Soft when wet.

PHILIP BILLARD MUNI See Section IV-A

SKYRANCH 8 SW
1200 22 (2) F2 U-1 FSS: TOPEKA
Remarks: P-lines NE & S. Unattended.

TRACY See ARGONIA

TRIBUNE MUNI 1 S
3620 26 2· F4 FSS: GARDEN CITY
Remarks: P-line W, fence N.

TRI CITY See PARSONS

ULYSSES
HUGOTON STATION 11 SE
3025 38 (2) FSS: GARDEN CITY

ULYSSES 1 NA
3065 H26 (1) L4 S5 F4 U-1 FSS: GARDEN CITY
Remarks: Ant. S.

VINLAND VALLEY See BALDWIN

WAKEENEY
GALLOWAY 3 NE
2480 20 (1) F2 FSS: HILL CITY

WALTER'S See SEDAN

WASHINGTON MUNI 1 E
1290 22 (2) S1 FSS: MANHATTAN
Remarks: Fence N & NW.

WATERVILLE
ROEPKE 6 S
1425 20 (1) F2 FSS: MANHATTAN
Remarks: P-line N.

AIRPORT DIRECTORY

WEBSTER RESERVOIR See STOCKTON

WELLINGTON
DAY 5 SW
1250 26 (1) F2 FSS: WICHITA

WELLINGTON 3 N
1290 26 (1) S1 F4 FSS: WICHITA

WESTPORT See WICHITA

WESTPORT AUX See WICHITA

WHITE See MOSCOW

WICHITA
WICHITA BEECH See Section IV-A

CESSNA AIRCRAFT FLD 4 SE
1384 H23 (1) S1 F4 FSS: WICHITA (DL)
VFR ADV: For APP CON, DEP CON See WICHITA MUNI in Section IV-A
Remarks: Wichita, Cessna Acft Fld–Only rnwys 17L and 35R on E side of fld open to public due to McConnel AFB tfc. Apchs to and deps from this rnwy must be from and to the E not above 1700′ MSL within 3 mi of AFB. Avoid crossing N and S apchs and tkoff lanes of jet acft to McConnell AFB. McConnell twr can be ctcd on 126.2 or 121.6 for tfc and lndg info. Under IFR conditions ctc Wichita apch ctl for tfc clearance prior to entering McConnell ctl zone. Tsmt and rcv 120.1 or 125.7 mc Tsmt 122.7 listen 120.1, 125.7 mc or range voice feature. Unattended ngts, Sats after 1300C and Suns. 5300′ strip available.

KEN-MAR 6 NE
1429 H22 (1) L4 S5 F4 U-1
FSS: WICHITA (LC WH 2-2261 (2))
VFR ADV: For APP CON, DEP CON See WICHITA MUNI in Section IV-A
Remarks: P-lines N, SW. Use strips. 2900′ strip avail.

MAIZE 2 SE
1336 26 (1) S5 F4 FSS: WICHITA (LC WH 2-2261 (2))
Remarks: 30′ wire across road N.

RAWDON FLD 5 E
1396 H25 (1) L4 S5 F4 U-1
FSS: WICHITA (LC WH 2-2261 (2))
Remarks: P-line S. Rgt. tfc N.

WESTPORT 4 SW
1290 26 (1) S1 F2 FSS: WICHITA

WESTPORT AUX 5 SW
1285 26 (1) S1 FSS: WICHITA
Remarks: Ruf. When wet. P-line N.

WICHITA MUNI See Section IV-A

WILKENS See LORRAINE

WILROADS GARDENS See DODGE CITY

WILSON Adj NW
1730 24 (1)

WINFIELD-ARK CITY
STROTHER FLD 5 SW
1161 H58 (3) BL4 S5 F4 U-1 FSS: PONCA CITY

WINTER See KANORADO

WOMACK See IOLA

WOOD AIRPARK See CLAY CENTER

WRIGHT AIRPARK See ABILENE

ZENITH
HAYES PORT 1 SE
1800 (24 (2)
Remarks: P-lines W, N.

KENTUCKY

ALBANY 4 SW
1020 23 (1) S5 FSS: LONDON
Remarks: P-line S.

ARNOLD See SPRINGFIELD

ASHLAND-BOYD COUNTY *IFR* 3 NW
546 H50 (1) BL4 F4 FSS: HUNTINTON (LC GL 3-1411)

BARDSTOWN
SAMUELS FLD 2 W
665 H32 (1) F4
Remarks: Rdo twrs NE.

BARKLEY FIELD See PADUCAH

BELL COUNTY See MIDDLESBORO

BEREA-RICHMOND 4 N
985 24 (1) F2 FSS: LEXINGTON

BLUE GRASS See LEXINGTON, BLUE GRASS in Section IV-A

BOWLING GREEN-WARREN CO *IFR* 3 SE
539 H52 (2) BL4 S3 F4 FSS: BOWLING GREEN on F'c
Remarks: Approach to runway 12 blocked.

BOWMAN FLD See LOUISVILLE, BOWMAN FIELD in Section IV-A

BUTLER STATE PARK See CARROLLTON

CALLOWAY COUNTY (KYLE FLD) See MURRAY

CAMPBELLSVILLE
TAYLOR CO 1 NE
905 H30 (1) L4 S5 F4 FSS: LOUISVILLE

CAPITAL CITY See FRANKFORT

CARROLLTON
BUTLER STATE PARK 2 SE
488 24 (1) FSS: CINCINNATI

AIRPORT DIRECTORY

OLONIAL See **MADISONVILLE**

OLUMBIA
STREEVAL 5 NE
835 21 (1) F2 FSS: LOUISVILLE
Remarks: P-line E.

ORBIN
HENRY FLD Ad, NE
1220 18 (1) S3 F2 FSS: LONDON

OVINGTON GREATER CINCINNATI, OHIO See **CINCINNATI, OHIO GREATER CINCINNATI** in Section IV-A

NTHIANA-HARRISON CO 1 S
720 35 (1) L4 S5 F4 U-1 FSS: LEXINGTON

M STATE PARK See **GILBERTSVILLE**

NVILLE
GOODALL 3 S
1030 H24 (1) L4 F4 U-1 FSS: LEXINGTON
Remarks: P-line N.

IZABETHTOWN-HARDIN CO 3 NW
880 H28 (1) S3 F4 FSS: LOUISVILLE

KTON
STANDARD FLD 1 W
635 33 (1) FSS: BOWLING GREEN

LANGER
SCOTTSDALE 2 SE
880 30 (2)
Remarks: Unattended.

LLS OF ROUGH
ROUGH RIVER STATE PARK 3 NE
577 H25 (1) FSS: BOWLING GREEN
Remarks: 700' turf overrun rnwy 1, 300' rnwy 19.

EMINGSBURG-CHEAP 1 NW
920 12 (1) F2
Remarks: P-line NE and SW. Land to NE, tkof SW only.

ANKFORT
CAPITAL CITY 1 SW
799 H40 (1) BL4 S1 F4 U-1 FSS: LEXINGTON

LTON MUNI 2 NW
400 H27 (1) F2 FSS: PADUCAH

ORGETOWN
MARSHALL FLD 1 S
885 18 (1) S5 F2 U-1 FSS: LEXINGTON
Remarks: TV ant NE.

BERTSVILLE
Y DAM STATE PARK 1 SE
349 H40 (1) L4 S3 F4 FSS: PADUCAH (LC 442-1551)

ASGOW MUNI 3 NW
712 H30 (1) BL4 S3 F4 FSS: BOWLING GREEN

GOLDEN POND
KEN LAKE 3 W
388 H20 (1) F2 FSS: PADUCAH
Remarks: Hills, trees along SE side of rnwy. Poles close NW side. Both opchs hazardous.

GOODALL See **DANVILLE**

GREENVILLE
MUHLENBERG CO 2 NE
416 H32 (1) BL4 S5 F4 U-1 FSS: BOWLING GREEN
Remarks: 500' overrun NE end.

HARLAN
TUCKER-GUTHRIE MEM'L 2 W
1551 H27 (1) F4 FSS: LONDON
Remarks: Hill E.

HARRODSBURG-MERCER 3 N
880 30 (1) L4 S5 F4 FSS: LEXINGTON

HAZARD 1 NW
861 H23 (1) S1 F4 FSS: LONDON

HENDERSON
HENDERSON *IFR* 4 SW
385 H35 (1) BL4 S3 F4 U-1
VFR ADV For APP CON, DEP CON See EVANSVILLE. DRESS MEML in Section IV-A
Remarks: 370' overrun E end runwy 8-26. Sod strip unusable during winter.

SPENCER CHEMICAL CO 3 SW
390 34 (1)
Remarks: Pole W.

HENRY FLD See **CORBIN**

HOPKINSVILLE-CHRISTIAN CO *IFR* 1 E
541 H30 (1) L4 F4 FSS: BOWLING GREEN
VFR ADV CAMPBELL APP CON 137.65 118.1 (E)

KENLAKE See **GOLDEN POND**

KENTUCKY DAM STATE PARK See **GILBERTSVILLE**

KYLE FIELD See **MURRAY**

LEXINGTON BLUE GRASS See Section IV-A

LONDON-CORBIN MUNI *IFR* 3 S
1201 H40 (1) BL4 F4 FSS: LONDON on Fld
Remarks: 3' deep ditch along NW side loading ramp.

LOUISVILLE
LOUISVILLE BOWMAN FLD See Section IV-A
STANDIFORD FLD See Section IV-A

MADISONVILLE
MADISONVILLE ATHEY 1 NE
440 19 (1) F2 FSS: BOWLING GREEN
Remarks: Road N overrun 115' NE end. 125' SW end.

AIRPORT DIRECTORY

COLONIAL 7 SW
375 40 (1) L4 F4 FSS: BOWLING GREEN

MADISONVILLE MUNI *IFR* 5 NE
438 H35 (2) B*L6 S5 F4 U-1 FSS: BOWLING GREEN
Remarks: P-line S. 500' overrun SW end rnwy 5-23. 40' TV ant S.

MARSHALL FLD See GEORGETOWN

MAYFIELD-GRAVES CO 3 NE
525 H33 (1) L4 FSS: PADUCAH
Remarks: P-line N & S.

MIDDLESBORO
BELL COUNTY 1 W
1140 H36 (1) S5 F2 FSS: LONDON
Remarks: P-line E.

MOREHEAD-ROWAN CO 5 SW
840 30 (1) F4 FSS: LEXINGTON

MUHLENBERG CO See GREENVILLE

MURRAY
CALLOWAY COUNTY (KYLE FLD) 5 NW
573 H30 (1) L4 F4 FSS: PADUCAH

OLIVE HILL 3 SE
1016 28 (1) S1 F4 FSS: HUNTINGTON

OWENSBORO-DAVIESS CO *IFR* 3 SW
407 H50 (2) BL4 S5 F4 U-1

PADUCAH
BARKLEY FLD *IFR* 8 W
407 H50 (2) BL4 S5 F4 U-1 FSS: PADUCAH on Fld
Remarks: REIL rnwy 4.

PIKEVILLE-PIKE CO MUNI 2 NW
671 27 (1) S3 F4 U-1 FSS: HUNTINGTON
Remarks: Lgt acft only. Unattended.

PRINCETON-CALDWELL CO 1 NE
570 32 (1) FSS: PADUCAH

ROUGH RIVER STATE PARK See FALLS OF ROUGH

SAMUELS FLD See BARDSTOWN

SCOTTSDALE See ERLANGER

SOMERSET-PULASKI CO 3 S
927 H28 (1) BL4 S5 F4 FSS: LONDON

SPENCER CHEMICAL CO See HENDERSON

SPRINGFIELD
ARNOLD 3 SE
810 21 (1) L4 S1 F2 U-1 FSS: LOUISVILLE

STANDARD FLD See ELKTON

STANDIFORD FLD See LOUISVILLE, STANDIFORD in Section IV-A

STANTON Adj E
650 H30 (1) L2, 4 S5 F4 U-1 FSS: LEXINGTON
Remarks: Circle town for service.

STREEVAL See COLUMBIA

STURGIS MUNI 2 E
372 H50 (3) F2
Remarks: Sunken area at intersection NE/SW, E/W rnwys.

TAYLOR CO See CAMPBELLSVILLE

LOUISIANA

ABBEVILLE MUNI 3 E
16 H30 (1) BL4 F4 FSS: LAFAYETTE
Remarks: P-line S, SW.

ADAMS See LOCUST RIDGE

ALEXANDRIA
BUHLOW LAKE Adj N
100 H30 (1) S3 F4 FSS: ALEXANDRIA (LC 445-36[illegible]
Remarks: P-line N, soft when wet.

ESLER FLD *IFR* 10 NE
108 H52 (3) BL4 S3 F4 U-1 FSS: ALEXANDRIA or F[illegible]
VFR ADV ALEXANDRIA APP CON 134.1, 122.5R, 118.2, E

MYERS ARPT No 2 8 NW
80 24 (1) S3 F2 TPA: 300' MSL
FSS: ALEXANDRIA (LC 445-36[illegible]
Remarks: P-line S. Rgt tfc N. Tfc pat 300' apchg from E-W operns in vicinity.

AMELIA FLYING SERVICE 1 N
5 40 (2) L4 F4

AMITE
HAYDEN 5 E
200 25 FSS: McCOMB
Remarks: P-line S and W. Soft when wet.

BASTROP
MOREHOUSE MEML 2 SE
169 H30 (1) L4 S5 F4 U-1 FSS: MONROE

BATON ROUGE
BURDEN ARPK 4 SE
50 41 (1) FSS: BATON ROUGE (LC EL 5-2[illegible]
Remarks: Soft when wet.

DOWNTOWN 3 E
53 H30 (2) S5 F4 U-1
FSS: BATON ROUGE (LC EL 5-2[illegible]
VFR ADV For APP CON DEP CON See BATON ROUGE RYAN in Section IV-A
Remarks: P-line N.

RYAN See Section IV-A

AIRPORT DIRECTORY

EAUREGARD PARISH See De RIDDER

OGALUSA MUM 2 N
113 H36 (1) BL4 S1 F4 FSS: McCOMB

ORDELON ARPK See BREAUX BRIDGE

REAUX BRIDGE
BORDELON ARPK 3 NE
22 36 (2) L4 S3 F2
Remarks: P-line N, NE. Lgts on prior req after 10 PM. Rnwys 2 & 20 approaches restricted by trees.

SPILLER CLUB 3 S
12 28 (1)
Remarks: P-line N, S.

ROUSSARD See ST MARTINVILLE

HLOW LAKE See ALEXANDRIA

INKIE
HAAS 3 W
58 24 (2) S3 F2 FSS: ALEXANDRIA
Remarks: P-line S.

TEBOW FLD Adj E
60 36 (1) F2 FSS: ALEXANDRIA

IRDEN ARPK See BATON ROUGE

ERLEY See LAKE PROVIDENCE

MERON Adj NW
5 25 (1) *L4 F4 FSS: LAKE CHARLES

AYTON
FLETCHER 3 SW
61 20 (1) S3 F3
Remarks: P-line NE.

INTON
McCUTCHEON FLD 2 NW
200 21 (1) FSS: BATON ROUGE

OVELLY See CUT OFF

OK See FLORIEN

RKERN See ENON

USHATTA
LAND 4 N
210 20 (1) FSS: SHREVEPORT
Remarks: P-line N.

VINGTON
C.P. 2 NW
27 27 (1)
Remarks: Twr N. P-line N, E & SE. Soft when wet.

OWLEY
.E GROS MEML 6 SW
16 H43 (2) BL4 S3 F4 U-1 FSS: LAFAYETTE

CUPPLES See ROBSON

CUT OFF
CLOVELLY 2 E
3 24 (1)

DELHI MUNI 3 S
90 28 (1) FSS: MONROE

DEQUINCY 1 SW
78 26 (2) L4 F2 FSS: LAKE CHARLES
Remarks: Lgts on request thru LKC FSS.

DE RIDDER
BEAUREGARD PARISH 3 SW
203 H45 (4) BL4 S5 F4 U-1 FSS: LAKE CHARLES
Remarks: Rnwy 18 threshold lgts displayed 400' S. Rnwy lgts prior req after 2400.

DESOTO PARISH See MANSFIELD

DIPPLE and ENETTE See ST FRANCISVILLE

DOWNTOWN See BATON ROUGE

DOWNTOWN See SHREVEPORT, DOWNTOWN in Section IV-A

DUGAS See NEW IBERIA

ENON
CORKERN 1 SE
105 18 (1) S3 FSS: McCOMB

ESLER FLD See ALEXANDRIA

FARMERVILLE 5 SE
119 H30 (1)
Remarks: Rnwy shldrs soft.

FERGUSON See ROANOKE

FERRIDAY
SUMMERELL 4 NE
64 28 (1) S3 F3

FLEEMAN FLD See LAKE PROVIDENCE

FLETCHER See CLAYTON

FLORIEN
COOK 1 S
207 17 (1) S3 FSS: ALEXANDRIA
Remarks: Unattended.

FRANKLINTON-AIRSTRIP 1 S
154 26 (1) FSS: McCOMB

FRAZIER See WAVERLY

GLADNEY See RAYNE

GREATER SHREVEPORT See SHREVEPORT, GREATER SHREVEPORT in Section IV-A

AIRPORT DIRECTORY

GREEN AND GOLD PLANTATION See LULING

HAAS See BUNKIE

HACKBERRY Adj NW
6 22 (1)
Remarks: P-line S and W.

HALL See MONTGOMERY

HAMMOND MUNI 3 NW
40 H50 (3) BL4 F4 U-1

HAND See COUSHATTA

HANKS AND CORMIER AIRSTRIP See KAPLAN

HART See MANY

HAYDEN See AMITE

HAYNESVILLE 1 N
360 22 (1) FSS: EL DORADO

HERBERT AIRSTRIP See SCHRIEVER

HOSSTON
NICHOLS 3 NW
260 23 (1) F2 FSS: SHREVEPORT

HOUMA MUNI *IFR* 3 SE
11 H50 (2) BL4 S3 F4 U-1 FSS: NEW ORLEANS

JEANERETTE 1 S
14 H30 (1) F2 FSS: LAFAYETTE
Remarks: P-line NE. Ruts during wet wea. Rdo twr NW.

JENA 2 SW
215 21 (2) FSS: ALEXANDRIA
Remarks: P-line S.

JENNINGS 1 NW
25 31 (3) S5 F4 FSS: LAKE CHARLES
Remarks: Rgt tfc. Strips 17, 22, 13.

JONESBORO 3 SW
248 H32 (1) BL4 F2

JONESVILLE Adj W
56 H30 (1) F2 FSS: ALEXANDRIA
Remarks: Surrounded by P-lines.

JOYCE See WINNFIELD

K. C. RANCH See TALLULAH

K. P. See COVINGTON

KAPLAN
HANKS AND CORMIER AIRSTRIP 1 W
16 17 (1) F2 FSS: LAFAYETTE
Remarks: P-line S.

KAPLAN FLYING SERVICE 5 SE
12 15 (1) FSS: LAFAYETTE

KAPLAN MUNI Adj E
121 34 (1) S5 F2 FSS: LAFAYETTE
Remarks: P-line N.

LAFAYETTE See Section IV-A

LAKE CHARLES MUNI See Section IV-A

LOUISIANA FLYERS 4 SE
19 32 (1) S5 F4 FSS: LAKE CHARLES (LC 477-1754)

McFILLEN AIRPARK 5 SE
18 25 (1) L4 F4 FSS: LAKE CHARLES (LC 477-1754)
Remarks: Rnwy lgts on prior request after 2400.

MORGAN CORP SERVICE NO 2 12 SE
12 29 (1) S3 F3 FSS: LAKE CHARLES (LC 477-1764)

LAKE PROVIDENCE
BYERLEY 2 NW
106 35 (2) L4 S1 F2 FSS: MONROE
Remarks: P-line SE. Rnwy 17 threshold displayed 150' S.
Rnwy 35 displayed 300' N.

FLEEMAN FLD 1 S
100 21 (1) L4 S3 F4 FSS: MONROE
Remarks: Twr E.

LAKEFRONT See NEW ORLEANS, LAKEFRONT in Section IV-A

LECOMPTE
SUMMERVILLE FLD 4 N
75 36 (1) *L S3 F2 FSS: ALEXANDRIA (LC 445-3665)
Remarks: P-line E, W.

LEE See NEWELLTON

LeGROS MEML See CROWLEY

LETTSWORTH Adj N
40 24 (1) FSS: ALEXANDRIA
Remarks: P-line NE, NW.

LOCUST RIDGE
ADAMS 1 NE
68 16 (1)
Remarks: P-line SE.

LOUISIANA FLYERS See LAKE CHARLES

LUCIEN See SHREVEPORT

LULING
GREEN AND GOLD PLANTATION 2 W
5 20 (1)

LYON See THORNWELL

MANSFIELD
De SOTO PARISH 4 NW
322 H51 (3) F4 U-1 FSS: SHREVEPORT

AIRPORT DIRECTORY

ANY
HART 2 SW
324 H30 (1) S3 FSS: ALEXANDRIA

ARKSVILLE MUNI 2 S
78 H30 (1) F2 FSS ALEXANDRIA

ARLIN See TALLULAH

CUTCHEON FLD See CLINTON

FILLEN AIRPARK See LAKE CHARLES

ERRYVILLE Adl SE
200 17 (1) FSS: LAKE CHARLES
Remarks: P-line S.

NDEN-WEBSTER 2 N
290 H36 (1) L4 F4 U-1 FSS: SHREVEPORT
Remarks: P-line W.

NROE SELMAN See Section IV-A

SHANGRI LA AIRPARK 7 NE
79 13 (1) F2
Remarks: Approaches to both ends rnwys restricted by P-lines. Glide angle 0 to 1. Unattended. Soft when wet.

NTGOMERY
HALL 1 NW
100 30 (1)

REHOUSE MEML See BASTROP

RGAN CROP SERVICE No 2 See LAKE CHARLES

ERS ARPT No 2 See ALEXANDRIA

TCHITOCHES MUNI 2 SW
115 H41 (2) BL4 S5 F4 FSS: ALEXANDRIA
Remarks: P-line S.

YLOR AIRSTRIP See ROBSON

W IBERIA
OUGAS 3 N
20 37 (1) F2 FSS: LAFAYETTE

EW IBERIA NAAS *IFR* 3 N
24 H80 (1) BL6 S5 F4
FSS: LAFAYETTE (LC CE 5-3752)
Remarks: Rnwy lgts avbl dusk-2300 thereafter on prior req. Open civil acft.

W ORLEANS LAKEFRONT See Section IV-A

W ORLEANS INTL (MOISANT FLD) See Section IV-A

WELLTON
EE 3 SE
79 45 (1) FSS: MONROE

NEWELLTON 1 SW
77 H27 (1) BL4 S1 F3 FSS: MONROE
Remarks: Fuel by phone. RR NE.

NICHOLS See HOSSTON

OAK GROVE
ROBERTS 5 NE
110 26 (1) *L FSS: MONROE
Remarks: Rnwy lgts on prior req phone call GA 8-2834. Tie down.

OPELOUSAS
ST LANDRY PARISH 2 NW
75 H45 (3) F4 FSS: LAFAYETTE
Remarks: Fuel avbl after hrs by phone.

PATTERSON
WILLIAMS MEML 2 NW
9 H40 (1) BL4 S5 F3 FSS: LAFAYETTE

POLLOCK MUNI 4 SW
213 H45 (3) FSS: ALEXANDRIA

RAYNE
GLADNEY 7 SE
20 17 (1) FSS: LAFAYETTE
Remarks: P-line N.

RAYNE MUNI 1 NW
29 18 (2) FSS: LAFAYETTE

RAYVILLE MUNI 1 NW
83 H23 (1) F2 FSS: MONROE
Remarks: P-line S.

RED BEARD DUSTING SERVICE See TALLULAH

ROANOKE
FERGUSON 2 NE
35 12 (2) S1
Remarks: P-line S end.

ROBERTS See OAK GROVE

ROBSON
CUPPLES Adl SW
174 22 (1)

NAYLOR AIRSTRIP 1 W
155 19 (1) F3
Remarks: P-line N end.

RUSTON MUNI 1 S
317 H34 (1) BL4 S3 F4 U-1 FSS: MONROE

RYAN See BATON ROUGE, RYAN in Section IV-A

ST FRANCISVILLE
DIPPLE AND ENETTE 2 NW
150 29 (2) F2 FSS: BATON ROUGE

ST LANDRY PARISH See OPELOUSAS

AIRPORT DIRECTORY

ST MARTINVILLE
BROUSSARD Adj NW
30 25 (1)

ST MARTINVILLE Adj NE
30 27 (1)

SCHRIEVER
HEBERT AIRSTRIP 1 W
12 36 (1) F2 FSS: NEW ORLEANS
Remarks: Twr N and S, P-line E.

SCOTT See TALLULAH

SELMAN See MONROE, SELMAN in Section IV-A

SHANGRI LA AIRPARK See MONROE

SHREVEPORT DOWNTOWN See Section IV-A

GREATER SHREVEPORT See Section IV-A

LUCIEN 6 S
210 30 (1) L F2 FSS: SHREVEPORT (LC ME 1-3661)

SPILLER CLUB See BREAUX BRIDGE

SUMMERELL See FERRIDAY

SUMMERVILLE FLD See LECOMPTE

TALLULAH
K C RANCH 10 SE
84 30 (1) F2 FSS: MONROE
Remarks: P-line N and S.

MARLIN 1 S
80 24 (2) F2 FSS: MONROE
Remarks: P-line E. 100' tier SE.

RED BEARD DUSTING SERVICE 7 SE
86 25 (1) S3 F2 FSS: MONROE
Remarks: Rnwy sides soft.

SCOTT 3 E
84 32 (2) *L4 S5 F2 U-1 FSS: MONROE
Remarks: Bcn prior req.

TEBOW FLD See BUNKIE

THORNWELL
LYON 3 SW
5 21 (1)
Remarks: Wires N, S.

VIVIAN 2 SW
260 25 (1) S5 FSS: SHREVEPORT
Remarks: 3 oil derricks S.

WATERPROOF 2 SW
64 37 (1) F2 FSS: MONROE
Remarks: Soft when wet.

WAVERLY
FRAZIER Adj NW
80 29 (1) FSS: MONROE

WELSH Adj NW
19 H27 (1) BL4 S5 F4 FSS: LAKE CHARLES
Remarks: Use rnwy 17-35 dry wea only.

WESTWEGO INC 3 SE
2 33 (1) S5 F4 U-1 FSS: NEW ORLEANS

WILLIAMS MEML See PATTERSON

WINNFIELD
JOYCE 3 NW
156 H30 (1) FSS: ALEXANDRIA
Remarks: Twr 3 mi SW. P-line E.

WINNSBORO MUNI 1 E
80 H30 (1) BL4 S3 F4 U-1 FSS: MONROE
Remarks: 1000' turf overrun each rnwy 17-35. Sod soft when wet.

WISNER AIRSTRIP 1 W
72 15 (1) F2 FSS: MONROE
Remarks: P-line N.

WOODWORTH AIRSTRIP 1 S
140 21 (1) F2 U-1 FSS: ALEXANDRIA (LC 445-3663)
Remarks: P-line W. Deep gully N and S. Rolling.

MAINE

AUBURN-LEWISTON MUNI 4 SW
292 H50 (2) BL4 S4 F4 U-1 FSS: AUGUSTA
Remarks: Rnwy 17-35 ruf.

AUGUSTA-STATE *IFR* 1 NW
357 H42 (3) BL4 S5 F4 FSS: AUGUSTA (on FD)
Remarks: Rnwy 3-31 clsd acft over 15,000 lbs, and all acft winter months.

BARING
ST CROIX Adj E
105 H25 (1) *L F4 U-1 FSS: OLD TOWN
Remarks: P-line NW. Ctn narrow strip. 3000' strip avbl.

BAR HARBOR *IFR* 7 NW
84 H45 (3) BL4 S5 F4 U-1

BELFAST MUNI 1 SW
195 H40 (2) S1 F2 FSS: AUGUSTA

BETHEL 1 NW
660 18 (1) F2 FSS: AUGUSTA

BIDDEFORD MUNI 2 SW
160 H20 (1) FSS: PORTLAND

BLUE HILL 3 NE
360 23 (1) FSS: OLD TOWN
Remarks: Soft when wet.

BOWMAN FLD See LIVERMORE FALLS

AIRPORT DIRECTORY

BREWER 1 S
100 21 (1) *L S5 F2 FSS: OLD TOWN (LC 827-4010)
Remarks: Soft when wet. Use gravel strip only in spring. Extreme ctn, jet apchs & tkofs from Dow AFB. Tfc patn 600' rgt tfc, lndg to N. All apchs & dptrs to be made E of the arpt.

CAMERONS See **PATTEN**

CARIBOU MUNI *IFR* 1 NW AOE
623 H34 (2) *L4 S1 F4 VFR ADV: LORING APP CON
122.5R FSS: HOULTON
Remarks: Bcn on prior request. Rnwy 29 threshold displaced 260' W.

CHEBLOIS FLIGHT STRIP 2 SE
217 H40 (1) FSS: OLD TOWN

EXTER MUNI 3 SE
485 H30 (1) S1 FSS: OLD TOWN

OVER-PINECROFT
PINECREST 1 SW
460 18 (1) F2 FSS: OLD TOWN
Remarks: Unattended.

RISKO'S See **JONESBOR**

ASTERN SLOPES REGIONAL See **FRYEBURG**

ASTPORT MUNI 1 NW
67 H28 (2) FSS: OLD TOWN
Remarks: Unsafe-holes, ruf, P-lines SE, NE, SW.

USTIS-STRATTON 1 SE
1190 14 (1) FSS: AUGUSTA

ERNALD See **WINTERPORT**

ORT FAIRFIELD MUNI 1 SW
470 18 (1) FSS: HOULTON
Remarks: Tall weeds on strip.

ORT KENT MUNI 3 S
708 20 (1) FSS: HOULTON

REEPORT
STOVER 3 NW
180 11 (1) S1 FSS: AUGUSTA
Remarks: Rolling; drains NW.

RYEBURG
EASTERN SLOPES REGIONAL 2 SE
449 H30 (1) BL4 F4 U-1 FSS: AUGUSTA

REENVILLE MUNI 2 NE
1401 H30 (2) B*L S5 F4 FSS: MILLINOCKET

ARRISON
MAPLE RIDGE 3 SE
570 21 (1) F2 FSS: AUGUSTA

OGAN'S FLD See **NORTH NEW PORTLAND**

HOULTON INTL *IFR* 2 SE
493 H50 (2) BL4 S1 F4 FSS: HOULTON (on Fld)
Remarks: Use center taxwy only. Twr W. Rnwy 1-19 clsd winters. Rnwy 5-23 plowed winters. Apchs rnwy 1 and 19 restricted by trees.

HUDSON
ROBBINS FLD 2 SW
365 17 (1) S1 F2 FSS: OLD TOWN
Remarks: Rolling. Irregular attendance.

JACKMAN
NEWTON FLD Adj E
1170 22 (1) FSS: MILLINOCKET
Remarks: Clsd winters. Brush NW.

JONESBOR
DRISKO'S 1 SE
30 9 (1) F2
Remarks: P-line S.

JONESPORT
SAWYER'S STRIP 2 NE
00 10 (1)

KIMBALL'S See **OXFORD**

LA FLEUR See **WATERVILLE**

LIVERMORE FALLS
BOWMAN FLD 4 SE
325 17 (1)

LUBEC 2 SW
82 20 (1) L4 FSS: OLD TOWN
Remarks: Soft-wet, Bcn on Req. Irregular attendance.

MAHEU See **MINOT**

MAPLE RIDGE See **HARRISON**

MILLINOCKET MUNI *IFR* 1 SE
408 H50 (2) BL4 S3 F4 FSS: MILLINOCKET (on Fld)
Remarks: Cracks and bumps in rnwy.

MINOT
MAHEU 3 NW
720 21 (1) S1 F4

MOOSE RIVER
SKY LODGE 1 N
1350 17 (1) F2 FSS: MILLINOCKET

NEWTON FLD See **JACKMAN**

NORRIDGEWOCK MUNI 3 W
270 H40 (2) FSS: AUGUSTA
Remarks: Rnwys cracked.

NORTH NEW PORTLAND
HOGAN'S FLD 1 W
450 20 (1) FSS: AUGUSTA
Remarks: P-line S.

AIRPORT DIRECTORY

OLD TOWN MUNI *IFR* 2 S
126 H40 (2) BL4 S5 F4 **VFR ADV:** Dow APP CON
122.5R **FSS:** OLD TOWN (on Fld)
Remarks: Ctn edges rnwys ruf. Use rnwys. 23′ lgtd twr 825′ S of intsxn rnwys 15-33 & 04-22.

OXFORD
KIMBALL'S 1 NE
330 20 (1) **FSS:** AUGUSTA
Remarks: P-lines apch rnwy 35.

PATTEN
CAMERONS 4 NW
900 10 (1) F2 **FSS:** HOULTON
Remarks: S end soft.

PHILLIPS
RAYMOND 1 S
556 18 (1) **FSS:** AUGUSTA

PINECREST See DOVER-PINECROFT

PITTSFIELD MUNI 1 SE
190 H40 (2) B*L4 S5 F4 U-1 **FSS:** AUGUSTA

PORTLAND MUNI See Section IV-A

PORT O'MAINE See SOUTH PORTLAND

PRESQUE ISLE MUNI *IFR* 1 NW
534 H74 (2) BL6, 8 S5 F4 U-1
VASI: RNWY 29 **FSS:** HOULTON
VFR ADV: LORING APP CON 122.5 R

PRINCETON MUNI *IFR* 1 SE
266 H40 (2) BL4 S1 **FSS:** OLD TOWN

RANGELEY MUNI 1 NW
1810 29 (1) F2 **FSS:** AUGUSTA
Remarks: Rolling.

RAYMOND See PHILLIPS

ROBBINS FLD See HUDSON

ROCKLAND MUNI *IFR* 3 SE
60 H45 (3) BL4 S1 F4 U-1 **FSS:** AUGUSTA

ST CROIX See BARING

SANFORD MUNI *IFR* 4 SE
243 H60 (3) BL4 S3 F4 U-1 **FSS:** PORTLAND
Remarks: Do not use NW safety strip on rnwy 8-26. 4100′ rnwy 14-32 lgtd.

SAWYER'S STRIP See JONESPORT

SKY LODGE See MOOSE RIVER

SOUTH PORTLAND
PORT O'MAINE 2 SW
60 28 (1) S5 F4 **FSS:** PORTLAND (LC SP 5-0602)
Remarks: P-line SW.

STONINGTON 1 NW
20 17 (1) **FSS:** OLD TOWN
Remarks: Ruf, soft and wet.

STOVER See FREEPORT

THOMASTON 2 NE
50 18 (1) S5 F2 U-1 **FSS:** AUGUSTA

TOPSHAM 3 NW
128 21(2) S5 F2 U-1 **FSS:** AUGUSTA
Remarks: P-line S.

TURNER
TWITCHELL 4 SE
350 22 (3) S5 F4 U-1 **FSS:** AUGUSTA
Remarks: P-line NW.

TWITCHELL See TURNER

WATERVILLE
LA FLEUR 2 SW
332 H40 (3) BL4 S5 F4 U-1 **FSS:** AUGUSTA

WINTERPORT
FERNALD 3 NW
181 H40 (2) S3 F2 **FSS:** OLD TOWN
Remarks: Holes in edges both rnwys. Use at own risk.

WISCASSET 3 SE
62 H28 (1) BL4 S5 F3 **FSS:** AUGUSTA

MARYLAND

ABERDEEN ARPK 1 SW
60 23 (1) S3 **FSS:** WASHINGTON
Remarks: P-line SE.

ALDINO See CHURCHVILLE

ANNAPOLIS
LEE 3 SW
30 28 (1) S5 F4 **FSS:** WASHINGTON
Remarks: P-line ESE, ant NNE.

AQUA-LAND SKYPARK See NEWBURG

BALTIMORE
EASTERN 3 SE
20 H21 (1) S5 F4 **FSS:** WASHINGTON (LC SO 6-3423)

FRIENDSHIP INTL See Section IV-A

MARTIN See Section IV-A

RUTHERFORD FLD 7 NW
500 21 (2) S1 F4 U-1
FSS: WASHINGTON (LC SO 6-3427)
Remarks: P-line NE, SE, SW.

BAR H SKYPORT See NORTH EAST

AIRPORT DIRECTORY

LTSVILLE 4 E
180 H44 (2) L4 U-1
FSS: WASHINGTON (LC DI 7-1442)
Remarks: Ruf offl bus only. Frequently clsd exper flights.
P-lines ENE, NNE, WSW.

VER See **SILESIA**

ANDYWINE
URTIS FLD 3 SW
200 2B (1) *L4 FSS: WASHINGTON
Remarks: P-line ENE, NNE, WSW.

TLER
INSLEY 1 SW
640 17 (1) *L4 FSS: WASHINGTON

BRIDGE 2 SE
20 H30 (1) *L4 S5 F4 U-1 FSS: SALISBURY

RROLL'S See **STEVENSVILLE**

STLE MARINA See **CHESTER**

CILTON
EXTON FARMS 3 SW
65 32 (2)

ESTER MARINA 1 NW
15 27 (1)

ESTERTOWN
ILL 1 N
70 30 (1) FSS: WASHINGTON
Remarks: P-line SW.

USSELL ARPK 7 NW
47 32 (1) L4 F3 FSS: WASHINGTON

IRCHTON
EEP CREEK 1 NE
10 30 (2) S1 F2
Remarks: P-line NW. Fee for multi-eng only.

IRCHVILLE
LDING 3 NE
400 22 (3) *L4 S5 F4 U-1 FSS: WASHINGTON
Remarks: P-line S. Rolling.

NTON
YDE FLD 2 SW
249 H32 (2) L4 S5 F4 U-1
FSS: WASHINGTON (LC DI 7-1442)

LEGE PARK 4 E
49 22 (2) *L4 F4 U-1
FSS: WASHINGTON (LC DI 7-1442)

SFIELD MUNI 3 E
4 H25 (1) L4 S1 F2 FSS: SALISBURY (LC 742-7324)
Remarks: 3500' strip avail. Soft-wet. Ctc SBY for lights after 2300.

CUMBERLAND
CUMBERLAND MUNI 2 S
790 H58 (3) BL4 S5 F4
FSS: MARTINSBURG (LC 722-6225)

MEXICO FARMS 3 S
610 25 (2) S5 F4
FSS: MARTINGSBURG (LC 722-6225)
Remarks: P-line S. Rgt tfc rnwy 1 and 6.

CURTIS FLD See **BRANDYWINE**

DAVIS See **LAYTONSVILLE**

DEEP CREEK See **CHURCHTON**

EASTERN See **BALTIMORE**

EASTON MUNI 2 N
66 H40 (2) BL4 S5 F4, JP1 FSS: SALISBURY
Remarks: VFR opers only.

ELKTON
LOVETT 3 NE
140 21 (3) S5 F2 FSS: MILLVILLE
Remarks: Clsd to heavy acft when wet. Rolling.

ELLICOTT
TURF VALLEY 4 NW
508 19 (1) F4 U-1 FSS: WASHINGTON

FALLSTON 1 S
445 20 (1) S3 F4 FSS: WASHINGTON
Remarks: Gliders.

FARMINGTON 2 SE
445 17 (2) S5 F2
Remarks: Bndry lgts avbl emgcy. P-line N. NE SW rnwy 15,000 lbs.

FREDERICK MUNI *IFR* 2 E
304 H38 (2) BL4 S5 F4 U-1
FSS: MARTINSBURG (LC 662-4987)
Remarks: N/S rnwy 30,000 lbs., NE SW 15,000 lbs.

FREEWAY See **MITCHELLVILLE**

FRIENDLY
ROSE VALLEY 1 E
150 H30 (1) L4 S5 F4 U-1
FSS: WASHINGTON (LC DI 7-1442)
Remarks: Rgt tfc SW.

FRIENDSHIP INTL See **BALTIMORE, FRIENDSHIP INTL** in Section IV-A

GARRETT CO See **OAKLAND**

GAITHERSBURG
MONTGOMERY CO *IFR* 2 NE
540 H31 (1) BL4, 7 S5 F4 U-1
FSS: WASHINGTON (DL)
VFR ADV: For APP CON, DEP CON See BALTIMORE FRIENDSHIP INTL in Section IV-A
Remarks: P-lines SE, SW. Land NW rnwy 31. Use rgt tfc patn.

AIRPORT DIRECTORY

GILL See **CHESTERTOWN**

GOLDEN HILL 2 SW
6 27 (2) S2 F2, 4
Remarks: P-lines N, E, S, W.

HAGERSTOWN MUNI *IFR* 4 N
704 H54 (2) BL2, 4 S5 F5, JP1 U-1
FSS: MARTINSBURG (LC 733-1374)
VFR ADV: For APP CON, DEP CON See WASHINGTON/ DULLES INTL, DISTRICT of COLUMBIA in Section IV-A

HEXTON FARMS See **CECILTON**

HYDE FLD See **CLINTON**

INDIAN HEAD
MARYLAND 4 E
170 32 (2) L4 S5 F4 U-1 FSS: WASHINGTON
Remarks: Rnwy lgts oper dusk-midngt.

KENTMORR ARPK See **STEVENSVILLE**

LAUREL
SUBURBAN 2 SE
140 H26 (1) L4 S5 F4 U-1 FSS: WASHINGTON

LAYTONSVILLE
DAVIS 2 NW
640 22 (1) *L2 S5 F4 FSS: WASHINGTON

LEE See **ANNAPOLIS**

LOVETT See **LOVETT**

MARTIN See **BALTIMORE, MARTIN** in Section IV-A

MARYLAND See **INDIAN HEAD**

MEXICO FARMS See **CUMBERLAND**

MITCHELLVILLE
FREEWAY 2 NW
160 H26 (1) L4 S4 F4 FSS: WASHINGTON
Remarks: Rgt tfc rnwy 36.

MONTGOMERY CO See **GAITHERSBURG**

NEWBURG
AQUA-LAND SKYPARK 1 SW
20 27 (1) F2 U-1 FSS: WASHINGTON
Remarks: P-line E.

NORTH EAST
BAR H SKYPORT 1 N
120 21 (1) S5 F4 FSS: MILLVILLE
Remarks: P-line S.

OAKLAND
GARRETT CO 2 NE
2933 H25 (1) F4 FSS: MORGANTOWN
Remarks: Fee when no fuel purchased.

OCEAN CITY 2 SW
12 H34 (1) L4 F4 U-1 FSS: SALISBURY
Remarks: 1600' sod overrun NW end.

PARK HALL Adj N
96 22 (1) S3 F2 FSS: WASHINGTON
Remarks: P-line S.

PINEY POINT 1 NW
10 H11 (1) *L4 S3 F4 U-1 FSS: WASHINGTON
Remarks: 3100' strip avbl.

QUINN See **WHITE MARSH**

ROCK POINT ARPK 1 N
20 27 (1) U-1 FSS: WASHINGTON
Remarks: P-line S.

ROSE VALLEY See **FRIENDLY**

RUSSELL ARPK See **CHESTERTOWN**

RUTHERFORD FLD See **BALTIMORE**

SALISBURY-WISCOMICO CO *IFR* 4 SE
52 H50 (3) BL4 S5 F4 U-1
FSS: SALISBURY
Remarks: Single wheel load 30,000 lbs. All rnwys.

SHADY SIDE 2 SW
10 20 (2) S3 FSS: WASHINGTON
Remarks: P-line SW, S.

SILESIA
BOWER 2 N
90 H16 (1) BL4 U-1
FSS: WASHINGTON (LC DU 7-1...
Remarks: Tie downs only.

STEVENSVILLE
CARROLL'S 3 SE
10 18 (1) F2 FSS: WASHINGTON

KENTMORR ARPK 1 S
12 25 (1) S1 F2 FSS: WASHINGTON
Remarks: P-line E.

SUBURBAN See **LAUREL**

TINSLEY See **BUTLER**

TURF VALLEY See **ELLICOTT**

WESTMINSTER 3 N
780 25 (2) *L4 S3 F4 U-1 FSS: WASHINGTON
Remarks: Rgt tfc S. Glider activity week ends and holidays

WHITE MARSH
QUINN 2 NE
200 18 (1) S3 F2 FSS: WASHINGTON (LC SO 3-...

AIRPORT DIRECTORY

MASSACHUSETTS

AGAWAM
BOWLES-AGAWAM 2 SW
190 H28 (2) L4 S5 F4 U-1 FSS: WINDSOR LOCKS
Remarks: Rnwy lgts after 2:00 AM by prior request.

ANDREWS AVIATION See SPENCER

BARNSTABLE MUNI See HYANNIS, BARNSTABLE MUNI in, Section IV-A

BARRE
HILLER 4 SW
599 35 (1) *L4 S3 F2 FSS: WORCESTER

BEVERLY MUNI *IFR* 3 NW
108 H50 (3) BL4, *11 S5 F4 U-1
FSS: BOSTON (LC WA 7-1355)
VFR ADV: For APP CON DEP CON See BOSTON LOGAN INTL in Section IV-A
Remarks: REIL 16 & 34 by prior req.

BOSTON LOGAN INTL See Section IV-A

BOWLES-AGAWAM See AGAWAM

BRAINTREE MUNI 2 W
124 21 (1) FSS: BOSTON (LC LO 7-0015

CAPE COD See MARSTONS MILLS

CHATHAM MUNI *IFR* 2 W
72 H30 (1) BL4 S5 F4 U-1 FSS: NANTUCKET (DL)
VFR ADV: OTIS APP CON 118.2; DEP CON 124.7

CHESTNUT BROOKFIELD 1 W
640 16 (1) FSS: WORCESTER

EDGARTOWN
KATAMA ARPK 2 S
20 40 (4) S1 F4 U-1 FSS: NANTUCKET (DL)
Remarks: P-line NE, SE.

FALL RIVER MUNI 4 NE
192 H39 (2) BL4 S3 FSS: NANTUCKET (DL)

FALMOUTH
FALMOUTH 4 NE
40 23 (1) TPA: Max 700' MSL FSS: NANTUCKET
Remarks: Hvy jet tfc in area. Rgt tfc rnwy 7.

FALMOUTH-COONAMESSETT 6 NE
100 37 (2) S3 F4 TPA: 700 MSL
FSS: NANTUCKET (DL)
Remarks: Ctn when ceiling 3000' or below & visibility 5 mi or less; hvy jet tfc vcnty otis AFB. Rgt tfc rnwy 16 & 23.

FITCHBURG MUNI *IFR* 2 SE
350 H45 (2) BL4 S3 F4 U-1
FSS: BOSTON (LC LO 7-0015)
VFR ADV: For APP CON, DEP CON See BEDFORD/ HANSCOM FLD in Section IV-A
Remarks: P-line NW.

GARDNER MUNI 2 SW
946 H30 (1) BL4 S3 F2 U-1 FSS: WORCESTER

GREAT BARRINGTON 2 SW
726 27 (2) *L4 S5 F4 FSS: POUGHKEEPSIE
Remarks: Lgts prior request after 11:00 PM. Rnwy 5-23 permly clsd.

HANSCOM FLD See BEDFORD, HANSCOM in Section IVA

HARRIMAN See NORTH ADAMS

HATFIELD-PILGRIM FLD 3 N
126 31 (2) S5 F4 U-1 FSS: WINDSOR LOCKS

HAVERHILL
HAVERHILL 2 E
125 20 (1) S5 F2 U-1 FSS: BOSTON
Remarks: P-line NW, maj airframe rprs only.

HAVERHILL-RIVERSIDE 2 E
20 H17 (1) S5 F2 U-1 FSS: BOSTON

HILLER See BARRE

HOPEDALE-DRAPER 2 SE
269 H32 (1) S5 F4 FSS: WORCESTER

HYANNIS BARNSTABLE MUNI See Section IVA

KATAMA ARPK See EDGARTOWN

LAFLEUR See NORTHAMPTON

LAWRENCE MUNI *IFR* 2 NE
153 H50 (2) BL4, 6 S5 F4 U-1
FSS: BOSTON (LC 683-1412)
VFR ADV: For APP CON DEP CON See BEDFORD HANSCOM FLD in Section IV-A.

LOGAN INTL See BOSTON, LOGANINTI in Section IV-A

MANSFIELD MUNI 2 SE
124 H30 (1) B*L4 S5 F4 U-1 FSS: BOSTON

MARLBORO 2 E
280 H17 (1) S5 F4 U-1 FSS: BOSTON
Remarks: 40' structure apch rnwy 31.

MARSHFIELD 2 E
9 26 (1) *L4 S3 F4 U-1 FSS: BOSTON

MARSTONS MILLS
CAPE COD 6 NW
100 26 (2) S3 F2 FSS: NANTUCKET
Remarks: P-line SW.

MARTHA'S VINEYARD 4 S
68 H50 (3) BL4 S3 F4 U-1 FSS: NANTUCKET (DL)
VFR ADV: Otis APP CON 118.2; DEP CON 124.7
Remarks: Antenna pole SE.

METROPOLITAN See PALMER

AIRPORT DIRECTORY

MIDDLEBORO
N MIDDLEBORO ARPK 4 NW
75 26 (1) *L4 S3 F2 FSS: NANTUCKET
Remarks: P-line W.

MILLBURY
WINDLE 3 SW
750 22 (2) S3 F4 FSS: WORCESTER
Remarks: Attended Apr thru Nov.

MONTAGUE
TURNERS FALLS 4 N
357 H30 (1) S5 F4 U-1
Remarks: Birds on arpt.

NANTUCKET MEML See Section IV-A

NEW BEDFORD MUNI See Section IV-A

NEWBURYPORT
PLUM ISLAND 2 SE
15 H25 (2) *L4 S5 F2 FSS: BOSTON
Remarks: P-line NW. 2800' strip avail.

NORTH ADAMS
HARRIMAN 3 W
651 H28 (1) L4 S5 F4 U-1 FSS: ALBANY

NORTHAMPTON
LA FLEUR 1 NE
120 23 (2) *L4 S5 F4 U-1 FSS: WINDSOR LOCKS
Remarks: Rgt tfc W.

N MIDDLEBORO ARPK See MIDDLEBORO

NORWOOD MEML *IFR* 2 E
50 H40 (2) BL4 S5 F4, JP1 U-1
FSS: BOSTON (LC 762-6644)
VFR ADV: For APP CON DEP CON See BOSTON/LOGAN INTL in Section IV-A.

OAK BLUFFS 1 SW
40 22 (2) S3 F4 U-1 FSS: NANTUCKET
Remarks: P-lines W, SW.

ORANGE MUNI *IFR* 1 SE
555 H50 (3) L4 S1 F4 U-1 FSS: WORCESTER
Remarks: Rt tfc rnwys 4, 19 & 31.

PALMER
METROPOLITAN 4 N
410 22 (1) *L4 S3 F4 U-1 FSS: WINDSOR LOCKS

PITTSFIELD MUNI *IFR* 2 SW
1170 H35 (1) BL4 S5 F4 U-1 FSS: ALBANY

PLUM ISLAND See NEWBURYPORT

PLYMOUTH MUNI 4 SW
149 H30 (1) BL 4 S5 F3 U-1 FSS: BOSTON

PROVINCETOWN MUNI 2 NW
8 H35 (1) BL4 S3 F4 FSS: NANTUCKET

SOUTHBRIDGE MUNI *IFR* 1 N
697 H35 (1) BL4 S5 F4 FSS: WORCESTER
Remarks: 3100' sod overrun N end N/S rnwy.

SPENCER
ANDREWS AVIATION 3 NE
1040 17 (1) FSS: WORCESTER (LC PL 5-6[illegible]
Remarks: Ruf.

STERLING 2 SW
450 28 (1) S5 F4 FSS: BOSTON (LC LO 7-[illegible]
Remarks: P-line SE.

TAUNTON MUNI *IFR* 3 SE
40 H30 (1) BL4 S3 F3 U-1 FSS: NANTUCKET
Remarks: P-line NNE. Ruf.

TEWKSBURY
TEW-MAC 2 SE
90 H19 (1) *L4 S5 F4 FSS: BOSTON
Remarks: P-lines S.

TURNERS FALLS See MONTAGUE

WESTBORO 2 NW
310 17 (4) S1 F2 FSS: WORCESTER
Remarks: Unmarked stack SSE.

WEST BROOKFIELD 2 SE
650 20 (1) F4 U-1

WESTFIELD-BARNES MUNI See Section IVA-A

WINDLE See MILLBURY

WORCESTER MUNI

MICHIGAN

ABRAMS MUNI See GRAND LEDGE

ADRIAN MUNI 3 SW
800 H32 (1) BL4 S5 F4

AERO ACRES See FENTON

AIR PORT HOPE See PORT HOPE

ALLEGAN
PADGHAM FLD 2 E
701 26 (1) L4 S3 F2 FSS: SAGINAW
Remarks: Lgts dusk to 12 PM.

ALLEN'S See PONTIAC

ALMA MUNI 1 NE
750 H28 (1) BL4 F4 U-1 FSS: SAGINAW
Remarks: Rgt tfc W.

ALMONT 1 NW
860 22 (2) *L4 S5 F2 FSS: DETROIT

AIRPORT DIRECTORY

.PENA
PHELPS-COLLINS *IFR* 6 W
689 H80 (3) *L6 S5 F4 FSS: PELLSTON
Remarks: Deer hazard all rnwys. Bcn on prior request.

IN ARBOR
NN ARBOR MUNI 3 S
835 H35 (1) BL4 S5 F4 U-1 FSS: DETROIT
Remarks: Shoulders soft when wet.

OUNG FLD 6 W
867 30 (2) L4 S5 F4 U-1 FSS: DETROIT
Remarks: P-line SW. Lgts on prior request after 2400.

TRIM COUNTY See BELLAIRE

LANTA 1 SE
875 22 (3) S1 F2 U-1 FSS: PELLSTON

GRES AIRFLD 1 NW
590 20 (2) S1 F2 FSS: SAGINAW

SABLE RANCH See GAYLORD

TRAIN Adj SW
620 19 (1)
Remarks: Hazardous not maintd.

STIN LAKE See KALAMAZOO

)CA
EBENSEE 2 SE
726 22 (1)
Remarks: P-line 50' W of W end.

) AXE
URON CO MEML 1 SE
763 H35 (1) BL4 S5 F4 U-1 FSS: SAGINAW
Remarks: 2500' strip avail. Rnwy 3 threshold displaced 500 NE.

ER'S FLD See PORT HURON

STOW See MIDLAND

TLE CREEK KELLOGG REGIONAL See Section IV-A

DWIN MUNI 1 SE
820 31 (3) F2 U-1 FSS: MUSKEGON
Remarks: P-line E & W.

CITY
LEMENTS MUNI 3 S
599 H32 (2) BL4 S3 F4 U-1
FSS: SAGINAW (LC OX 5-6621)

CH See CHARLOTTE

VER ISLAND See ST JAMES

ENSEE See AVOCA

BELLAIRE
ANTRIM COUNTY *IFR* 1 NE
614 53 (2) BL4 F4 U-1 FSS: TRAVERSE CITY
Remarks: P-line SE.

BELLVILLE
LARSEN ARPK 3 SW
692 16 (1) S5 F2 FSS: DETROIT (LC PA Z-8790)
Remarks: P-line N. Rgt tfc pat strip 18.

BENTON HARBOR
ROSS FLD *IFR* 1 NE
642 H50 (3) BL4 S1 F4 U-1 FSS: SOUTH BEND (DL)
VFR ADV: For APP CON, DEP CON See SOUTH BEND ST JOSEPH CO, INDIANA in Section IV-A

BERZ See BIRMINGHAM

BIG BEAR See TOPAZ

BIG BEAVER See TROY

BIG RAPIDS
ROBEN-HOOD 1 NW
928 H35 (1) BL4 S5 F4 FSS: MUSKEGON
Remarks: 960 overrun NW end. Fence NE.

BIRMINGHAM
BERZ 1 E
730 H39 (2) L4 S5 F4 U-1 FSS: DETROIT (DL)
Remarks: P-line N. Rnwy lgts on prior request after 12 PM by flgt plan or telephone call rcvd before 7 PM.

BISHOP See FLINT, BISHOP in Section IV-A

BLACK RIVER RANCH See ONAWAY

BLANEY PARK Adj NW
710 22 (4) F2 FSS: MARQUETTE
Remarks: Road crosses NNW SSE strip at S end.

BOOTHBY FLD See LAWRENCE

BOYNE CITY MUNI 1 SE
657 32 (2) S1 F4 FSS: PELLSTON
Remarks: Twr SW. Strips plowed-winters.

BOYNE FALLS
BOYNE MOUNTAIN Adj W
630 42 (1) F4 FSS: PELLSTON
Remarks: P-line N.

BOYNE MOUNTAIN See BOYNE FALLS

BRANCH CO MEML See COLDWATER

BRANCH SAFF'S See WEST

BRIGHTON
HYNE FLD 3 N
1020 19 (1) F2

BROOKS FLD See MARSHALL

AIRPORT DIRECTORY

BRYON CENTER
SOUTH KENT 2 N
700 22 (1) S1 F2 FSS: SAGINAW (LC OX 5-6621)
Remarks: P-line NW.

CADILLAC MUNI 2 NW
1305 H37 (1) BL4 S5 F4 U-1 FSS: TRAVERSE CITY

CAMPBELL MUNI See INDIAN RIVER

CAPITAL CITY See LANSING, CAPITAL CITY in Section IV-A

CARO MUNI 2 SW
700 H30 (1) L4 F2 FSS: SAGINAW
Remarks: P-line SE.

CASS CO MEML See DOWAGIAC

CHARLEVOIX 1 SW
658 H35 (1) BL4 S1 F4 U-1 FSS: PELLSTON
Remarks: Pole SE.

CHARLOTTE
BEACH 2 NE
880 H30 (1) F2 FSS: LANSING
Remarks: P-lines NW.

CHEBOYGAN
MARX FLD 1 NE
590 27 (2) F2 FSS: PELLSTON
Remarks: P-line S. Fuel avbl spring, summer only.

CHESANING 7 W
639 24 (4) L4 S3 F2 FSS: LANSING
Remarks: P-line S, N, W.

CITY See KALKASKA

CITY-COUNTY See FRANKFORT

CLARE MUNI 1 E
840 H25 (1) BL4 S5 F4 FSS: SAGINAW
Remarks: P-line S, W, SE.

CLEMENTS MUNI See BAY CITY

CLIO
WESTPORT 3 SW
690 19 (3) S5 F2 FSS: LANSING (LC 2-9237)
Remarks: P-line N.

COLDWATER
BRANCH CO MEML 2 SW
956 H35 (1) BL4 S3 F4 U-1 FSS: JACKSON
Remarks: P-line W. TV antenna NW.

CROSWELL CITY 1 W
732 25 (1) F2 FSS: SAGINAW
Remarks: P-lines S.

CRYSTAL FALLS
IRON CO 5 SE
1340 H37 (1) L4 FSS: MARQUETTE

PHELANS RESORT 8 NE
1400 17 (1) *L F2 FSS: MARQUETTE

CUSTER See MONROE

DALTON'S See FLUSHING

DAVIS See EAST LANSING

DECKERVILLE
NAUMAN 1 S
795 24 (1) L4 S1 F4 FSS: SAGINAW
Remarks: P-line E.

DETROIT
DETROIT CITY See Section IV-A
METROPOLITAN WAYNE CO See Section IV-A
WILLOW RUN See Section IV-A

DICKINSON See ST JOHNS

DOWAGIAC
CASS CO MEML 1 NW
750 H30 (1) BL4 F4 U-1 FSS: SOUTH BEND
Remarks: S, SW blkd. TV ant NE. Rnwy 14-32 clsd tkofs.

DRUMMOND ISLAND Adj S
670 28 (2) S2 F4 U-1 FSS: SAULT STE MARIE
Remarks: Rolling. Clsd winters except ski equipped acft.

DUPONT-LAPEER See LAPEER

EAST JORDAN 2 SE
640 26 (2) S3 F2
Remarks: P-line N, E.

EAST LANSING
DAVIS 3 N
850 25 (3) *L4 S5 F4 FSS: LANSING (LC 2-9237)
Remarks: P-line E.

EAST TAWAS
IOSCO COUNTY 1 N
604 35 (1) F4

EASTPORT
TORCHPORT 3 S
640 25 (2) F2 FSS: TRAVERSE CITY
Remarks: P-line E, W.

EMMET COUNTY See PELLSTON

EMPIRE 2 SE
920 27 (2) S3 F2 FSS: TRAVERSE CITY

ESCANABA MUNI *IFR* 2 SW
600 H50 (2) BL4, 11 S5 F4 U-1
FSS: MARQUETTE
Remarks: REIL rnwys 9, 27.

AIRPORT DIRECTORY

ART MUNI 1 SW
1020 H22 (1) L4 F2 FSS: TRAVERSE CITY
Remarks: Lgts on req after 11 PM.

INVILLE
OBLES 4 SW
650 20 (4 S5 F2 U-1
Remarks: P-line NW.

TON
ERO ACRES 4 SW
1040 25 (1) S3 F2 FSS: LANSING

T ROCK
AN-BAR 1 NE
596 39 (1) S5 F2 FSS: DETROIT
Remarks: P-line E. Rgt tfc W, SW.

T BISHOP See Section IV-A

SHING
ALTON'S 2 E
735 26 (2) F2 U-1 FSS: LANSING (LC 2-9237)
Remarks: P-line N.

D See IRON MOUNTAIN

LERVILLE
EWTON FLD 3 SW
925 22 (2) S3 F2 FSS: LANSING
Remarks: P-line N.

NKFORT
TY-COUNTY 2 SE
650 H27 (1) L4 F4 U-1 FSS: TRAVERSE CITY

SER
KINLEY 1 NW
620 H24 (1) L4 S5 F4 U-1 FSS: DETROIT (DL)
Remarks: P-line SE, open to lgt acft only during spring. Lgts oper dusk-midnight, thereafter on prior req.

MONT MUNI 2 SW
1300 H35 (1) BL4 S5 F4 U-1 FSS: MUSKEGON

LORD
SABLE RANCH 5 SE
1350 33 (1) FSS: PELLSTON

SEGO COUNTY 1 SW
1335 H35 (1) BL4 S5 F4 U-1 FSS: PELLSTON
Remarks: P-line NE.

AN FLD See VERMONTVILLE

OWIN MUNI 1 SE
1780 35 (4) BL2 S3 F2 FSS: SAGINAW (DL)

ES
SLER FLD Adj SW
1321 16 (1) S3 F2 FSS: JACKSON
Remarks: P-line N.

EBIC COUNTY See IRONWOOD

GOULD CITY 1 SW
750 25 (1)

GRAND HAVEN MEML *IFR* 2 SE
603 H37 (2) BL2 S5 F4 FSS: MUSKEGON
VFR ADV: For APP CON DEP CON, See MUSKEGON-MUSKEGON-COUNTY in Section IV-A
Remarks: TV antenna NW.

GRAND LEDGE
ABRAM MUNI 1 NE
844 25 (2) S3 F2 FSS: LANSING (LC 2-9237)
Remarks: P-lines S, W.

GRAND RAPIDS
GRAND RAPIDS-KENT CO See Section IV-A

SOUTH KENT 2 NE
700 22 (1) S1 F2 FSS: SAGINAW
Remarks: P-line NW. Irregularly attended.

GRANDVILLE
SHOEMAKER FLD 2 SE
650 22 (1)

GRAYLING AAF 1 NW
1152 H50 (2) BL2 F2 FSS: TRAVERSE CITY
Remarks: Clsd winter months. Open civil aircraft.

GREEN LAKE See INTERLOCHEN

GREENVILLE 2 S
855 H30 (1) L4 S5 F4 U-1 FSS: SAGINAW

GREGORY
RICHMOND 1 SE
920 24 (2) S1 F2 FSS: JACKSON
Remarks: P-line NW, E.

GULLIVER 1 S
626 34 (2) S1 FSS: MARQUETTE
Remarks: P-line N.

HAINES See THREE RIVERS

HANLEY FLD See MUNISING

HARBOR SPRINGS 3 E
700 20 (2) L2 S3 F4 U-1 FSS: PELLSTON
Remarks: P-line NW, E. 500′ overrun E end, 100′ overrun W end. Attended summers.

HARRISON 2 NW
1140 33 (3) F2 FSS: SAGINAW

HARRISVILLE 1 NW
675 15 (2)

HARSENS ISLAND On Island
580 25 (1) *L4
Remarks: Minor acft repairs.

AIRPORT DIRECTORY

HART-SHELBY 4 SE
910 H18 (1) FSS: MUSKEGON
Remarks: SE end NW. SE strip soft-wet.

HASTINGS MUNI 3 NW
813 H30 (1) L4 S5 F4 FSS: SAGINAW

HESSEL 2 NE
760 28 (2) FSS: SAULT STE MARIE

HILLMAN 2 NW
850 26 (2) FSS: PELLSTON

HILLSDALE 2 E
1182 H32 (1) BL4 S3 F4 U-1 FSS: JACKSON

HOLLAND
PARK TOWNSHIP 3 NW
612 26 (2) *L4 S5 F4 U-1 FSS: MUSKEGON
Remarks: P-line NE, SE.

HOMES ACRES SKY RANCH See **LAKE CITY**

HOUGHTON
HOUGHTON COUNTY MEML *IFR* 4 NE
1091 H52 (2) BL4 F4 FSS: HOUGHTON on Fld

HOUGHTON SANDS 2 SE
605 40 (2) S3 F4

HOUGHTON LAKE
ROSCOMMON CO 5 NE
1150 35 (3) L4 S5 F4 U-1 FSS: TRAVERSE CITY
Remarks: P-line SW.

HOUGHTON LAKE HEIGHTS
HOUGHTON LAKE STATE 1 W
1150 27 (2) S1 FSS: TRAVERSE CITY
Remarks: Twr NNW.

HOWELL
LIVINGSTON CO 3 NW
943 18 (2) L4 S3 FSS: DETROIT
Remarks: P-line N.

HURON CO MEML See **BAD AXE**

HYNE FLD See **BRIGHTON**

INDIAN RIVER
CAMPBELL MUNI 1 SE
602 30 (2) FSS: PELLSTON

INTERLOCHEN
GREEN LAKE 3 S
880 30 (2) S1 FSS: TRAVERSE CITY (LC WI 7-5056)

IONIA COUNTY 3 S
810 H24 (1) BL2 S1 F2 FSS: LANSING
Remarks: P-lines SW, W.

IOSCO COUNTY See **EAST TAWAS**

IRON CO See **CRYSTAL FALLS**

IRON MOUNTAIN
FORD 7 NW
1147 H48 (2) BL4 S5 F4 U-1 FSS: MARQUETTE
Remarks: Threshold displaced 350' S end rnwy 1-19.

IRONWOOD
GOGEBIC COUNTY 4 NE
1246 H46 (2) BL4 S5 F4 U-1 FSS: HOUGHTON
Remarks: Unlgtd hill S.

JACKSON REYNOLDS MUNI See Section IV-A

JEWETT See **MASON**

JONESVILLE 3 SW
1070 20 (2) S1 F2 FSS: JACKSON
Remarks: P-line NW.

KALAMAZOO
AUSTIN LAKE 7 SE
860 26 (2) S5 F4 U-1 FSS: JACKSON (LC ST 4-5641)

KALAMAZOO MUNI See Section IV-A

KALKASKA
CITY Adj SW
1030 38 (1) FSS: TRAVERSE CITY
Remarks: Twr N.

KELLOGG REGIONAL See **BATTLE CREEK, KELLOGG REGIONAL** in Section IV-A

KIRSCH MUNI See **STURGIS**

KUNTSMAN See **ROMEO**

LA PEER
DUPONT-LA PEER 2 NE
844 H25 (4) *L4 S5 F4 U-1 FSS: LANSING
Remarks: 3800' strip avbl.

LA SALLE
PRICE FLD 4 SW
606 20 (1) F2
Remarks: P-line S.

LADA See **PETERSBURG**

LAKE CITY
HOMES ACRES SKY RANCH 2 SE
1290 26 (2) L S5 F2 FSS: TRAVERSE CITY
Remarks: P-line W.

LAKEVIEW 1 NE
970 25 (3) L4 S1 F2 FSS: SAGINAW
Remarks: P-lines N oil derricks. N-S & NW-SE strip avbl.

LAMBERTVILLE
WAGON WHEEL 2 SW
670 29 (2) B S5 F4
Remarks: P-lines N, S.

LANSING CAPITAL CITY See Section IV-A

AIRPORT DIRECTORY

RSEN ARPK See BELLVILLE

WRENCE
-OOTHBY FLD 1 E
695 21 (3) F2
Remarks: P-lines NE, SE, SW, W.

#TON
.ARKS FLD 1 N
- 770 25 (3) S3 F2 FSS: JACKSON
Remarks: P-line E, ENE, WSW, W, WNW.

PERT FLD See RIVERDALE-VESTABURG

INGSTON CO See HOWELL

;T CREEK RANCH See LUZERNE

:E COUNTY See NEWBERRY

)INGTON
ASON COUNTY 1 NE
642 H35 (1) BL4 F4 U-1 FSS: MUSKEGON
Remarks: Twr SW.

:ERNE
OST CREEK RANCH 2 NE
!090 25 (3) S1 F2 FSS: TRAVERSE CITY
Remarks: Skis only winter months.

:KINAC COUNTY See ST IGNACE

KINAW CITY MUNI 4 S
700 22 (2) S1
Remarks: Rolling, ruf.

OMB See MT CLEMENS

CELONA 1 N
1130 30 (2) FSS: TRAVERSE CITY
Remarks: P-line W.

ISTEE COUNTY-BLACKER 4 NE
613 H50 (1) BL4 S3 F4 U-1 FSS: TRAVERSE CITY

ISTIQUE
HOOLCRAFT COUNTY 3 NE
578 H30 (1) L4 S3 F4 FSS: MARQUETTE
Remarks: P-line S.

CELLUS
:L-VILLE 3 NW
900 20 (1)

NE CITY 4 W
516 21 (2) S5 F2 FSS: DETROIT
Remarks: Ruf, P-line NW, NE.

(S FLD See LAWTON

.ETTE 1 N
134 24 (2) BL4 S1 F2 FSS: SAGINAW
Remarks: P-line W, NW. Fence N.

MARQUETTE COUNTY *IFR* 7 W
1419 H50 (2) BL4 F4 FSS: MARQUETTE on Fld
VFR ADV: SAWYER APP CON 119.1 122.5R DEP CON 119.1

MARSHALL
BROOKS FLD 1 S
950 H30 (1) BL4 S5 F4 U-1 FSS: JACKSON
Remarks: P-line W.

MARSHALL See NEWPORT

MARX FLD See CHEBOYGAN

MASON
MASON COUNTY See LUDINGTON

JEWETT 1 SE
920 26 (2) S1 F2 FSS: LANSING (LC 2-9237)
Remarks: P-line W.

MASS
NIKKILA FARMS 5 SE
1100 20 (1) FSS: HOUGHTON
Remarks: Skis winters. Use rnwy only.

MAULE FLD See NAPOLEON

Mc ENNAN See YPSILANTI

Mc KINLEY See FRASER

MECOSTA 2 W
1022 16 (2)
Remarks: P-line SW.

MEL-VILLE See MARCELLUS

MENOMINEE COUNTY *IFR* 1 NW
621 H51 (3) BL4, 11 F4 FSS: GREEN BAY
Remarks: Unlgtd antenna S. REIL rnwy 14.

METROPOLITAN WAYNE CO See DETROIT, METROPOLITAN WAYNE CO in Section IV-A

METTETAL See PLYMOUTH

MIDLAND
BARSTOW 3 NW
628 H30 (2) BL4 S1 F4 U-1
FSS: SAGINAW (LC OX 5-6621)

MILAN 3 SW
705 25 (2) F2 U-1 FSS: DETROIT
Remarks: P-line N. Soft when wet.

MILLER FLD See REED CITY

MIO MUNI 1 N
1050 30 (2) FSS: TRAVERSE CITY

MONROE
CUSTER 2 NW
614 H26 (1) BL4 S3 F4 U-1

AIRPORT DIRECTORY

MONTAGUE
OTTIGER 2 N
685 H26 (1) F2 FSS: MUSKEGON
Remarks: P-line N & SW. 3002' strip avbl.

MORENCI CITY 1 SW
767 21 (1)
Remarks: P-line E. Soft when wet.

MT CLEMENS
MACOMB 8 N
625 22 (2) S5 F2 FSS: DETROIT

MT PLEASANT MUNI 2 NE
755 H30 (1) BL4 S5 F4 U-1 FSS: SAGINAW
Remarks: 3600' strip avbl.

MUNISING
HANLEY FLD 3 SE
990 32 (1) F4 FSS: MARQUETTE

MUSKEGON CO See Section IV-A

NAN-BAR See FLAT ROCK

NAPOLEON
MAULE FLD 1 NW
972 29 (3) S5 F2 FSS: JACKSON (LC ST 4-9640)
Remarks: P-line N, S, W, NW.

NATIONAL See PLYMOUTH

NAUMAN See DECKERVILLE

NEW HUDSON Adj SW
947 30 (2) L4 S5 F4 U-1 FSS: DETROIT
Remarks: P-line N.

NEWAYGO 1 SE
785 32 (3) L4 S5 F2 U-1 FSS: MUSKEGON
Remarks: P-line S, SW.

NEWBERRY
LUCE COUNTY 4 SE
872 30 (2) FSS: SAULT STE MARIE
Remarks: P-line SW.

NEWPORT
MARSHALL 3 S
588 21 (2) S1 F2 FSS: DETROIT

NEWTON FLD See FOWLERVILLE

NIKKILA FARMS See MASS

NILES
TYLER MEML *IFR* 1 NE
743 H33 (2) BL4 S5 F4 U-1 FSS: SOUTH BEND
VFR ADV: For APP CON DEP CON See SOUTH BEND ST JOSEPH CO INDIANA in Section IV-A
Remarks: P-line SW. Unlgtd TV antenna SW.

NOBLES See FENNVILLE

NORTH FOX ISLAND Adj N
641 31 (1) *L U-1 FSS: PELLSTON

NORTHPORT
WOOLSEY MEML 3 N
625 26 (2) F2 U-1 FSS: TRAVERSE CITY

ONAWAY
BLACK RIVER RANCH 11 SW
880 26 (2) FSS: PELLSTON

ONAWAY 1 NE
830 21 (2) FSS: PELLSTON
Remarks: P-line W.

ONTONAGON COUNTY 3 SW
655 H30 (1) FSS: HOLGHTON

OSELKA See THREE OAKS

OTSEGO COUNTY See GAYLORD

OTSEGO-PLAINWELL See PLAINWELL

OTTIGER See MONTAGUE

OWOSSO CITY 2 E
740 H30 (1) BL4 S5 F4 U-1 FSS: LANSING

PADGHAM FLD See ALLEGAN

PARK TOWNSHIP See HOLLAND

PELLSTON
EMMET COUNTY *IFR* 1 NW
720 H54 (4) BL4 F4, JP1 U-1 FSS: PELLSTON (LC PA 2-5??)
Remarks: 500' E end E/W rnwy clsd; rnwy 9-27, 18-36 rstd to 14,000 lbs G T. Clsd ngts and winter operns 704' overrun NE end.

PENTWATER
PENT-AIR 4 SE
650 20 (2) F2
Remarks: P-lines E, W.

PETERSBURG
LADA 2 SE
680 26 (2) S3 F2
Remarks: P-line E.

PHELANS RESORT See CRYSTAL FALLS

PHELEPS-COLLINS See ALPENA

PLAINWELL
OTSEGO-PLAINWELL 1 N
727 21 (2) S5 F4 FSS: JACKSON
Remarks: P-line E.

PLYMOUTH
METTETAL 1 SE
700 H26 (1) L4 S5 F4 U-1
FSS: DETROIT (LC PA 2-5??)
Remarks: Fee P-line SW. Lgts prior req after 12 PM.

AIRPORT DIRECTORY

NATIONAL 4 SE
675 28 (4) *L4 S5 F4 FSS: DETROIT (LC PA 2-8790)
Remarks: Ditch S; wires NW.

NTIAC

ALLEN'S 5 NE
1020 24 (4) S5 F2 U-1 FSS: DETROIT (DL)
Remarks: P-line N, NW.

ONTIAC MUNI See Section IV-A

RT HOPE
IR PORT HOPE Adj S
593 20 (1) F2 FSS: SAGINAW
Remarks: P-line S.

RT HURON
AKER'S FLD 3 NW
565 27 (2) B S5 F2 FSS: DETROIT
Remarks: P-line NW; ruf bcn on request.

T CLAIR COUNTY MUNI 6 SW AOE
649 H39 (2) BL4 S5 F2 U-1 FSS: DETROIT
Remarks: Rnwy 22 apch blkdby trees.

ESQUE ISLE CO See ROGER CITY

ICE FLD See LA SALLE

ICKETT GROOMS FLD See SIDNAW

ED CITY
ILLER FLD 1 N
1055 H50 (2) BL4 S5 F4 U-1 FSS: MUSKEGON

YNOLDS MUNI See JACKSON, REYNOLDS MUNI in Section IV-A

HMOND See GREGORY

ERDALE-VESTABURG
IPPERT FLD 3 N
850 25 (1) S5 F2 U-1

BEN-HOOD See BIG RAPIDS

GERS CITY
RESQUE ISLE CO 1 SE
658 H30 (1) BL4 F2 FSS: PELLSTON
Remarks: TV ant N.

IEO
UNTSMAN 4 SE
680 26 (2) FSS: DETROIT
Remarks: P-line SW.

OMEO 2 E
730 36 (2) L4 S5 F4 U-1 FSS: DETROIT
Remarks: P-line N, soft when wet.

COMMON
OSCOMMON CO See HOUGHTON LAKE

ROSCOMMON 2 SE
1156 42 (2) FSS: TRAVERSE CITY

ROSS FLD See BENTON HARBOR

SAGINAW
SAGINAW MUNI 4 E
601 33 (3) B S5 F4 U-1 FSS: SAGINAW (LC OX 5-6621)
Remarks: P-line SE. Bcn on request.

TRI-CITY *IFR* 9 NW
667 H56 (3) BL4, 6 F4, JP5 U-1 FSS: SAGINAW on Fld

ST CLAIR COUNTY MUNI See PORT HURON

ST HELENS 1 SE
1153 26 (2) FSS: SAGINAW

ST IGNACE
MACKINAC COUNTY 2 NW
600 H32 (1) BL4 S5 F4 U-1 FSS: SAULT STE MARIE

ST JAMES
BEAVER ISLAND 4 SW
670 35 (2) F2

ST JOHNS
DICKINSON 2 SW
760 25 (1) L4 S1 U-1
Remarks: P-line S end. Lgts on request thru unicom.

SANDUSKY
SANDUSKY CITY 2 N
774 26 (1) L4 F4 U-1 FSS: SAGINAW
Remarks: Lgts oper dusk – 3:00 AM.

WILLIAMS FLD 5 S
772 22 (2) FSS: SAGINAW
Remarks: P-line adj N, S & E.

SAULT STE MARIE MUNI *IFR* 1 SW AOE
722 H50 (1) BL4 S3 F4 FSS: SAULT STE MARIE on Fld
VFR ADV: KINCHELOE APP CON 119.0 122.5R, DEP CON 119.0

SCHAEFER BROS See SPARTA

SCHOOLCRAFT COUNTY See MANISTIQUE

SEBEWAING 1 W
584 H22 (1) S1 F4 FSS: SAGINAW

SHOEMAKER FLD See GRANDVILLE

SIDNAW
PRICKETT GROOMS FLD Adj N
1373 16 (1) FSS: HOUGHTON

SIMAR 2 E
1170 20 (1) FSS: HOUGHTON

SKANEE CITY 1 S
870 22 (2) FSS: HOUGHTON
Remarks: P-line SW, NW.

AIRPORT DIRECTORY

SOUTH BRANCH
TIMBERS SKY CAMP Adj NE
950 22 (2) S3 F2 FSS: SAGINAW
Remarks: P-line NW.

SOUTH HAVEN MUNI 4 S
663 H24 (1) B*L4 S5 F4 FSS: SOUTH BEND
Remarks: 3400' strip avbl.

SOUTH KENT
SOUTH KENT See BRYON CENTER

SOUTH KENT See GRAND RAPIDS

SPARTA
SCHAEFER BROS 4 SW
950 24 (1) F2 FSS: SAGINAW

SPARTA 2 SE
752 H24 (1) *L4 S5 F4 U-1
FSS: SAGINAW (LC OX 5-6621)
Remarks: P-line NW, W, 2500' strip avbl. Rnwy 6 threshold displaced 400'NE.

SPENCER FLD See WIXOM

STAMBAUGH Adj W
1622 20 (1) L4 S1 FSS: MARQUETTE
Remarks: Twr S. Lgts summer only.

STANDISH CITY Adj W
629 28 (1) FSS: SAGINAW
Remarks: P-line E.

STURGIS
KIRSCH MUNI 1 NW
924 H32 (1) BL4 S5 F4 FSS: SOUTH BEND
Remarks: P-line NE; 550' overrun NE end.

SUMPTER 3 SW
673 24 (2) F2

TECUMSEH 2 NE
815 H26 (1) BL4 S5 F3
Remarks: P-line W. Lgts on req after 2400.

THOMPSONVILLE 1 W
800 25 (2)
Remarks: P-line N.

THREE OAKS
OSELKA 3 SW
622 H30 (1) S3 F4 U-1

THREE RIVERS
HAINES *IFR* 2 NE
830 H28 (1) BL4 S5 F4 U-1 FSS: JACKSON
VFR ADV: For APP CON See BATTLE CREEK/KELLOGG REGIONAL in Section IV-A
Remarks: 3700' strip abvl.

TIMBERS SKY CAMP See SOUTH BRANCH

TOPAZ
BIG BEAR 2 S
1306 26 (2) S1 FSS: HOUGHTON
Remarks: P-line SW.

TORCHPORT See EASTPORT

TRAVERSE CITY MUNI *IFR* 2 SE
623 H52 (4) B*L4, 11 S5 F4
FSS: TRAVERSE CITY on File
Remarks: REIL rnwy 36. Fee for commercial acft.

TRI-CITY See SAGINAW

TROY
BIG BEAVER 3 SE
650 24 (2) S5 F2 U-1
Remarks: Ditch SW. P-lines E & N.

TYLER MEML See NILES

VERMONTVILLE
GEHMAN FLD 3 SE
890 21 (2) F2 FSS: LANSING

WAGON WHEEL See LAMBERTVILLE

WATERVLIET 1 NE
655 19 (2) F4
Remarks: 600' overrun S, 300' overrun N.

WAYLAND MUNI 1 N
740 22 (2) S3 F2 FSS: SAGINAW (LC OX 5-6621)
Remarks: P-line W.

WESLER FLD See GOBLES

WEST
BRANCH SAFF'S 5 SE
890 40 (3) F2 FSS: SAGINAW
Remarks: P-line S.

WESTPORT See CLIO

WHITE CLOUD Adj N
915 18 (2) FSS: MUSKEGON
Remarks: Twr SE; P-line SW.

WILLIAMS FLD See SANDUSKY

WILLOW RUN See DETROIT, WILLOW RUN in Section IV-A

WIXOM
SPENCER FLD 1 W
940 26 (2) *L4 S3 F4 FSS: DETROIT
Remarks: P-line N. Bcn on prior req. Rnwy 36 threshold displaced 320' N.

WOOLSEY MEML See NORTHPORT

YALE 1 SE
814 23 (2) S3 F4
Remarks: P-lines S & W.

AIRPORT DIRECTORY

UNG FLD See ANN ARBOR

SILANTI
lcENNAN 2 S
738 23 (4) L4 F4 U-1 FSS: DETROIT (LC PA 2-8790)
Remarks: P-line NE, E.

MINNESOTA

A
ARSON 1 NW
915 23 (1) F2 FSS: FARGO

KIN MUNI 1 NE
1204 26 (1) F2 FSS: HIBBING
Remarks: P-line E.

BERT LEA MUNI 2 N
1256 H38 (1) L4 S5 F4 U-1 FSS: MASON CITY

EXANDRIA MUNI *IFR* 2 SW
1425 H57 (2) BL4 F4 FSS: ALEXANDRIA on Fld

)KA CO See MINNEAPOLIS

PLETON MUNI 2 NE
1021 30 (3) F2 FSS: WATERTOWN
Remarks: P-line S.

TIN MUNI *IFR* 2 E
1237 H38 (1) BL4 S1 F4 U-1 FSS: ROCHESTER
VFR ADV For APP CON, See ROCHESTER MUNI in Section IV-A

CKUS MUNI Ad, NE
1335 26 (1) FSS: ALEXANDRIA
Remarks: P-lines E, S. Clsd winters.

NESVILLE MUNI Ad, SW
1018 25 (1) FSS: FARGO
Remarks: P-lines N, S.

TLE LAKE MUNI 1 NE
1365 29 (1) FSS: ALEXANDRIA
Remarks: Soft when wet.

DETTE INTNL 1 NW AOE
1083 H35 (1) BL4 S5 F4 FSS: HIBBING

TRAMI CO FLD See WASKISH

IDJI MUNI *IFR* 3 NW
1395 H57 (2) BL4 F5 FSS: HIBBING (DL)

SON
ENSON MUNI 2 W
1038 26 (1) L4 F2 FSS: ALEXANDRIA
Remarks: P-line SE.

ENSON See WHITE BEAR LAKE

FALLS MUNI 2 E
1232 26 (1) FSS: HIBBING

BIG FORK MUNI 2 N
1346 25 (1) F3 FSS: HIBBING
Remarks: P-line SE.

BLUE EARTH MUNI 3 S
1102 23 (2) L4 F4 FSS: MASON CITY

BOCKWITZ See HUMBOLDT
BOWSTRING TOWNSHIP See DEER RIVER

BRAINERD-CROW WING CO MUNI *IFR* 3 NE
1226 H50 (3) BL4 S5 F4 FSS: ALEXANDRIA
Remarks: N, S rnwy skis only winter months.

BREEZY POINT See PEQUOT LAKE

BROOTEN MUNI Ad, E
1305 26 (1) F2 FSS: ALEXANDRIA
Remarks: P-line NW. Fuel emgcy only.

CAMBRIDGE MUNI 1 SW
947 25 (1) F2 FSS: MINNEAPOLIS
Remarks: Fuel avbl by phone.

CANBY MUNI 1 W
1190 25 (1) F2 FSS: WATERTOWN

CARLETON See STANTON

CHISHOLM-HIBBING See HIBBING, CHISHOLM-HIBBING in Section IV-A

CLARISSA MUNI 2 SE
1308 26 (1) F2 FSS: ALEXANDRIA

CLOQUET MUNI 2 SW
1278 H32 (1) L4 F2 U-1 FSS: HIBBING

CONRAD FLD See WINONA

COOK MUNI 2 S
1330 22 (1) FSS: HIBBING

CROOKSTON
KIRKWOOD 4 N
896 30 (3) L4 S5 F4 U-1 FSS: GRAND FORKS

CRYSTAL See MINNEAPOLIS, CRYSTAL in Section IV-A

DEER RIVER
BOWSTRING TOWNSHIP 16 N
1374 25 (1) F2 FSS: HIBBING

DEER RIVER MUNI 1 N
1313 24 (2) FSS: HIBBING

DETROIT LAKES MUNI 1 W
1396 33 (3) S1 F4 FSS: FARGO
Remarks: P-lines N, S.

DILWORTH
MOORHEAD 2 SE
920 25 (1) F2

AIRPORT DIRECTORY

DODGE CENTER MUNI 1 SE
1299 23 (2) FSS: ROCHESTER

DULUTH
DULUTH INTL See Section IV-A

SKY HARBOR 4 SE AOE
609 21 (1) S3 F2 FSS: HIBBING (LC 2-7326)
Remarks: 1050′ overrun NW end.

DUNCAN AIRFLD See ISABELLA

ELBOW LAKE MUNI 1 SW
1205 26 (1) F2 FSS: ALEXANDRIA

EAST GULL LAKE 8 NW
1250 25 (1) F2

ELY 1 E
1425 24 (2) F2 FSS: HIBBING
Remarks: Hidden P-line SE end rnwy.

ERSKINE MUNI 2 NE
1241 25 (1) F2 FSS: GRAND FORKS

EVELTH-VIRGINIA MUNI *IFR* 3 SE
1385 H47 (3) BL4 S5 F4 U-1 FSS: HIBBING (DL)
Remarks: Threshold rnwy 9 displaced 475′ E. Use hard-surfaced areas.

FAIRMONT MUNI 2 E
1161 H40 (1) BL4 S5 F4 U-1 FSS: MASON CITY

FALLS INTL See INTERNATIONAL FALLS

FARIBAULT MUNI 3 NW
1054 H30 (1) BL4 S5 F4 U-1 FSS: ROCHESTER

FERGUS FALLS
MICHELSON MUNI 4 W
1185 H40 (1) BL4 S5 F4 U-1 FSS: ALEXANDRIA

FERTILE MUNI 1 NW
1137 24 (1) S1 F2 FSS: GRAND FORKS

FLEMING FLD See SOUTH ST PAUL, FLEMING FLD in Section IV-A

FLYING CLOUD See MINNEAPOLIS, FLYING CLOUD in Section IV-A

FLYNN'S See MONTICELLO

FOSSTON MUNI 1 NW
1270 23 (1) F2 FSS: GRAND FORKS
Remarks: P-line SW. 500′ overrun NW end.

GARRISON
MILLER 1 N
1264 26 (1) F2 FSS: ALEXANDRIA

GLENWOOD MUNI 3 E
1393 24 (2) F2 FSS: ALEXANDRIA

GRAND MARAIS-DEVIL TRACK 6 NW
1658 26 (1) S1 F2 FSS: HIBBING

GRAND RAPIDS
GRAND RAPIDS MUNI 2 SE
1320 H41 (1) BL4 S5 F4 U-1 FSS: HIBBING DL

OTIS LODGE 7 W
1350 26 (1) S3 F4 U-1 FSS: HIBBING
Remarks: Bcn on call.

GREENBUSH MUNI 1 SW
1070 26 (2) FSS: GRAND FORKS
Remarks: P-lines NW, SE.

HALLOCK 1 NE
820 20 (1) F2 FSS: GRAND FORKS
Remarks: P-line E. Unattended.

HECTOR MUNI 1 S
1082 25 (2) L4 F4 FSS: REDWOOD FALLS
Remarks: Water tower N. Lghts oper till midnight.

HENNING MUNI 1 S
1433 26 (1) F2 FSS: ALEXANDRIA

HEYWOOD GULL LAKE See NISSWA

HIBBING CHISHOLM-HIBBING See Section IV-A

HOLTORF See MAZEPPA

HUMBOLDT
BOCKWITZ Adj W
795 24 (1) S1 F2 FSS: GRAND FORKS
Remarks: P-line S.

INTERNATIONAL FALLS
FALLS INTL *IFR* 2 S ADE
1180 H50 (2) BL4 S5 F4 U-1 FSS: HIBBING DL
Remarks: Rnwy 4-22 clsd winter months.

ISABELLA
DUNCAN AIRFLD 3 NW
1920 25 (1) S3 F2 U-1 FSS: HIBBING

ISLE MUNI 1 NE
1271 23 (1) F2

JACKSON MUNI 2 N
1445 H25 (1) L4 S5 F4 U-1 FSS: REDWOOD FALLS

KIRKWOOD See CROOKSTON

KARLSTAD MUNI 1 W
1025 26 (1) FSS: GRAND FORKS
Remarks: P-line S.

LAKE BRONSON Adj NE
960 26 (3) F3 FSS: GRAND FORKS
Remarks: P-lines S, W, NW.

LAKE ELMO See ST PAUL

AIRPORT DIRECTORY

CASTER 1 N
916 26 (1) F2 FSS: GRAND FORKS
Remarks: P-line N.

SON See ADA

SUEUR MUNI 1 S
950 32 (2) F2 FSS: MINNEAPOLIS
Remarks: P-lines NE, SE. Unattended.

CHFIELD MUNI 1 NE
1116 28 (1) L4 S1 F3 FSS: REDWOOD FALLS

TLE FALLS MUNI 2 SE
1118 30 (2) F4 FSS: ALEXANDRIA
Remarks: P-line SE.

TLEFORK MUNI 2 NW
1145 23 (2) FSS: HIBBING

GVILLE MUNI 1 NE
1360 33 (1) F2 FSS: HIBBING
Remarks: P-line NW.

ERNE MUNI 2 S
1430 26 (1) FSS: HURON
Remarks: P-line S.

ISON MUNI 1 S
1086 30 (2) B S5 F2 FSS: WATERTOWN

KATO MUNI *IFR* 1 SE
1005 H37 (2) BL4 S5 F4 FSS: MINNEAPOLIS (DL)

LE LAKE
AVEN CAMP 3 NW
1050, 25 (1) F2
Remarks: Unattended. Use at own risk.

SHALL MUNI 1 W
1179 H31 (1) BL4 S3 F4 U-1 FSS: REDWOOD FALLS
Remarks: N/S & E/W rnwys skis only winter months.

ENCAMP See MAPLE LAKE

EPPA
ILTORF 2 SE
1140 20 (1) S3 F3

REGOR MUNI 1 N
1227 23 (2) S1 F2 FSS: HIBBING
Remarks: P-line NW.

ROSE-RIVERSIDE 1 NW
1215 34 (1) F2 FSS: ALEXANDRIA
Remarks: Twr SE.

IELSON MUNI See FERGUS FALLS

.ER See GARRISON

.S MUNI See NEW YORK

MINNEAPOLIS
ANOKA CO *IFR* 10 N
908 H59 (2) BL4 S5 F4
FSS: MINNEAPOLIS (LC PA 9-9386)
VFR ADV For APP CON DEP CON See MINNEAPOLIS
MINNEAPOLIS-ST PAUL INTL (WOLD CHAMBERLIN FLD)
Remarks: Threshold rnwy 31 displaced 1005' N.

CRYSTAL See Section IV-A

FLYING CLOUD See Section IV-A

ST PAUL INTL (WOLD CHAMBERLAIN) FLD See Section IV-A

MONTEVIDEO MUNI 2 NE
1036 25 (2) *L S3 F2 U-1 FSS: REDWOOD FALLS

MONTICELLO
FLYNN'S 2 NE
943 25 (1) L4 S5 F2 FSS: MINNEAPOLIS
Remarks: P-line S. Lgts on request after 1 AM.

MOORHEAD See DILWORTH

MOOSE LAKE MUNI 3 SW
1075 25 (1) F2 FSS: HIBBING

MORA MUNI 1 NE
1012 25 (1) L4, 10 S1 F2 VASI: Rwy 1, 19
FSS: MINNEAPOLIS
Remarks: NW SE strip clsd. P-lines SE. Unattended.

MORGAN
RICKE'S 1 E
1040 26 (1) S1 F2 FSS: REDWOOD FALLS

MORRIS MUNI 3 SW
1134 40 (3) L4 S1 F4 FSS: ALEXANDRIA
Remarks: P-line SE. NW/SE strip ruf.

NEW ULM MUNI 2 W
1005 H29 (1) BL4 S3 F4 U-1 FSS: REDWOOD FALLS

NEW YORK
MILLS MUNI 2 SE
1499 25 (1) F2 FSS: ALEXANDRIA
Remarks: 300' overrun NW end.

NISSWA
HEYWOOD GULL LAKE 1 SW
1231 32 (1) S3 FSS: ALEXANDRIA
Remarks: Fee. Taxi E side of strip only.

NORTHOME MUNI 1 NE
1427 20 (2) FSS: HIBBING

NORTHPORT See WHITE BEAR LAKE

ORTONVILLE MUNI 1 SE
1095 24 (2) S1 FSS: WATERTOWN
Remarks: P-lines NW, SW, SE.

OTIS LODGE See GRAND RAPIDS

AIRPORT DIRECTORY

OWATONNA MUNI 3 NW
1147 H35 (2) L4 S5 F4 U-1 FSS: ROCHESTER

PARK RAPIDS MUNI 1 SW
1440 H44 (1) S5 F4 FSS: ALEXANDRIA
Remarks: Displaced threshold 300' NW rnwy 33.

PAYNESVILLE MUNI 1 SW
1180 24 (3) S1 F2 FSS: ALEXANDRIA
Remarks: P-line N.

PEQUOT LAKE
BREEZY POINT 15 N
1250 H26 (1) S3 F4 U-1 FSS: ALEXANDRIA

PERHAM MUNI 2 NW
1370 26 (2) F2 FSS: ALEXANDRIA
Remarks: P-lines E.

PIETENPOL FLD See SPRING VALLEY

PINE CITY MUNI 1 NE
971 26 (1) FSS: MINNEAPOLIS
Remarks: Soft when wet.

PINE CREEK 2 NW
1071 22 (1) F2 U-1 FSS: GRAND FORKS

PINE RIVER MUNI 1 NW
1313 20 (2) S1 F2 FSS: ALEXANDRIA

PIPESTONE MUNI 1 SE
1736 H31 (1) L4 S5 F4 U-1 FSS: REDWOOD FALLS

PRINCETON MUNI 1 W
985 23 (1) L4 F2 FSS: MINNEAPOLIS
Remarks: P-line N.

RED LAKE FALLS
RED LAKE FALLS MUNI 3 NE
1066 20 (1) S1 FSS: GRAND FORKS
Remarks: P-line NW.

RED WING MUNI 2 NE
781 33 (1) F4 FSS: MINNEAPOLIS
Remarks: P-line N.

REDWOOD FALLS *IFR* 2 NE
1023 H25 (1) L4 S5 F4 FSS: REDWOOD FALLS on Fld

RICKE'S See MORGAN

ROCHESTER MUNI See Section VI-A

ROSEAU MUNI 2 E
1059 H37 (1) BL4 F2 U-1 FSS: GRAND FORKS

ROSEMOUNT
SOUTHPORT 4 SW
962 H28 (1) L4 S5 F4
FSS: MINNEAPOLIS (LC PA 9-9386)
Remarks: P-line NW. 100' overrun NW end of NW/SE rnwy.

RUSH CITY MUNI 1 NE
923 26 (1) S1 F2 FSS: MINNEAPOLIS

ST CLOUD
WHITNEY MEML 1 NW
1039 H35 (3) B S5 F4 FSS: MINNEAPOLIS (LC PA 9-9386)

ST JAMES MUNI 2 E
1068 27 (1) L4, 7 F4 FSS: REDWOOD FALLS

ST PAUL
LAKE ELMO 9 NE
925 H23 (1) BL4 S1 F4
FSS: MINNEAPOLIS (LC PA 9-9386)
DOWNTOWN (HOLMAN FLD) See Section IV-A

ST PETER MUNI 3 NW
900 20 (1) FSS: MINNEAPOLIS
Remarks: P-line S.

SANDSTONE MUNI 1 SW
1089 26 (1) S1 F3 FSS: MINNEAPOLIS

SAUK CENTRE MUNI 2 SE
1253 28 (2) F2 FSS: ALEXANDRIA

SKY HARBOR See DULUTH

SLEEPY EYE MUNI 3 SE
1004 24 (2) L4 S3 F3 FSS: REDWOOD FALLS
Remarks: P-line NE.

SOUTHPORT See ROSEMOUNT

SOUTH ST PAUL FLEMING FLD See Section IV-A

SPRINGFIELD MUNI 1 SW
1073 22 (2) S3 F3 U-1 FSS: REDWOOD FALLS
Remarks: Rgt tfc SE, SW. P-lines NE, NW.

SPRING VALLEY
PIETENPOL FLD 8 SE
1300 18 (3) S1 F2 FSS: ROCHESTER

STANTON
CARLETON 1 NE
920 25 (2) L4 S3 F3 U-1 FSS: MINNEAPOLIS

STABLES MUNI 1 NW
1298 32 (3) F2 FSS: ALEXANDRIA
Remarks: P-line E and S.

STARBUCK MUNI Adj S
1141 25 (1) L4 S5 F2 U-1 FSS: ALEXANDRIA

STEPHEN MUNI 1 NE
830 25 (1) FSS: GRAND FORKS
Remarks: P-line S. Clsd winters.

THIEF RIVER FALLS MUNI *IFR* 3 S
1115 H37 (1) BL4 S5 F4 U-1 FSS: GRAND FORKS

AIRPORT DIRECTORY

ER MUNI 1 NW
1369 24 (1) FSS: HIBBING

CY MUNI 1 NE
1340 24 (3) L4 S3 F2 FSS: REDWOOD FALLS

N VALLEY 1 W
1050 26 (1) S1 F2 FSS: FARGO
Remarks: P-lines N, S.

ER MUNI 1 NW
1742 20 (3) F2 FSS: REDWOOD FALLS
Remarks: P-lines W, SW, SE.

ENA MUNI 1 E
1350 37 (4) L4 F2 FSS: ALEXANDRIA
Remarks: P-line NW.

KER MUNI 4 NW
1364 26 (1) F4 FSS: HIBBING
Remarks: Telephone for service.

NUT GROVE Adj W
1240 22 (1) BL4 S5 F4 FSS: REDWOOD FALLS
Remarks: Lgts and bcn operg dusk 10:00 PM, then by request. P-line N.

REN MUNI 2 E
880 26 (2) S1 F2 FSS: GRAND FALLS

ROAD MUNI 2 NW
1071 23 (2) F2 FSS: GRAND FORKS
Remarks: P-line S.

KISH
ITRAMI CO FLD 1 S
1181 25 (1) FSS: HIBBING
Remarks: P-line N.

ATON MUNI 3 SW
1022 20 (2) F2 FSS: ALEXANDRIA

TE BEAR LAKE
ENSON 2 N
950 20 (1) *L S5 F2 U-1 FSS: MINNEAPOLIS

RTHPORT 3 E
1022 20 (2) S5 F2 FSS: MINNEAPOLIS
Remarks: P-line N.

NEY MEML See ST CLOUD

MAR MUNI *IFR* 1 W
1130 H35 (1) BL4 S5 F4 U-1 FSS: REDWOOD FALLS (DL)
Remarks: P-line S.

OM MUNI 2 N
1409 26 (1) L4 F4 FSS: REDWOOD FALLS
Remarks: P-line S.

NA
NRAD FLD *IFR* 3 NW
656 H40 (2) BL4 S5 F4 U-1 FSS: LA CROSSE (DL)
Remarks: P-line bldgs S.

WINSTED MUNI 1 SW
1030 27 (1) F4 FSS: MINNEAPOLIS
Remarks: Soft when wet.

WORTHINGTON MUNI *IFR* 2 N
1572 H40 (1) BL4 S5 F4 FSS: REDWOOD FALLS (DL)

MISSISSIPPI

ABERDEEN
ARMORY-MONROE CO 4 NE
225 H40 (1) BL4 F4 FSS: TUSCALOOSA

STINSON FLD MUNI 3 NW
239 H18 (1) S3 F2 FSS: TUSCALOOSA

ABIDE See GREENVILLE

ACKERMAN
CHOCTAW CO 3 W
552 H30 (1) U-1

ALEXANDER See POPLARVILLE

AMORY Adj W
240 H18 (1) L4 F4 FSS: MUSCLE SHOALS

ANGUILLA
ROLLANG FLD 2 SW
115 37 (3) S5 F3 U-1 FSS: JACKSON
Remarks: P-line E.

ARMORY-MONROE CO See ABERDEEN

BALDWYN FLD Adj E
380 14 (1)
Remarks: Minor repairs on request only.

BALL See EGYPT

BARRIER FLD See YAZOO CITY

BASSFIELD Adj SE
450 27 (1)

BATESVILLE
PANOLA CO 3 NE
218 H30 (1) L4 S3 F4 U-1

BAY ST LOUIS
HANCOCK CO 2 W
10 22 (1) FSS: NEW ORLEANS
Remarks: Soft when wet.

BELL See WINTERVILLE

BELZONI
BELZONI-CHARTER SERVICE 1 E
110 26 (1) FSS: GREENWOOD

HALBROOK FLD Adj W
110 14 (1) S3 FSS: GREENWOOD
Remarks: 6' ditch S end.

AIRPORT DIRECTORY

TURNER 2 SW
110 33 (1) FSS: GREENWOOD

BETHUNE See HERNANDO

BILLUPS PLANTATION See INDIANOLA

BISHOP FLYING SERVICE See HOLLY SPRINGS

BOB GUNN DUSTING See TCHULA

BOOGA BOTTOM See HUSHPUCKENA

BROOKHAVEN MUNI 3 NE
486 H28 (1) BL4 S-5 F4 FSS: McCOMB

BUDE
CLEMENT FLD 1 SW
205 22 (1)
Remarks: Cattle on field.

BUSBY See WAYNESVILLE

CAMPBELL FLD See MADISON

CANTON
KING RIDDLE 3 W
260 H40 (1)
Remarks: P-line S.

CARTHAGE 3 SE
342 18 (1) F2 U-1 FSS: MERIDIAN

CHARLESTON
PAYNES 6 SW
158 22 (3)

CHOCTAW CO See ACKERMAN

CLARKSDALE
FLETCHER FLD 7 NE
173 H40 (1) BL4 S5 F4 U-1
FSS: MEMPHIS (LC MA 4-2364)

CLEMENT FLD See BUDE

CLEVELAND MUNI 2 NW
139 H32 (1) BL4 F4 U-1 FSS: GREENWOOD

CLOVERDALE PLANTATION See NATCHEZ

COLDWATER Adj W
247 14 (3) S3 F3 FSS: MEMPHIS
Remarks: P-line E.

COLLINS-JAYCEE Adj N
290 36 (1) L4 F2 FSS: McCOMB
Remarks: P-line S. Soft when wet.

COLUMBIA MUNI 3 NE
210 H26 (1) L4 FSS: McCOMB

COLUMBUS
LOWNDES CO *IFR* 3 SE
187 H40 (1) BL4 S3 F4 U-1 FSS: TUSCALOOSA
VFR ADV: COLUMBUS APP CON 118.1 126.2 122.5R; DEP CON 118.1

CORINTH
ROSCOE TURNER 4 SW
424 H38 (1) BL4 S3 F4 U-1 FSS: JACKSON

CROSBY MUNI 1 NE
336 H31 (1) BL4 S3 F4 FSS: McCOMB

CYPRESS See GREENVILLE

DALE LANDING STRIP See SIMRALL

DAVIS See NITTA UYMA

DESOTO ARPK See HORN LAKE

DIXIE DUSTING See GREENVILLE and ITTA BENA

DOWNES FLD See MERIDIAN

DREW MUNI 2 S
136 22 (1) L4 F2 FSS: GREENWOOD

DYESS See WEBB

EGYPT
BALL 2 S
300 26 (1) F2 FSS: TUSCALOOSA

FLAUTT FLYING SERVICE See SWAN LAKE

FLETCHER FLD See CLARKSDALE

FLORA MEML CIRCLE 3 NE
190 21 (1)

FOOTE
LAKE WASHINGTON 2 NW
115 22 (1)

FOREST MUNI Adj S
512 H36 (1) FSS: JACKSON

FRAZIER FLD See LELAND

GILLSBURG
WILLIAMS AND SMITH 2 SW
320 26 (1)
Remarks: P-line SW.

GLEN ALLAN
LOVE 2 SE
106 24 (2) S5

GREENVILLE
ABIDE 3 NE
118 23 (1) S5 F2 FSS: GREENWOOD
Remarks: Soft when wet.

AIRPORT DIRECTORY

:YPRESS 2 SW
125 28 (1) S5 F4 FSS: GREENWOOD
Remarks: P-line N. E.

NXIE DUSTING 4 E
118 41 (1) S5 FSS: GREENWOOD
Remarks: P-line S.

REENVILLE MUNI 2 E
119 H40 (3) BL4 S5 F4 U-1 FSS: GR ENWOOD

:ENWOOD 5 SE
162 H50 (3) S5 FSS: GREENWOOD (LC GL-3-2631)

REENWOOD MUNI *IFR* 2 SW
129 H40 (3) BL4 S5 F4 FSS: GREENWOOD on Fld

:NADA MUNI 3 N
207 H51 (3) L4 S5 F4 U-1 FSS: GREENWOOD

F PARK See OCEAN SPRINGS

FPORT MUNI See Section IV-A.

BROOK FLD See BELZONI

COCK CO See BAY ST LOUIS

DY-ANDERS See NATCHEZ

TIESBURG MUNI *IFR* 4 SE
151 H43 (3) BL4 S5 F4 U-1 FSS: McCOMB

LEHURST-COPIAH CO 2 E
460 21 (1) FSS: JACKSON
Remarks: 330' SW end strip unusable.

BS FLYING SERVICE, INC See MOORHEAD

NANDO
:THUNE 2 S
300 17 (1) S3 F3 FSS: MEMPHIS
Remarks: Ditch S.

LY SPRINGS
SHOP FLYING SERVICE 4 NW
512 26 (1) S3 F2
Remarks: P-line N.

N LAKE
:SOTO ARPK 7 S
300 H26 (1) L4 S5 F4 U-1
Remarks: Rgt tfc S. P-line N. S.

STON MUNI Adl S
342 H30 (1) BL4 S3 F4 U-1 FSS: GREENWOOD

GINS CORNER See ITTA BENA

1PUCKENA
)OGA BOTTOM 2 S
140 25 (1)
Remarks: P-line S.

I H BASS JR MEML See LUMBERTON

INDIANOLA
BILLUPS PLANTATION 3 SW
120 19 (1) FSS: GREENWOOD

LEGION 3 NW
126 H70 (2) L4 S3 F4 U-1 FSS: GREENWOOD
Remarks: Only 4500 18 lgtd.

INVERNESS
MONTGOMERY 1 NW
120 25 (2)
Remarks: P-line N.

ITTA BENA
DIXIE DUSTING 2 W
130 21 (1) FSS: GREENWOOD
Remarks: P-line S. Attended May-Sept.

HAWKING FLD See JACKSON, HAWKINS FLD in Section IV-A

ITTA BENA
HUGGINS CORNER 1 NW
129 14 (1) F2 FSS: GREENWOOD
Remarks: P-line NW-Clsd Oct thru Apr.

SOUTHERN FLYING SVC 1 N
129 24 (1) FSS: GREENWOOD
Remarks: P-line E. Attended May to Nov.

JACKSON
HAWKINS FLD See Section IV-A

THOMPSON FLD See Section IV-A

JACKSON COUNTY See PASCAGOULA

KEY FLD See MERIDIAN, KEY FLD in Section IV-A

KIMBROUGH FLD See QUITO

KING RIDDLE See CANTON

KOSCIUSKO-ATTALE CO 3 NE
479 H33 (1) BL4 F2 FSS: GREENWOOD
Remarks: Use paved area only, shoulders frost.

LAKE WASHINGTON See FOOTE

LAKEWOOD See WATER VALLEY

LAUREL MUNI *IFR* 3 SW
235 H50 (2) BL4 S5 F4 FSS: MERIDIAN (LC 428-0845)

LEGION See INDIANOLA

LELAND
FRAZIER FLD 3 SW
119 15 (1) S3 FSS: GREENWOOD
Remarks: Fuel during dusting season only.

AIRPORT DIRECTORY

HUNTLEY 3 W
118 17 (1) *L4 F4 FSS: GREENWOOD
Remarks: W end soft when wet.

TATE 1 N
119 13 (2) FSS: GREENWOOD
Remarks: Ditch E of NW SE lndg strip.

LEXINGTON
MOORE FLD 2 E
230 25 (1) L4 F2 FSS: GREENWOOD

LOUISVILLE 1 N
586 H30 (1) BL4 F4 FSS: MERIDIAN
Remarks: Non-standard rotating Bcn.

LOVE See **GLEN ALLAN**

LOWNDES CO See **COLUMBUS**

LUMBERTON
I H BASS JR MEML 2 NW
310 H30 (1) L4 F2 FSS: McCOMB

MADISON
CAMPBELL FLD *IFR* 2 SE
324 H35 (1) BL4 S5 F4 U-1
FSS: JACKSON (LC 354-5531)
VFR ADV: For APP CON, DEP CON See JACKSON/ THOMPSON FLD in Section IV-A.
Remarks: Rnwy 9-27 soft when wet.

MAGEE MUNI 3 W
555 H30 (1) L4 F4

MAGNOLIA
PROGRESS 10 SE
350 20 (1)
Remarks: P-line S.

MATTSON
SHANNON ARPK 3 N
160 15 (1)
Remarks: Attended Mar-Oct.

McCHAREN FLD See **WEST POINT**

McCOMB-PIKE CO *IFR* 1 NW
460 H40 (1) BL4 S1 F4 FSS: McCOMB on Fld
Remarks: Antenna NE. Sod soft when wet. N. 1000' unlighted.

MERIDIAN
DOWNER FLD 8 NE
480 H32 (1) S1 F4 FSS: MERIDIAN (LC 48-21243)

KEY FLD See Section IV-A

MERIGOLD 1 N
143 20 (2) *L4 S5 F2 FSS: GREENWOOD
Remarks: P-line NW.

MONTGOMERY See **INVERNESS**

MOORE FLD See **LEXINGTON**

MOORHEAD
HOBBS FLYING SERVICE, INC 2 S
125 24 (1) FSS: GREEN[illegible]
Remarks: P-line S W. Land at own risk. Attended Mar-Nov.

NATCHEZ
CLOVERDALE PLANTATION 4 SW
68 17 (1) FSS: McC[illegible]
Remarks: Soft when wet.

HARDY-ANDERS *IFR* 6 NE
272 H50 (3) BL4 S3 F4 U-1 FSS: McC[illegible]

NEW ALBANY MUNI 3 NW
399 H32 (1) S3 F2 U-1

NEWTON
O'KEEFE 1 SE
385 H30 (1) BL4 F2 FSS: MER[illegible]

TODD 4 S
230 20 (1) [illegible] FSS: MER[illegible]
Remarks: Cattle.

NITTA YUMA
DAVIS 1 SE
115 19 (2) S5 F4 FSS: GREEN[illegible]
Remarks: Bndry lgts on S side E/W strip operg prior reques[illegible]

OCEAN SPRINGS
GULF PARK 3 E
20 H25 (1) BL4 F4

O'KEEFE See **NEWTON**

OKTIBBEHA See **STARKVILLE**

ONWARD
REALITY PLATATION 1 S
95 21 (1)

OXFORD
OXFORD MUNI 6 S
300 30 (2) S3 F4 FSS: MEMP[illegible]
Remarks: Ruf.

UNIV-OXFORD 1 NW
445 H47 (1) BL4 F4 FSS: MEMP[illegible]

PANOLA CO See **BATESVILLE**

PASCAGOULA
JACKSON CO 3 NE
16 H45 (2) BL4 S5 F4 FSS: MCB[illegible]

PAYNES See **CHARLESTON**

PERTHSHIRE FLD Ad, SW
155 26 (2) FSS: GREEN[illegible]
Remarks: P-lines SSW, SSE.

PHILADELPHIA MUNI 2 NW
453 32 (1) FSS: MER[illegible]
Remarks: Soft when wet.

AIRPORT DIRECTORY

CAYUNE MUNI *IFR* 1 SW
60 H40 (1) BL4 S1 F4 U-1 FSS: NEW ORLEANS

CKENS
PRESLEY'S 1 NE
230 20 (1) S2 F2
Remarks: P-lines E, W. Attended days June-Oct.

ENTISS 2 SW
290 19 (2) F2 FSS: McCOMB

'RESLEY'S See PICKENS

PLARVILLE
LEXANDER
286 40 (1) F4
Remarks: Unattended. Emgcy.

)GRESS See MAGNOLIA

TO
IMBROUGH FLD Adj S
28 23 (2) S2 F2
Remarks: Ruts.

'MOND
ILLIAMS 3 NE
244 H40 (3) S5 F4
FSS: JACKSON (LC 254-5531)

ALITY PLANTATION See ONWARD

) GAP See SILVER RUN

LEY-FLYING SERVICE 2 W
520 16 (1)
Remarks: Soft when wet.

:HDALE
ATTS FLD Adj NE
145 23 (1) FSS: GREENWOOD

LANG FLD See ANGUILLA

EDALE 1 N
150 18 (1) FSS: GREENWOOD
Remarks: Ant in apch rnwy 3.

COE TURNER See CORINTH

EVILLE Adj NE
216 19 (1)
Remarks: Attended Apr-Oct.

)ERS CARSON See TRINITY

TT 1 E
135 48 (1)

NNON ARPK See MATTSON

ER RUN
:D GAP 2 SE
240 13 (1) F3

SIMRALL
DALE LANDING STRIP 10 W
85 34 (1)

SOUTHERN FLYING SVC See ITTA BENA

STARKVILLE
OKITIBBEHA 7 NE
250 32 (3) S5 F4 U-1 FSS: TUSCALOOSA

STARKVILLE MUNI 2 SW
325 H50 (2) BL4 S5 F4 U-1 FSS: TUSCALOOSA
Remarks: Glider activity. Thershold rnwy 8 displaced 800' S.

STINSON FLD MUNI See ABERDEEN

STONE COUNTY See WIGGINS

SWAN LAKE
FLAUTT FLYING SERVICE Adj S
145 16 (1) S3 F2
Remarks: Soft when wet.

TATE See LELAND

TCHULA
BOB GUNN DUSTING 1 N
115 21 (1) FSS: GREENWOOD
Remarks: 600' rnwy 12 rutted, ruf. Attended June-Oct.

THOMPSON FLD See JACKSON, THOMPSON FLD in Section IV-A

TODD See NEWTON

TRINITY
SANDERS CARSON 3 SW
200 30 (1) L4

TUNICA 1 SE
200 18 (1) S3 F2 FSS: MEMPHIS
Remarks: Soft when wet.

TUPELO MUNI *IFR* 3 W
361 H42 (2) BL4 S5 F4 U-1 FSS: MUSCLE SHOALS

TURNER See BELZONI

TUTWILER
WILLIAMS 1 S
160 25 (1) S3 F2 FSS: GREENWOOD
Remarks: Soft when wet.

TWINKLE TOWN See WALLS

UNION MUNI 1 NW
518 23 (1)

UNIV-OXFORD See OXFORD

VICKSBURG
VICKSBURG-MORRISEYS LODGE 12 NW
97 19 (1) FSS: JACKSON
Remarks: P-line W.

AIRPORT DIRECTORY

VICKSBURG MUNI 7 SW
106 H45 (1) BL4 S3 F4 U-1 FSS: JACKSON

WHITTAKER 10 NE
90 20 (1) F2 FSS: JACKSON
Remarks: Use at own risk.

WALLS
TWINKLE TOWN 2 S
210 36 (2) L4 S1 F4 U-1 FSS: MEMPHIS (LC 398-9269)
Remarks: P-line N.

WATER VALLEY
LAKEWOOD 2 S
320 16 (1)
Remarks: P-line S. Ruf spots.

'ATTS FLD See ROCHDALE

WAYNESVILLE
BUSBY
250 30 (1) FSS: MERIDIAN

WEBB
DYESS 2 E
150 11 (1)
Remarks: P-line E.

WEST POINT
McCHAREN FLD 3 S
203 H30 (1) L4 FSS: TUSCALOOSA

WHITTAKER See VICKSBURG

WIGGINS
STONE COUNTY 1 W
270 H30 (1) FSS: MOBILE

WILLIAMS See RAYMOND

WILLIAMS See TUTWILER

WILLIAMS AND SMITH See GILLSBURG

WINONA MUNI 1 S
370 25 (1) FSS: GREENWOOD
Remarks: S end soft when wet.

WINTERVILLE
BELL 1 W
122 23 (1) F4

WINTERVILLE 1 W
122 23 (1) F4
Remarks: P-line E. Soft when wet.

WOOL MARKET 2 SE
31 22 (1) S5 F2

YAZOO CITY
BARRIER FLD 2 N
110 H30 (1) BL4 S3 F4 U-1 FSS: JACKSON
VFR ADV: For APP CON, DEP CON See JACKSON/THOMPSON FLD in Section IV-A

MISSOURI

ALBANY-MEML 1 NW
859 24 (2) S1 F2 FSS: ST JOSEPH
Remarks: Attended irregularly.

ANDERSON
YOCOM FLD 3 NE
970 17 (1) FSS: JOPLIN

ARROWHEAD See ST LOUIS (CREVE COCUR)

AURORA MUNI 1 SE
1430 30 (2) F1 FSS: SPRINGFIELD

BELTON
VILLNAVE 4 SW
1125 24 (1) S5 F2 FSS: KANSAS CITY (LC GR 1-45[illegible]
Remarks: P-line N.

BEL-VOIR ACRES See GOLDEN

BIG BASS RESORT See BRANSON

BIG LAKE ARPT See BIGELOW

BIGELOW
BIG LAKE ARPT 3 SW
860 21 (1) F2

BISMARCK MEML 1 SE
1038 H20 (1) B*L4 F4 U-1 FSS: CAPE GIRARDEAU

BLACK OAK COVE RESORT See LAMPE

BOLIVAR MEML 1 W
1116 25 (2) *L4 F2 FSS: SPRINGFIELD
Remarks: P-line W, NE.

BOONVILLE 1 NE
590 22 (2) S1 F2 FSS: COLUMBIA
Remarks: P-lines W, SW.

BOWLING GREEN 2 NW
882 22 (1) *L4 S1 F4 U-1 FSS: COLUMBIA
Remarks: Soft when wet.

BRADLEY MUNI See MOBERLY

BRANSON
BIG BASS RESORT 6 SE
950 26 (2) F4 FSS: SPRINGFIELD

BRANSON MEML 3 W
1053 23 (2) FSS SPRINGFIELD

GOLF RANCH 2 E
1178 22 (1) FSS. SPRINGFIELD

BRAYMER
WRIGHT FLD 2 W
880 26 (2)
Remarks: P-line W, tie downs.

BRIGHT ELBOW RANCH See CEDAR CREEK

AIRPORT DIRECTORY

OOKFIELD
TROUTMAN 2 SE
735 26 (2) F2

FFALO MUNI 1 N
1154 H29 (1) F1 U-1 FSS: SPRINGFIELD
Remarks: 3200 strip avail.

TLER MEML 2 N
839 26 (1) F2 FSS: KANSAS CITY DL

BOOL MEML 1 NE
1217 23 (1) BL4 FSS: HARRISON ARP

HOUN See MONTROSE

DENTON MEML 3 SE
1360 H23 (1) L4 S1 F4 FSS VICHY
Remarks: P-lines SSW.

PBELL MUNI 3 E
284 37 (1) FSS: CAPE GIRARDEAU

NON MEML See KIRKSVILLE

E GIRARDEAU MUNI 5 SW
342 H40 (1) BL4 S5 F4 U-1
FSS: CAPE GIRARDEAU on Fld

ROLLTON MEML 3 S
670 H20 (1)

THAGE
YERS PARK MEML MUNI 2 S
1083 H30 (2) BL4 S5 F4 U-1 FSS: JOPLIN
Remarks: P-lines S.

UTHERSVILLE MEML 1 SW
270 24 (2) L4 F4 FSS: DYERSBURG
Remarks: TV NE.

SVILLE
NN ANN 2 S
1448 22 (1) FSS: JOPLIN
Remarks: P-line N.

MBERLINE 4 SE
1550 27 (2) S5 F4 U-1 FSS: JOPLIN
Remarks: Fence N, W.

AR CREEK
IGHT ELBOW RANCH 4 W
912 28 (1)

RLESTON
UNTY 2 W
325 20 (1) FSS: CAPE GIRARDEAU
Remarks: Fence N. F2 fuel emgcy only.
LICOTHE MUNI 3 E
780 H25 (1) BL2 S5 F4 FSS: KIRKSVILLE
Remarks: 4000' strip avail.

RK FLD See PROTEM

CLINTON
FERRO'S RANCH-AERO 4 NW
820 17 (2) *L S5 F2 FSS: KANSAS CITY

SPORTSMAN ARPK 2 NE
800 37 (2) L4 U-1 FSS: KANSAS CITY
Remarks: P-lines N, S, SW. Cntr 3000' NE SW strip lgtd.

COLUMBIA MUNI *IFR* 2 NW
778 H40 2* BL4 S5 F4 FSS: COLUMBIA on Fld
Remarks: Shoulders soft. Rgt tfc pat on tk-off or lndg to S, other times left tfc pat. Taxi on rnwy when fld is wet.

CONSERVATION COMMISSION See EMINENCE

COUNTY See CHARLESTON

CREVE COEUR 5 NW
445 H16 (1) L4 S5 F4 FSS ST LOUIS (LC PE 1-4411)
Remarks: Rgt tfc SW. Rnwy lgts after midnight on prior req. 3236 strip avbl.

CUBA
FLUTTERBUGS ROOST ARPK 2 SE
990 H16 (1) F2 FSS: VICHY
Remarks: Ravine N. P-line S.

DEXTER MUNI 1 SE
304 H45 (2) BL4 S5 F4 U-1
FSS: CAPE GIRARDEAU
Remarks: Rgt tfc to N, NE. 30 unmrkd P-line E edge of fld.

DOWNTOWN See SPRINGFIELD

EADS See IBERIA

E KANSAS CITY See GRAIN VALLEY

EASTSIDE See ST JOSEPH

EDINA 4 SE
780 20 (3) F2
Remarks: P-line N.

EDWARDS RANCH See PINEVILLE

ELDON MODEL AIRPARK 1 NE
910 H23 (1) L4 F2 FSS: COLUMBIA
Remarks: P-line E, SW. Rgt tfc NE, W.

ELLINGTON
RAYFIELD 2 S
780 20 (1) FSS: VICHY

EMINENCE
CONSERVATION COMMISSION 3 NW
1080 20 (1) FSS: VICHY

EXCELSIOR SPRINGS MEML 1 SE
998 H20 (1) L4 F3 FSS: KANSAS CITY
Remarks: Lgts oper dusk-midngt.

FAMULINER See GARDEN CITY

AIRPORT DIRECTORY

FARMINGTON MUNI 1 S
931 H24 (1) BL4 S5 F4 U-1 FSS: CAPE GIRARDEAU (DL)
Remarks: Rgt tfc rnwy 2, overrun each end.

FAYETTE-FLYING CLUB 2 S
680 28 (2)

FERRO'S RANCH-AERO See CLINTON

FESTUS
LUCAS 1 S
435 23 (2) L4 S5 F4 FSS: ST LOUIS
Remarks: 4′ fence crosses E end E W rnwy.

FIELDS MEML See POPLAR BLUFF

FLUTTERBUGS ROOST ARPK See CUBA

FOWER See MACON

FREDERICKTOWN MUNI 3 N
870 H17 (1) L4 F2 FSS: CAPE GIRARDEAU

FRIEND ARPK See MONETT

FULTON MUNI 3 SW
875 H30 (1) BL4 S1 F4 U-1 FSS: COLUMBIA
Remarks: Poles SE.

GAINESVILLE MEML 2 NE
1060 21 (2) S1
Remarks: P-line SSW. TV ant N.

GARDEN CITY
FAMULINER 3 NW
898 22 (1) F2
Remarks: P-lines NE & SW.

GARST See WATSON

GIDEON MEML 1 SE
268 H45 (2) S4 F2 FSS: CAPE GIRARDEAU
Remarks: P-line N.

GLASGOW
HAWTHORN GLASGOW 1 W
600 28 (1)
Remarks: P-line N end rnwy. Soft when wet.

GOLDEN
BEL-VOIR ACRES 3 NE
1139 16 (1)
Remarks: P-line N.

TABLE ROCK 1 W
1060 H30 (1) F4

GOLF RANCH See BRANSON

GORIN
PARRIS 1 S
760 19 (1) *L S3 F2 FSS: KIRKSVILLE
Remarks: Use at own risk.

WILEY'S AIRSTRIP 3 NW
640 19 (1) S5 F2 FSS: KIRKSVILLE

GRAIN VALLEY
E KANSAS CITY *IFR* Adj W
840 H30 (1) L4 S5 F4 U-1 FSS: KANSAS CITY
VFR ADV: For APP CON, DEP CON See KANSAS CITY MUNI in Section IV-A
Remarks: P-lines S, SW. Fence E & W.

GRAVOIS MILLS
WULFF HARBOR 2 SE
770 30 (1) F4 U-1
Remarks: Unattended. Drop off end rnwy 6.

HANNIBAL MUNI 4 NW
770 H25 (1) BL4 S3 F4 U-1 FSS: QUINCY
Remarks: Rnwy lgts after 2200 thru FSS Quincy, Ill.

HARRISONVILLE
SEVY 2 S
900 17 (1) S3 F2 FSS: KANSAS CITY

HAWTHORN GLASGOW See GLASGOW

HAYTI-MID CONTINENT 1 SE
270 30 (1) S5 F2 FSS: DYERSBURG
Remarks: P-line N.

HENDRICKS See MT VERNON

HIGGINSVILLE-JUNCTION 5 S
730 20 (2) S5 F4 U-1 FSS: KANSAS CITY
Remarks: Soft when wet. 500′ overrun N.

HORNERSVILLE MEML 2 W
248 H20 (1)
Remarks: P-line N. 3500′ N/S strip avail.

HOUSTON MEML 1 NW
1210 H24 (1) BL4 F2 FSS: V CH

IBERIA
EADS 1 W
960 31 (3) S1 F4 FSS: VICH

INDEPENDENCE MEML 4 E
756 24 (2) L4 S5 F3 U-1 FSS: KANSAS CITY (LC GR 1-45
Remarks: P-line S.

INTER-STATE See PLEASANT HILL

JEFFERSON CITY MEML 1 N
547 H50 (1) BL4 S5 F4 U-1 FSS: COLUMBIA
Remarks: Poles apch end rnwy 35.

JOPLIN MUNI *IFR* 4 NE
980 H55 (3) BL4, 6 S5 F4 U-1 FSS: JOPLIN or

AIRPORT DIRECTORY

NSAS CITY
ANSAS CITY MUNI See Section IV-A

IID-CONTINENT See Section IV-A

TATE LINE 10 S
990 H22 (1) *L2, 4 S5 F4 U-1 TPA: Slow tfc alt 600'.
FSS: KANSAS CITY (LC GR 1-4572)
Remarks: Rolling.

INETT MEML 1 SE
262 H30 (1) BL4 S3 F4 U-1 FSS: DYERSBURG
Remarks: P-line SW.

BERLING CITY See REEDS SPRINGS
KSVILLE
ANNON MEML *IFR* 6 SE
970 H39 (1) BL4 S1 F4 U-1
FSS: KIRKSVILLE on Fld
Remarks: E W rnwy ruf.

AR MUNI 2 W
1003 H21 (1) BL4 FSS: JOPLIN

BERT-ST LOUIS MUNI See ST LOUIS, LAMBERT-ST LOUIS
JNI in Section IV-A

PE
ACK OAK COVE RESORT 1 W
1080 16 (1)

ANON MUNI 3 S
1323 H29 (1) BL4 S1 F4 U-1 FSS: SPRINGFIELD
Remarks: Scvg on req after SS. P-line S.

INGTON MUNI 3 NW
590 30 (1) *L4 S5 F4 FSS: KANSAS CITY
Remarks: P-line SW, NW; soft-wet. UNICOM daylgt hrs.

I CREEK-GRAND GLAIZE MEML See OSAGE BEACH

ASTER See ST LOUIS

AS See FESTUS

RS See ROCKPORT

I ANN See CASSVILLE

ON
WER 1 SE
160 30 (1) *L4 S5 F2 U-1 FSS: KIRKSVILLE

DEN MUNI *IFR* 3 N
295 H50 (4) BL4 S5 FSS: CAPE GIRARDEAU (DL)

FIELD
D-CONTINENT-SPRAYERS Adj SE
500 20 (1) S5 F2 FSS: SPRINGFIELD
Remarks: P-lines SW.

CELINE MUNI 1 N
374 H23 (1) BL4 FSS: KIRKSVILLE

MARSHALL MUNI MEML 2 S
777 33 (2) BL4 S3 F4 FSS: COLUMBIA
Remarks: P-line N, 390 overrun N, 185 overrun S.

MARYVILLE MUNI 2 NW
1154 H20 (1) BL4 S5 F4 FSS: ST JOSEPH

MEXICO MEML 3 E
815 H20 (1) BL4 S5 F4 U-1 FSS: COLUMBIA

MID-CONTINENT
MID-CONTINENT See KANSAS CITY, MID-CONTINENT in Section IV-A

SPRAYERS See MANSFIELD

MILLS See SUMERSVILLE

MOBERLY
BRADLEY MUNI 3 N
865 H47 (3) BL4 S1 F4 FSS: COLUMBIA
Remarks: P-lines NE, SE. Rnwy 12 threshold displaced 630'.

MONETT
FRIEND ARPK 4 W
1360 H34 (1) *L4 S1 F4 FSS: JOPLIN
Remarks: P-line N.

MONETT 1 E
1392 H24 (2) *L4 S3 F4 FSS: JOPLIN

MONTROSE
CALHOUN Adj W
810 32 (1) F2

MOSBY 1 W
765 18 (1) S3 F2 FSS: KANSAS CITY

MT VERNON
HENDRICKS 1 NW
1240 20 (2)

MYERS PARK MEML MUNI See CARTHAGE

NEOSHO MUNI 2 SW
1215 26 (2) S3 F2 U-1 FSS: JOPLIN
Remarks: Surnd by P-lines.

NEVADA MUNI 3 NE
882 H31 (1) BL4 S5 F4 U-1 FSS: KANSAS CITY (DL)

NOAHS ARK See WALDRON

NOVELTY
ROGERS 2 S
847 22 (1) FSS: KIRKSVILLE
Remarks: P-line N.

OSAGE BEACH
LINN CREEK-GRAND GLAIZE MEML 3 SW
876 H29 (1) *L4 S5 F4 FSS: VICHY

OWEN FLD See SEYMOUR

AIRPORT DIRECTORY

PACIFIC
TRI-COUNTY 2 S
400 22 (1) FSS: ST LOUIS

PARRIS See **GORIN**

PASLEY See **ROSCOE**

PERRYVILLE MUNI 9 N
372 H36 (2) BL4 S5 F4 FSS: CAPE GIRARDEAU
Remarks: 200' overrun each end IR-19L.

PETERSON FLD MUNI See **TARKIO**

PIEDMONT MEML 2 NW
540 27 (1) F2 FSS: CAPE GIRARDEAU

PINEVILLE
EDWARDS RANCH 2 NE
1000 22 (1) FSS: JOPLIN

PITTS See **ST JOSEPH**

PLEASANT HILL
INTER-STATE 3 W
960 20 (1) F2

POPLAR BLUFF
FIELDS MEML 3 E
330 H40 (1) BL4 S3 F4 U-1
FSS: CAPE GIRARDEAU
Remarks: E/W rnwy soft when wet.

PRITCHETT See **VIDA**

PROTEM
CLARK FLD 3 SE
800 33 (1) S3

RAYFIELD See **ELLINGTON**

REEDS SPRINGS
KIMBERLING CITY 12 S
1000 36 (1)

REPUBLIC
WESTPORT 2 NW
1265 26 (1) S3 F2
Remarks: Poles N end.

RICH HILL
SCHOOLEY Adj E
780 26 (1) S1 F3
Remarks: P-line S.

ROCKPORT
LUHRS 3 S
900 16 (1)
Remarks: Deep ditch N.

ROGERS See **NOVELTY**

ROLLA-NATIONAL *IFR* 11 N
1148 H55 (3) B*L4 F4 FSS: VICHY on F 1
Remarks: 93' radar twr (75' lgtd) lctd 1800' NNE of NW end rnwy 13-31.

ROSCOE
PASLEY 1 NW
730 30 (1)
Remarks: P-lines SW.

ROSECRAN MEMORIAL See **ST JOSEPH, ROSECRAN MEMORIAL** in Section IV-A

ST CHARLES
ST CHARLES 4 N
450 H20 (1) L4 S5 F4 U-1
FSS: ST LOUIS (LC PE 1-44[illegible]
Remarks: P-lines N, NW, SE. 3000' strip avail. Rnwy lgts after 2400 on prior req.

ST CHARLES SMARTT FLD 9 E
438 H20 (2) S5 F4 FSS: ST LOUIS
Remarks: "X" on clsd rnwys where tests conducted.

ST JOSEPH
EASTSIDE 1 E
1060 H22 (1) S1 F4 FSS: ST JOSEPH (LC AD 4-2[illegible]
Remarks: 760' twr approx 1000' E & 3000' S of S end rnwy.

PITTS 3 SW
822 14 (1) FSS: ST JOSEPH

ROSECRAN MEMORIAL See Section IV-A

ST LOUIS (CREVE COEUR)
ARROWHEAD 12 NW
450 H24 (1) L4 S5 F4 U-1
FSS: ST LOUIS (LC PE 1-44[illegible]
Remarks: P-line S.

LAMBERT-ST LOUIS MUNI See Section IV-A

LOBMASTER 16 W
460 H20 (1) L4 S5 F4 U-1
FSS: ST LOUIS (LC PE 1-44[illegible]
Remarks: P-line S. 10' levee N. 3200' strip avbl. Lgts out 12 PM. Special Air Traffic Rules - Part 93, Subpart G in effect.

SPIRIT OF ST LOUIS 23 W
511 H51 (1) F4 FSS: ST LOUIS (LC PE 1-44[illegible]
Remarks: Special Air Traffic Rules - Part 93, Subpart G in effect. Arpt temprly closed.

WEISS 10 SW
442 H29 (1) L4 S5 F4 U-1 FSS: ST LOUIS [illegible]
Remarks: Rgt tfc E, N. P-line N.

SALEM MEML 5 SW
1210 H27 (1) L4 F4 FSS: [illegible]

SCHOOLEY See **RICH HILL**

AIRPORT DIRECTORY

)ALIA MEM 2 E
908 H20 (1) BL4 F4 U-1 FSS: COLUMBIA
Remarks: Use hard surface rnwy only; 3600' strip avail.

/Y See **HARRISONVILLE**

'MOUR
WEN FLD 3 NE
1600 30 (2) S3 F2 FSS SPRINGFIELD
Remarks: Rolling. Land at own risk.

LBINA 2 N
765 18 (1) FSS: KIRKSVILLE

LBY CO See **SHELBYVILLE**

LBYVILLE
HELBY CO 1 NW
766 20 (1) F2 U-1 FSS: KIRKSVILLE
Remarks: P-line S.

ESTON-MEML MUNI 2 NE
315 H35 (1) BL4 S5 F4 U-1 FSS: CAPE GIRARDEAU

HAVEN See **WARRENSBURG**

RIDERS RETREAT See **WHEATLAND**

TER-MEML 1 NW
846 21 (2)
Remarks: P-line N.

IT OF ST LOUIS See **ST LOUIS**

RTSMAN ARPK See **CLINTON**

INGFIELD
)WNTOWN Adj E
1374 H24 (1) S5 F4
FSS: SPRINGFIELD (LC UN 2-3588)
Remarks: Fence W. 2700' strip avbl.

'RINGFIELD MUNI See Section IV-A

TE LINE See **KANSAS CITY**

ELE MUNI 2 NW
258 H40 (2) BL4 S5 F4 FSS: DYERSVILLE

GENEVIEVE-FLYING CLUB Adj E
380 21 (1) F2 FSS: CAPE GIRARDEAU

LIVAN-MEML 1 SW
987 H21 (1) BL4 S1 F4 U-1 FSS: VICHY
Remarks: Wire NW.

ERSVILLE
LLS 1 NW
~~1250~~ 18 (2) S5 F2 FSS: VICHY

LE ROCK See **GOLDEN**

TARKIO
PETERSON FLD MUNI 1 NE
920 H20 (1) L2 F2 FSS: ST JOSEPH
Remarks: P-line N. 3950 strip avbl. Fuel Apr-Oct.

TIMBERLINE See **CASSVILLE**

TRI-COUNTY See **PACIFIC**

TROUTMAN See **BROOKFIELD**

UNIONVILLE 1 W
1073 25 (1)
Remarks: P-line N and S.

VANDALIA ARPK 2 E
764 26 (1) BL4 FSS: QUINCY
Remarks: Lgts oper sunset-10 PM.

VIDA
PRITCHETT 9 S
1200 16 (1) S5 FSS: VICHY

VILLNAVE See **BELTON**

WALDRON
NOAHS ARK 1 NW
755 30 (1) S3 F2

WARRENSBURG
SKY HAVEN 3 NW
799 28 (3) BL4 S5 F4 FSS: COLUMBIA
Remarks: P-lines S, SE, SW.

WARRENTON-O'SULLIVAN 2 NE
20 30 (1) F2
Remarks: Soft-wet. Land at own risk.

WARSAW 2 W
690 25 (2)
Remarks: P-line S.

WATSON
GARST 1 W
900 23 (1)
Remarks: P-line S, fence N.

WEISS See **ST LOUIS**

WEST PLAINS MUNI 1 NW
992 H33 (1) L4 F2 FSS: HARRISON, ARK
Remarks: P-line SE.

WESTPORT See **REPUBLIC**

WHEATLAND
SKYRIDERS RETREAT 4 SE
900 32 (1)
Remarks: P-line SE.

WILEY'S AIRSTRIP See **GORIN**

WILLOW SPRINGS-MEML 1 E
1252 25 (2) F2 FSS: HARRISON, ARK

AIRPORT DIRECTORY

WRIGHT FLD See BRAYMER

WULFF HARBOR See GRAVOIS MILLS

YOCOM See ANDERSON

MONTANA

ALZADA
FOSTER Adj NW
3425 25 (2) U-1
Remarks: P-line E.

ANACONDA 3 E
5010 40 (1) S1 F4 U-1 FSS: BUTTE

ANDERSON See WOLF POINT

AUGUSTA 2 NE
4145 43 (1) FSS: GREAT FALLS

BABB 1 SE
4500 38 (1) FSS: CUT BANK

BAKER MUNI 1 SE
2990 33 (3) L4 S5 F4 FSS: MILES CITY
Remarks: P-line S, W, NW. Soft when wet.

BARRETT FLD See CASCADE

BIG SANDY 1 S
2700 25 (2) L4 F2 FSS: GREAT FALLS
Remarks: P-line N.

BIG TIMBER 2 SW
4482 48 (3) BL2 S5 F4 FSS: LIVINGSTON

BILLINGS
LOGAN FLD See Section IV-A

BOULDER 1 S
5068 39 (1) FSS: BUTTE
Remarks: Land uphill to NW.

BOZEMAN
GALLATIN FLD *IFR* 7 NW
4461 H65 (3) BL4 S5 F4 FSS: BOZEMAN on Fld
Remarks: SW taxi strip to rnwy 34 restricted to 7500 lbs.

BRADY
WOODS 18 E
3350 20 (1) F2 FSS: GREAT FALLS

BRIDGER MUNI Adj W
3720 H30 (1) S1 F4 U-1 FSS: BILLINGS
Remarks: Rgt tfc N. Unattended.

BRIGGS See DELL

BROWNING
BROWNING 5 NW
4650 40 (1) FSS: CUT BANK

3C RANCH 14 N
4500 46 (1) FSS: CUT BANK

BUTTE
SILVER BOW CO *IFR* 3 S
5554 H68 (3) BL4 S5 F4 U-1 FSS: BUTTE on Fld

CARTER Adj SW
3000 22 (1) FSS: GREAT FALLS
Remarks: P-line WSW.

CASCADE
CASCADE 1 W
3580 25 (4) FSS: GREAT FALLS

BARRETT FLD 3 SW
3350 22 (1) FSS: GREAT FALLS

CHESTER
LIBERTY CO 1 W
3169 H32 (1) BL4 F4 U-1 FSS: CUT BANK
Remarks: Rgt tfc W.

CHINOOK MUNI 1 W
2410 H39 (1) BL4 F2 U-1 FSS: GREAT FALLS

CHOTEAU 1 NE
3945 27 (2) BL4 S5 F2 U-1 FSS: GREAT FALLS

CHRISTENSEN FARM See DAGMAR

CIRCLE
McCONE CO 1 E
2424 26 (2) BL4 F2 FSS: MILES CITY
Remarks: Rough and soft when wet.

CLEARWATER See OVANDO

CLINTON
ELLIOTT FLD 3 SE
3540 38 (1) FSS: MISSOULA

COALWOOD
JANSSON AIR STRIP 4 E
3350 32 (1) F2 FSS: MILES CITY
Remarks: Fence NW end rnwy.

COCKRELL See GALATA

COHAGEN
PLUHAR 7 NE
2750 20 (2) F2
Remarks: P-line N, S.

COLUMBUS 1 SE
3575 H26 (1) L4 S1 F2 U-1 FSS: BILLINGS
Remarks: P-line W. 300′ overrun E end. Bcn and rnwy lgts on call.

CONDON (USFS) Adj SW
3690 26 (1) U-1 FSS: MISSOULA

CONRAD 1 W
3537 H36 (2) BL4 F4 U-1 FSS: CUT BANK

AIRPORT DIRECTORY

BERTSON 1 E
1960 26 (3) BL4 S5 F4 U-1 FSS: MILES CITY
Remarks: P-lines SE. Soft when wet.

BANK IFR 3 SW AOE
3854 H62 (2) BL4 S5 F4 U-1 FSS: CUT BANK on Fld

MAR
IRISTENSEN FARM 5 E
1975 20 (2) F4
Remarks: P-line W.

L See LUSTRE

R LODGE CITY-CO 1 W
3886 H38 (1) L4 FSS: BUTTE
Remarks: Fences both ends & trees S of E-W rnwy.

IGGS 4 NW
3825 44 (1) F2 U-1 FSS: DILLON

LL FLIGHT STRIP 1 NW
3114 H70 (1) BL2 FSS: DILLON
Remarks: Ruf. Large cracks in rnwy.

TON MUNI 2 S
3850 26 (2) S F2 FSS: LEWISTOWN

)N
LLINGER 4 N
4215 26 (2) F2 FSS: CUT BANK

ON IFR 4 NE
4238 H40 (3) BL2, 4 S5 F4 FSS: DILLON on Fld

ON
LANDER 6 NE
4810 25 (3) S1
Remarks: P-line W, NW.

JNG 14 NE
4810 24 (2)

MOND 3 SW
4245 26 (1) BL2 FSS: MISSOULA
Remarks: Ruf.

ON 1 E
4695 31 (1) F2 FSS: GREAT FALLS
Remarks: P-line S.

AKA
LAKA 4 SE
4430 29 (1) FSS: MILES CITY

ER 8 NW
4490 10 (1) F2 FSS: MILES CITY
Remarks: P-line NW.

TRAIL PARK See LINCOLN

)TT FLD See CLINTON

ENNIS
SPORTSMAN'S FLD 1 NW
4985 36 (1) F2 FSS: BOZEMAN
Remarks: P-line S. Use at own risk.

ETCHART FLD See TAMPICO

ETHRIDGE
TORGERSON 1 E
3535 22 (1) F2 U-1 FSS: CUT BANK
Remarks: P-lines E, W. Use at own risk.

EUREKA 2 NW
2680 29 (1) F2 FSS: MISSOULA
Remarks: Bcn and rnwy lghts oper on request.

FAIRFIELD MUNI 1 NE
3990 36 (2) F4 FSS: GREAT FALLS
Remarks: Soft-wet. P-line SSW.

FAIRGROUNDS ARPK See HARDIN

FLATHEAD See KALISPELL

FLOYD RANCH AIRSTRIP See OPHEIM

FORSYTH MUNI 3 E
2728 H25 (3) BL2 F2 FSS: MILES CITY

FORT BENTON 1 NE
2886 H34 (3) BL4 S5 F3 U-1 FSS: GREAT FALLS
Remarks: Rgt tfc NE.

FORT PECK 1 W
2295 33 (2)

FOSTER See ALZADA

GALATA
COCKRELL 5 S
3200 22 (2) F2

GALLATIN FLD See BOZEMAN

GALLATIN GATEWAY
NINE QUARTER CIRCLE RANCH 32 S
7000 38 FSS: MISSOULA

GARDINER 2 NW
5300 35 (1) S1 FSS: LIVINGSTON

GERALDINE
GERALDINE 1 S
3200 H29 (1) S1 F2 U-1 FSS: GREAT FALLS
Remarks: P-line W. Ruf.

GOLDHANN RANCH 1 SE
3200 20 (1) F2 FSS: GREAT FALLS

GLASGOW MUNI 2 NE
2298 H50 (2) BL4 S5 F4 U-1 FSS: MILES CITY

GLENDIVE 2 NE
2128 H45 (2) BL4 S5 F4 U-1 FSS: MILES CITY

AIRPORT DIRECTORY

GOLDHANN RANCH See GERALDINE

GRASSRANGE
N (BAR) RANCH 13 NE
4350 35 (2)

GREAT FALLS INTL See Section IV-A

HAMILTON 1 NE
3640 42 (1) BL4 S5 F4 U-1 FSS: MISSOULA

HANSON See SCOBEY

HARDIN
FAIRGROUNDS ARPK 1 S
2911 H24 (1) S3 F4 U-1 FSS: BILLINGS

HARDIN MUNI 2 SE
3040 35 (2) FSS: BILLINGS

HARLEM 2 N
2560 H35 (2) F2 FSS: GREAT FALLS

HARLOWTON MUNI 2 NW
4214 31 (3) BL2 S1 F2 U-1 FSS: LEWISTOWN

HAVRE
HAVRE CITY-CO 3 SW AOE
2589 H48 (2) BL4 S5 F4 U-1 FSS: GREAT FALLS

SANDS RANCH 2 SW
2600 20 (1) F2 FSS: GREAT FALLS

HAUGEN See PEERLESS

HAXBY
HOOLIE 5 NW
2600 20

NELSON 10 E
2425 25 (2) S1 F2

HELENA
HELENA COUNTY-CITY See Section IV-A

OX BOW RANCH 23 N
3635 48 (1) FSS: HELENA (LC 442-8110)
Remarks: P-line N.

HELLINGER See DEVON

HIGGINS BROS See RINGLING

HINGHAM
LINCOLNS FLD 9 SE
3000 20 (2)

HINSDALE 1 SE
2180 21 (2)
Remarks: P-line N.

HIRSCHY-JACKSON See JACKSON

HOLLIDAY RCH See MARTINSDALE

HOOLIE See HAXBY

HOT SPRINGS 2 E
2763 25 (1) BL4 F2 FSS: MISSOULA

JACKSON
HIRSCHY-JACKSON 4 N
6400 50 (1) F2 FSS: DILLON
Remarks: P-line WSW.

JANSSON AIR STRIP See COALWOOD

JORDAN 2 NW
2637 36 (2) F2 U-1 FSS: MILES CITY
Remarks: Soft when wet.

KALISPELL
FLATHEAD CO *IFR* 7 N
2971 H56 (3) BL6 S5 F4 U-1 FSS: MISSOULA

KREIDER RANCH See SAND SPRINGS

KREMLIN
SORENSON 3 SW
2810 23 (1) FSS: CUT BANK
Remarks: P-line N.

KUECKS FARM See LUSTRE

LANHGUS See MELVILLE

LAUREL MUNI 2 N
3525 H28 (3) S1 F2 FSS: BILLINGS
Remarks: P-line S.

LAVINA 1 NW
2867 35 (1)

LEWISTOWN MUNI *IFR* 2 SW
4197 H56 (3) BL4 S5 F4 FSS: LEWISTOWN AFLD

LIBBY (USFS) 1 NE
2096 27 (1) L3 FSS: MISSOULA

LIBERTY COUNTY See CHESTER

LINCOLN
ELK TRAIL PARK 8 NE
5100 38 (1) FSS: HELENA

LINCOLN 1 E
4597 40 (1) FSS: HELENA
Remarks: Closed winter months.

7-UP RANCH 5 NE
4600 15 (1) FSS: HELENA
Remarks: P-line E end rnwy.

LINCOLNS FLD See HINGHAM

LINDSAY
SHEELY 10 W
3050 15 F2
Remarks: P-line N.

AIRPORT DIRECTORY

NGSTON
SSION FLD 5 NE
455c H42 (3) L2 S5 F4 FSS: LIVINGSTON on Fld
Remarks: Code bcn. 5300' strip avbl.

GE GRASS
)PE 8 SE
3734 30 (1) S3 F2 FSS: SHERIDAN

AN FLD See BILLINGS, LOGAN FLD in Section IV-A

TRE
.HL 2 S
3750 26 (2) F2

ECKS FARM 10 W
.550 28 (1) F2

FERT 5 W
1750 25 (2)
Remarks: P-line N & E.

UBAK 6 N
840 15 (1) F2
Remarks: Fence E.

'A
LTA 1 SW
280 H28 (2) BL2, 4 S5 F4 U-1 FSS: GREAT FALLS
Remarks: Rgt tfc E, SE.

S 10 E
2350 22 (1) FSS: GREAT FALLS

INSDALE
LIDAY RCH 7 NW
000 20 (1) F2

NE COUNTY See CIRCLE

OW CREEK (USFS) Adj NE
970 30 (1) FSS: MISSOULA

INE LAKE Adj E
090 26 (2) L4

ILLE
IHGUS 10 SW
'00 37 (1)
R See EKALAKA

CITY *IFR* 2 NW
.28 H63 (2) BL4 S5 F4 FSS: MILES CITY on Fld
emarks: Rnwy 22 threshold displaced 708' SW.

AL CO See SUPERIOR

N FLD See LIVINGSTON

JLA COUNTY See Section IV-A

JA
HUA 1 E
70 28 (1)
marks: P-line W.

WHISENNAND 8 SW
2150 19 (2) F2
Remarks: P-line W, N, E.

N (BAR) RANCH See GRASSRANGE

NELSON See HAXBY

NINE QUARTER CIRCLE RANCH See GALLATIN GATEWAY

NORDHAGEN RANCH See WESTBY

NYLANDER See DODSON

OHS See MALTA

OLFERT See LUSTRE

OPHEIM
FLOYD RANCH AIRSTRIP 8 WSW
3100 25(1) F2 FSS: MILES CITY

OPHEIM Adj W
3260 31(3) BL4 F2 FSS: MILES CITY

OVANDO
CLEARWATER 5 NW
4000 31 (2) FSS: MISSOULA

OX BOW RANCH See HELENA

PEERLESS
HAUGEN 12 S
2900 26 (1)

PEERLESS Adj NE
2835 16 (1)

PLAINS 1 NW
2460 29 (2) BL4 F4 FSS: MISSOULA
Remarks: Fuel in emgcy only.

PLENTYWOOD
SHER-WOOD 1 NE
2250 H32 (4) BL4 S3 F2 U-1 FSS: MILES CITY

PLUHAR See COHAGEN

POLEBRIDGE
QUARTER CIRCLE MC 3 N
3600 31 (1) FSS: MISSOULA

SONDRESON 5 SW
3650 26 (1) FSS: MISSOULA

POLSON 1 W
2932 25 (1) BL4 S5 F4 U-1 FSS: MILES CITY

POPE See LODGE GRASS

POPLAR Adj NE
2000 37 (2) BL4 S1 F4 U-1 FSS: MILES CITY

QUARTER CIRCLE MC See POLEBRIDGE

AIRPORT DIRECTORY

RED LODGE Adj NW
5762 H40 (2) BL4 S3 F2 U-1 FSS: BILLINGS

RESERVE 1 S
1970 30 (3)

RICHEY 1 S
2494 30 (1)
Remarks: Unattended.

RICHLAND 1 NW
3000 26 (3)

RINGLING
HIGGINS BROS Adj SE
5350 25 (3) FSS: BOZEMAN
Remarks: P-line NNW. Dip W end of rnwy.

RONAN 3 N
3089 34 (1) BL4 F2 FSS: MISSOULA

ROSS INTL See SWEETGRASS

ROUNDUP 2 N
3490 H34 (3) BL4 S5 F4 U-1 FSS: BILLINGS

RYEGATE 1 SE
3053 34 (1)

ST IGNATIUS 1 N
2990 26 (1) S1 FSS: MISSOULA
Remarks: P-line W.

SAND SPRINGS
KREIDER RANCH Adj S
3150 12

SANDS RANCH See HAVRE

SAUBAK See LUSTRE

SCHAFER Adj E
4855 33 (1) F3 FSS: CUT BANK

SCOBEY
HANSON 13 SE
2300 18 (1) FSS: MILES CITY

SCOBEY 1 NW
2432 H28 (3) BL4 S1 F4 U-1 FSS: MILES CITY
Remarks: Unattended.

SEELEY LAKE 1 E
4037 35 (1) FSS: MISSOULA

7-UP RANCH See LINCOLN

SHEELY See LINDSAY

SHELBY 2 N
3425 H37 (2) BL4 S3 F3 U-1 FSS: CUT BANK

SHER-WOOD See PLENTYWOOD

SIDNEY 1 SW
1977 H42 (1) BL2, 4 S3 F2 U-1 FSS: MILES CITY
Remarks: Rgt tfc SE. Bndry lgts oper on request after 10 PM.

SILVER BOW CO See BUTTE

SONDRESON See POLEBRIDGE

SORENSON See KREMLIN

SPORTSMAN'S FLD See ENNIS

SPOTTED BEAR (USFS) 3 NW
3800 32 (1) FSS: CUT BANK

STANFORD Adj S
4285 24 (2) F2 FSS: LEWISTOWN
Remarks: P-lines ESE.

STEVENSVILLE 2 NE
3620 30 (2) FSS: MISSOULA

SUNBURST Adj NW
3399 26 (2) FSS: CUT BANK
Remarks: Soft when wet.

SUPERIOR
MINERAL CO 3 SE
2777 H34 (1) L4 F2 U-1 FSS: MISSOULA
Remarks: Rgt tfc.

SWEETGRASS
ROSS INTL 1 W
3550 30 (1) F4 U-1 FSS: CUT BANK
Remarks: P-line E.

TAMPICO
ETCHART FLD Adj NW
2100 29

TERRY Adj S
2260 26 (2) FSS: MILES CITY
Remarks: Soft when wet.

THOMPSON FALLS 3 SE
2460 24 (1) BL2 FSS: MISSOULA

3 C RANCH See BROWNING

THREE FORKS Adj SW
4081 34 (2) F2 FSS: BOZEMAN

TIBER DAM Adj SW
3012 26 (1) FSS: CUT BANK
Remarks: Soft when wet.

TORGERSON See ETHRIDGE

TOWNSEND 2 NE
4000 H50 (1) B FSS: HELENA
Remarks: P-line S.

TROY (USFS) 1 NW
2017 26 (1) FSS: MISSOULA

AIRPORT DIRECTORY

:NER Ad| NE
3040 28 (2) F2

N BRIDGES 1 SE
4772 34 (3) F2 FSS: DILLON
Remarks: Fuel emgcy only.

IER Ad| W
3820 35 (3) S1 F3 U-1 FSS: CUT BANK
Remarks: Twr ad| NW apch.

TBY
)RDHAGEN RANCH Ad| W
2100 25 (1) FSS: MINOT
Remarks: P-line N.

ESTBY 4 SE
2100 25 (3) FSS: MINOT
Remarks: P-line W, NW. Maintd summer only.

ENNAND See NASHUA

'EFISH 1 E
3063 31 (1) FSS: MISSOULA
Remarks: Rnwy 11 threshold displaced 550' SE.

'E SULPHUR SPRINGS 3 S
5060 49 (1) FSS: HELENA
Remarks: Soft when wet.

JUX 1 SE
2700 18 (1) *L F3
Remarks: P-line N. W.

ALL 3 N
3110 33 (1) FSS: LIVINGSTON
Remarks: P-line W.

:RED 1 SW
3300 24 (1) BL4 F2 FSS: LEWISTON

)M 2 SW
5133 35 (1) F2 FSS: DILLON
Remarks: P-line N.

: POINT
DERSON 1 NW
5040 25 (1) *L4 F2 FSS: MILES CITY
Remarks: Soft when wet. Non standard rnwy & threshold lgts oper on prior phone req.

LF POINT INTL 3 SE
2980 H40 (1) BL4 S5 F4 U-1 FSS: MILES CITY

IS See BRADY

G See DODSON

NEBRASKA

TT See ALMERIA

AINSWORTH MUNI 6 NW
2580 H77 (1) BL4 S5 F4
FSS: OMAHA (1300-0100Z)
FSS: GRAND ISLAND (0100-1300Z)
Remarks: Fuel avbl prior request after 7:00 PM.

ALLIANCE MUNI *IFR* 4 SE
3930 H92 (4) BL4 S5 F4, JP4 FSS: SCOTTSBLUFF (DL)

ALMERIA
ABBOTT 4 NW
2365 31 (1)

ARAPAHOE 1 N
2300 23 (1) FSS: IMPERIAL

ARMSTRONG BROS See BIG SPRINGS

ARROW See LINCOLN

ARTHUR MUNI 1 SW
3646 27 (1)

ASHLAND
LINOMA BEACH 3 NE
1070 16 (1) B FSS: LINCOLN

ATKINSON
STAR RANCH 14 S
2225 17 (1) FSS: GRAND ISLAND

STUART-ATKINSON MUNI 4 NW
2130 32 BL4 S3 F4 FSS: GRAND ISLAND

AUBURN MUNI 2 E
932 28 (2) BL4 F4 U-1 FSS: LINCOLN
Remarks: P-line NE.

BASSETT MUNI 2 SW
2346 H28 (2) F2 FSS: GRAND ISLAND

BAYARD MUNI 1 S
3752 27 (2) FSS: SCOTTSBLUFF

BEAL See BRULE

BEATRICE MUNI *IFR* 2 N
1318 H44 (2) BL4 S5 F4 U-1 FSS: LINCOLN (DL)
VFR ADV: LINCOLN APP CON 123.7 124.8 120.4
108.4T DEP CON 119.8
Remarks: Turf soft when wet.

BEAVER CITY
HEWETT'S 2 NE
2275 26 (3)
Remarks: P-line W.

BENKELMAN
JONES 1 NW
3126 27 (1) F3 FSS: IMPERIAL
Remarks: P-line S.

AIRPORT DIRECTORY

BIG SPRINGS
ARMSTRONG BROS 3 NW
3610 26 (1) F2

NEWMAN 3 SE
3528 29 (1) F3 U-1

BINGHAM
SPADE RANCH 17 N
3860 28 (3) F2 U-1

BLAIR MUNI 3 NW
1079 27 (2) BL4 F2 FSS: OMAHA

BLOOMFIELD MUNI 2 SW
1673 23 (1) BL4 F2
Remarks: Soft when wet.

BLUE AERO INC See MILFORD

BREWSTER FLD See HOLDREGE

BRIDGEPORT MUNI 3 NW
3693 30 (2) FSS: SCOTTSBLUFF
Remarks: P-line S.

BROKEN BOW MUNI 2 N
2530 H25 (1) BL4 S5 F4 U-1
FSS: OMAHA (DAYS) GRAND ISLAND (LD NIGHTS)

BROWN'S See WEEPING WATER

BRULE
BEAL 1 SW
3280 30 (1)
Remarks: P-line E.

BRUNING
BRUNING STATE 7 E
1544 H32 (1) B FSS: LINCOLN

HAWKS FLD 3 SE
1560 25 (1) S1 F2 U-1 FSS: LINCOLN
Remarks: P-line N.

BURWELL MUNI 1 SW
2181 34 (1) BL4 F5 FSS: GRAND ISLAND

BUSKE See LISCO

CAMBRIDGE MUNI 1 N
2415 27 (1) BL4 F2 FSS: IMPERIAL

C A M P See FULLERTON

CAVANAUGH See MINDEN

CENTRAL CITY MUNI 2 W
1699 31 (1) L4 F2 FSS: GRAND ISLAND
Remarks: Unattended.

CHADRON
CHADRON MUNI *IFR* 4 W
3296 H45 (2) BL4 S5 F4 FSS: CHADRON on Fld

O and N 1 NE
3296 31 (3) F2 FSS: CHADRON (LC HE 2-3[illegible]

CHAMBERS
PERKINS MEML AIRPARK 1 SE
2127 25 (2) F2 FSS: GRAND ISLAN
Remarks: Use strips.

CLAY CENTER MUNI 2 E
1800 16 (1) S1 FSS: GRAND ISLAN
Remarks: P-line N. Not maintd.

COLE MEML See MERRIMAN

COLUMBUS MUNI 1 NE
1442 H40 (1) BL4 S3 F4 U-1 FSS: CHAD

COZAD MUNI 1 NW
2500 33 (2) BL4 F2 FSS: NORTH PLAT
Remarks: P-line S.

CREIGHTON MUNI 1 NE
1625 24 (2) BL4 F2 FSS: GRAND ISLAN

CRETE MUNI 1 E
1498 24 (2) L4 S5 F2 FSS: LINCOL

CRITCHFIELD See TECUMSEH

CULBERTSON
HOCK 5 N
2800 26 (1) FSS: IMPER
Remarks: P-line N.

CURTIS MUNI 2 NE
2680 28 (2) BL4 F2 FSS: NORTH PLAT
Remarks: Unattended.

DAVID CITY MUNI 2 S
1614 23 (2) B S1 F2 FSS: LINCOL
Remarks: Soft when wet.

DOHNER See NELSON

DUDDEN See VENANGO

ELGIN 1 N
1919 14 (1) S3 F2 FSS: GRAND ISLAN
Remarks: P-line NW.

ELWOOD
JOHNSON LAKE 7 N
2625 30 (1) F2

ELY See GUIDE ROCK

ENDERS
SMITH 3 NE
3280 25 (1) S2 F4 FSS: IMPERIAL

EPPLEY AIRFLD See OMAHA, EPPLEY AIRFLD in Section [illegible]

AIRPORT DIRECTORY

BURY MUNI 3 NE
379 H26 (1) BL4 S5 F4 U-1 FSS: LINCOLN
Remarks: Rwy 17 ruf.

MONT-STATE 3 SE
639 H70 (2) BL4 F2 FSS: GRAND ISLAND

S CITY MUNI 1 NE
94 25 (2) BL4 S5 F4 FSS: ST JOSEPH

HTLAND See OMAHA

ONT MUNI 1 NW
03 H38 (1) BL4 S5 F4 U-1 FSS: OMAHA
emarks: Rgt tfc S, SE, W.

ERTON
MP 1 N
620 23 (1) *L4 FSS: GRAND ISLAND

ON
RDON MUNI 1 E
549 H31 (2) BL4 S5 F4 U-1 FSS: CHADRON
emarks: N S turf runway abandoned P-line N, SW.

ITON 27 SE
500 30 (2) FSS: CHADRON

ENBURG MUNI 1 SE
557 33 (2) L4 S1 F2 FSS: NORTH PLATTE

D ISLAND MUNI See Section IV-A

T COUNTY MUNI See HYANNIS

ANT MUNI 1 N
421 23 (1) BL4 S1 F4 FSS: IMPERIAL

DMAN See NEBRASKA CITY

E ROCK
1 NW
720 28 (1) *L2 F4

ISON-SKYRANCH 1 NE
363 30 (1) FSS: CHADRON

INGTON MUNI 2 SE
383 26 (2)

ARD-STATE 1 NE
317 H77 (2) BL4 F2 FSS: GRAND ISLAND
emarks: N 4200' of rnwy lgtd.

INGS MUNI *IFR* 2 NW
944 H56 (1) BL4 S5 F4 U-1
FSS: GRAND ISLAND (DL)
emarks: NW 1600' unlgtd. Useable dalt hrs only.

S FLD See BRUNING

SPRINGS MUNI Adj SW
331 28 (1) *L4 F2 FSS: CHADRON
emarks: Bcn on prior req.

HEBRON MUNI 1 S
1465 31 (3) BL4 S1 F2 FSS: LINCOLN

HEWETTS See BEAVER CITY

HOCK See CULBERTSON

HOLDREGE
BREWSTER FLD 2 NE
2310 H31 (1) BL4 S5 F4 U-1 FSS: GRAND ISLAND

HUMBOLDT MUNI 1 E
993 21 (2) F2
Remarks: P-line NE.

HYANNIS
GRANT CO MUNI Adj NW
3700 26 (1) BL 4 FSS: SCOTTSBLUFF

IMPERIAL MUNI *IFR* 1 SE
3274 H44 (1) BL4 S5 F4 FSS: IMPERIAL on Fld

JOHNSON LAKE See ELWOOD

JONES See BENKELMAN

KEARNEY MUNI 4 NE
2130 H72 (3) BL4 S5 F4, JP4 U-1
FSS: GRAND ISLAND

KIMBALL
KIMBALL MUNI 3 SW
4900 H39 (3) BL4 F4 FSS: SIDNEY

NELSON 12 NW
4950 26 (2) S3 F2 FSS: SIDNEY

LAKE McCONAUGHY STATE See OGALLALA

LAKESIDE
MARK ORR RANCH 19 N
3800 19 (1)

LAMPE See PENDER

LAUREL MUNI Adj N
1475 28 (1)

LEE BIRD FLD MUNI See NORTH PLATTE

LEXINGTON MUNI 1 NW
2400 H35 (2) BL4 F4 FSS: NORTH PLATTE
Remarks: Edges and intersection on NE/SW rnwy soft ruf.

LINCOLN
ARROW 4 NE
1160 H33 (2) *L4 S5 F4 FSS: LINCOLN (LC 466-1994)

LINCOLN MUNI/AFB See Section IV-A

LINOMA BEACH See ASHLAND

AIRPORT DIRECTORY

LISCO
BUSKE 6 NE
3970 26 (3) F2

LODGEPOLE MUNI 1 E
3800 40 (1) B*L1 S5 F5 FSS: SIDNEY
Remarks: Ant W.

LYNCH
WOOLF 2 SE
1395 26 (3) F2 FSS: GRAND ISLAND
Remarks: P-line N.

MARK ORR RANCH See **LAKESIDE**

MARQUETTE-CARLSON 1 SE
1810 23 (3) F2 FSS: GRAND ISLAND
Remarks: P-line N.

MARTIN FLD See **SOUTH SIOUX CITY**

McCOOK
McCOOK MUNI 2 E
2570 H40 (1) BL4 S5 F4 FSS: NORTH PLATTE

McCOOK-STATE 7 NW
2784 H75 (2) FSS: IMPERIAL

MERRIMAN
COLE MEML Adj NE
3255 H24 (1) S1 F2 FSS: CHADRON

MILFORD
BLUE AERO INC 4 SW
1530 26 (1) F2

MILLER FIELD See **VALENTINE**

MINDEN
CAVANAUGH 3 NW
2200 24 (1) F2 FSS: GRAND ISLAND
Remarks: P-line S.

MINDEN MUNI 1 NE
2156 23 (2) BL4 S1 F2 FSS: GRAND ISLAND
Remarks: P-line S.

MITCHELL MUNI 1 S
3965 31 (2) *L1 S1 F4 FSS: SCOTTSBLUFF
Remarks: Use strips.

MODISETT See **RUSHVILLE**

MULLEN MUNI 1 W
3260 19 (1) L4 F2 FSS: NORTH PLATTE

NEBRASKA CITY
GRUNDMAN 1 SW
1060 24 (1) L4 F4 FSS: LINCOLN

NELIGH MUNI 1 SW
1745 27 (2) BL4 S1 F2 FSS: GRAND ISLAND
Remarks: Ruf gopher holes. P-line SE.

NELSON
DOHER 1 N
1760 32 (1) *L4 F4 FSS: GRAND ISLAND

NELSON See **KIMBALL**

NEWMAN See **BIG SPRINGS**

NORFOLK
STEFAN FLD MUNI *IFR* 3 SW
1571 H58 (2) BL4 F4 FSS: SIOUX CITY

NORTH OMAHA See **OMAHA**

NORTH PLATTE
LEE BIRD FLD MUNI *IFR* 3 SE
2779 H59 (3) BL4 S5 F4 U-1
FSS: NORTH PLATTE
Remarks: Dike S & W 700' overrun on NW end.

O AND N See **CHADRON**

OGALLALA
LAKE McCONAUGHY STATE 9 NW
3276 26 (1) F2 FSS: NORTH PLATTE

SEARLE FLD 2 W
3250 30 (All way) B S5 F4 U-1 FSS: NORTH PLATTE
Remarks: P-line SE. Silo SW.

OMAHA
EPPLEY AIRFLD See Section IV-A

FLIGHTLAND 9 NW
1325 H31 (1) S3 F4 FSS: OMAHA
Remarks: P-line both ends of rnwy. Major power plant recs

NORTH OMAHA 7 NW
1322 26 (3) *L4 S3 F4 U-1 FSS: OMAHA (LC 341-6017)
Remarks: Rgt tfc W, N.

SOUTH OMAHA 7 SW
1069 27 (2) L4 S5 F5 U-1 TPA: 600'
FSS: OMAHA (LC 341-6017)
Remarks: P-line N, NW. Use strips.

O'NEILL MUNI 2 NW
2030 H35 (1) BL4 F4 FSS: GRAND ISLAND
Remarks: P-lines SW.

ORD MUNI 2 NW
2060 31 (2) BL4 S1 F4 U-1 FSS: GRAND ISLAND
Remarks: Unattended.

OSHKOSH MUNI Adj SW
3382 27 (1) BL4 S1 F4 FSS: SIDNEY

OXFORD 2 W
2150 26 (1) F3
Remarks: Unattended.

PAPILLION, SOUTH OMAHA See **OMAHA, SOUTH OMAHA**

AIRPORT DIRECTORY

DER
MPE 1 NE
323 22 (1) S3 F2
Remarks: P-line NW, SE. Unattended.

KINS MEML ARPK See CHAMBERS

AND See SARGENT

TER MUNI Ad, NW
387 22 (4) S1 FSS: SIDNEY
Remarks: Unattended.

CLOUD MUNI 2 NE
770 26 (1) FSS: GRAND ISLAND
Remarks: Fence Ad, S.

IBLICAN CITY MUNI 1 SE
930 30 (1) FSS: GRAND ISLAND

VILLE
DISETT 2 NE
750 30 (4) BL4 F4 FSS: CHADRON

ENT
RGENT MUNI 1 E
313 24 (1) BL4 F2 FSS: GRAND ISLAND
emarks: Unattended.

LAND 5 NW
535 24 (1) FSS: GRAND ISLAND

IA MUNI 2 W
930 22 (1) FSS: GRAND ISLAND
emarks: P-lines N.

TSBLUFF MUNI *IFR* 3 E
961 H83 (3) BL4, 11 S5 F5 U-1
emarks: REIL avbl.

NER-STATE 4 SE
FSS: SCOTTSBLUFF on Fld
315 H69 (3) BL4 F2 FSS: OMAHA

.E FLD See OGALLALA

Y MUNI *IFR* 3 S
00 H45 (1) BL4 S5 F4 FSS: SIDNEY on Fld
emarks: 100' wide NW SE rnwy pavement centered in 300' wide strip lgtg. Threshold lgts 450' from pavement at SE end and 70' at NW end.

See ENDERS

OMAHA See OMAHA

SIOUX CITY
TIN FLD 2 W
00 H40 (1) *L4 S5 F4 U-1
FSS: SIOUX CITY (LC 8-1060)
marks: P-line SE. Rgt tfc SE.

RANCH See BINGHAM

SPRINGVIEW MUNI Ad, NE
2550 22 (1) F2 FSS: GRAND ISLAND
Remarks: Unattended.

STAR RANCH See ATKINSON

STEFAN FLD MUNI See NORFOLK

STROMSBURG Ad, NE
1690 29 (1) F4 FSS: GRAND ISLAND
Remarks: W side of rnwy lgtd on request.

STUART-ATKINSON See ATKINSON

SUPERIOR MUNI 2 N
1720 31 (2) BL4 F2 FSS: GRAND ISLAND

TECUMSEH
CRITCHFIELD 4 N
1220 25 (1) L2 F2 FSS: LINCOLN
Remarks: Unattended.

THEDFORD MUNI 2 E
2820 27 (1) F2
Remarks: Unattended.

TRENTON MUNI 1 NW
2796 26 (2) BL4 F2 FSS: IMPERIAL
Remarks: P-line SE. Unattended.

VALENTINE
MILLER FLD 1 S
2586 H50 (2) BL4 S1 F4 U-1
FSS: OMAHA (DAYS) PIERRE (LD NIGHTS)

VENANGO
DUDDEN Ad, NW
3603 44 (1) BL S1 U-1 FSS: IMPERIAL
Remarks: Unattended. 91 96 fuel avbl emgcy. Soft when wet.

VINTON See GORDON

WAHOO MUNI 2 NE
1223 25 (2) BL4 F2 FSS: LINCOLN
Remarks: P-line SW.

WALLACE MUNI 1 S
3100 26 (1) FSS: IMPERIAL

WAYNE MUNI 2 E
1435 30 (2) BL4 S5 F4 U-1 FSS: SIOUX CITY
Remarks: Soft-wet.

WEEPING WATER
BROWN'S 1 E
1183 21 (2) S5 F2 FSS: LINCOLN

WILBER MUNI 1 SW
1400 23 (2)
Remarks: P-line N.

WOOLF See LYNCH

AIRPORT DIRECTORY

YORK MUNI 2 N
1662 H28 (1) BL4 S1 F4 U-1 FSS: GRAND ISLAND
Remarks: 2950' strip avbl.

NEVADA

ASH MEADOWS See LATHROP WELLS

AUSTIN 6 SW
5730 H60 (2) FSS: ELY

BATTLE MOUNTAIN *IFR* 3 SE
4533 H73 (2) BL4 F4 FSS: ELKO

BEATTY 3 SW
3170 55 (1) BL2 FSS: TONOPAH
Remarks: Attended on call.

BOULDER CITY 1 SW
2458 64 (2) FSS: LAS VEGAS
Remarks: P-lines N, NE, NW. Rgt tfc N, NE, NW.

BUSH-LELAND See WENDOVER, UTAH

CAAS See PAHRUMP

CALIENTE
CALIENTE FLGT STRIP 17 SW
4864 H64 (1) FSS: CEDAR CITY
Remarks: Rnwy badly deteriorated.

OXBORROW RANCH 4 NW
4650 28 (1) FSS: CEDAR CITY

CARSON CITY 3 NE
4751 H43 (1) S5 F4 FSS: RENO (LC FA 9-4444)
Remarks: Rgt tfc rnwy 9.

DEETH
MARY'S RIVER RANCH 15 N
5600 25 (3) FSS: ELKO
Remarks: P-line W.

DERBY See LOVELOCK

DESERT ROCK See MERCURY

DOUGLAS COUNTY See MINDEN

DYER 1 E
4899 28 (2) S3 F2 FSS: TONOPAH
Remarks: P-line NW.

ELKO MUNI *IFR* 1 W
5135 H64 (1) BL4 S3 F4 U-1 FSS: ELKO (on Fld)
Remarks: Unmrkd p-lines ENE. P-line SE.

ELY
YELLAND FLD *IFR* 3 NE
6255 H60 (3) BL4 S1 F4 FSS: ELY on Fld

EUREKA 6 NW
5946 48 (1) FSS: ELY

FALLON MUNI 2 NE
3962 H50 (1) BL4 S5 F4 U-1 FSS: LOVELOC
VFR ADV: Ctc twr on 360.2 126.2 20 mi out.

GABBS 3 NW
4678 60 (2) BL4 FSS: TONOPA
Remarks: Ctn-wet. Lgts avail emgcy. Bcn opera on req.

GERLACH Adj N
3950 28 (1) FSS: RE

GOLDFIELD
GOLDFIELD 1 NW
5680 18 (1) FSS: TONOPA

LIDA JUNCTION 14 S
4650 80 (1) FSS: TONOPA

SCOTTY'S JUNCTION 26 SE
4100 31 (1) FSS: TONOPA

HAWTHORNE MUNI 1 N
4254 H48 (1) BL4 S1 F4 FSS: TONOPA
Remarks: Unattended.

I-L RANCH See TUSCARORA

JACKASS ARPK See LATHROP WELLS

JACK CREEK RANCH See TUSCARORA

JACKPOT Adj E
5217 53 (1) L4 F4 FSS: ELK

JEAN 1 SW
2833 45 (1) FSS: LAS VEG

LAS VEGAS
McCARRAN FLD See Section IV-A

THUNDERBIRD FIELD 3 NW
2200 H50 (2) BL4 S5 F4 U-1
FSS: LAS VEGAS (LC 736-15

LATHROP WELLS
ASH MEADOWS 18 SE
2215 33 (1) L4 U-1 FSS: LAS VEGA
Remarks: P-line W.

JACKASS ARPK 1 SW
2640 62 (1) S1 F4 FSS: LAS VEGA
Remarks: Fee-overnite

LIDA JUNCTION See GOLDFIELD

LOVELOCK
DERBY *IFR* 8 SW
3903 H55 (2) BL4 F4 FSS: LOVELOCK on Fld

MARY'S RIVER RANCH See DEETH

McCARRAN FLD See LAS VEGAS, McCARRAN FLD in Section IV-A

AIRPORT DIRECTORY

CURY
:SERT ROCK 3 SW
3200 H50 (1) L4

, 1 SE
4552 42 (1) FSS: TONOPAH

·EN
·UGLAS COUNTY 2 N
3718 H74 (2) B °L4 S: F4 U-1 TPA: 800' AGL
FSS: RENO
Remarks: 6 hr notice required for rnwy lgts.

TELLO 1 NW
5000 58 (1) FSS: SALT LAKE CITY

RTON MUNI 2 N
381 H48 (1) BL2, 4 F2 FSS: LAS VEGAS

)RROW RANCH See CALIENTE

RUMP
AS 6 SE
:750 25 (1)

- - - -

AIRPORT DIRECTORY

ERROL 1 NW
1245 37 (1) F4 U-1 FSS: CONCORD
Remarks: Unattended.

FRANCONIA-McKENZIE FLD 2 S
970 22 (1) FSS: LEBANON

GILMANTON IROW WORKS
BESSE FLD 1 NE
1007 18 (1) FSS: CONCORD

GORHAM
LIBBY FIELD 1 NW
820 23 (1) FSS: CONCORD
Remarks: P-lines SE.

GRENIER FLD/MANCHESTER MUNI See MANCHESTER, GRENIER FLD/MANCHESTER MUNI in Section IV-A

GROVETON PAPERS 1 NE
900 23 (1) U-1 FSS: CONCORD

HAMPTON 1 N
100 20 (1) S5 F2 U-1

HAVERHILL
DEAN MEML 4 NE
585 18 (2) S1 F2 U-1 FSS: LEBANON

HOOKSETT-MANCHESTER 2 S
187 19 (1) S3 F2 U-1 FSS: CONCORD

JAFFREY
SILVER RANCH 1 SE
1040 H24 (1) *L4 S3 F4 U-1 FSS: CONCORD

KEENE
DILLANT-HOPKINS *IFR* 2 S
482 H55 (2) BL4 S5 F4, J U-1 FSS: CONCORD

LACONIA MUNI *IFR* 3 NE
552 H35 (2) BL4, 10, 11 S3 F4 U-1
VASI: Runway 8 on request FSS: CONCORD
Remarks: REIL operg rnwy 8 on request.

LAKES REGION See WOLFEBORO

LEBANON-REGIONAL *IFR* 3 SW
580 H55 (2) BL4 ,6 S5 F4 U-1 FSS: LEBANON (on Fld)

LIBBY FIELD See GORHAM

LINCOLN Adj W
835 17 (1) FSS: LEBANON

MANCHESTER GRENIER FLD/MANCHESTER MUNI See Section IV-A

MORSE See WARREN

NASHUA
BOIRE FLD *IFR* 2 NW
193 H35 (1) BL4 S5 F4 U-1 FSS: CONCORD

NEW FOUND VALLEY See BRISTOL

NEWPORT
PARLIN FLD 2 NW
786 H26 (1) S3 U-1 FSS: LEBANON
Remarks: Rgt tfc S. Straight out departures approved S.

N CONWAY
WHITE MOUNTAIN 2 SE
495 H29 (1) S3 F4 U-1 FSS: CONCORD

NORTH STRATFORD 1 S
890 18 (1) U-1 FSS: MONTPELIER
Remarks: P-lines N.

PARLIN FLD See NEWPORT

PIKE See TILTON

PLYMOUTH MUNI 3 NW
506 20 (1) FSS: LEBANON

RIVERSIDE See ASHLAND

ROCHESTER
SKYHAVEN 3 SE
320 25 (1) S3 F4 U-1 FSS: CONCORD
Remarks: Rgt tfc rnwy 32 attended days.

SILVER RANCH See JAFFREY

SKYHAVEN See ROCHESTER

TILTON
PIKE 2 NE
490 H20 (1) F3 FSS: CONCORD
Remarks: Attended April-Nov.

WARREN
MORSE 1 NW
797 29 (1) FSS: LEBANON
Remarks: P-line NW. Clsd winters. Unattended

WHITEFIELD MUNI *IFR* 3 SE
1048 H24 (1) *L S3 F4 U-1 FSS: LEBANON

WHITE MOUNTAIN See N CONWAY

SKYHAVEN See ROCHESTER

WOLFEBORO
LAKES REGION 2 W
580 15 (1) *L S1 F2 U-1 FSS: CONCORD

NEW JERSEY

ADAMS AIRPARK See FLEMINGTON

AEROFLEX-ANDOVER See ANDOVER

AERO-HAVEN See BERLIN

AIRPORT DIRECTORY

ION AIRSTRIP 1 NE
150 24 (1) S5 F3 FSS: MILLVILLE
Remarks: P-lines SW.

XANDRIA See PITTSTOWN

OVER
EROFLEX-ANDOVER *IFR* 3 SE
583 H20 (1) L4 S5 F4 FSS: TETERBORO
Remarks: Rgt tfc rnwy 3.

INCA 2 SW
500 20 (1) F2 FSS: TETERBORO
Remarks: Irregularly attended.

JRY PARK-NEPTUNE See NEPTUNE

.AND
LAWARE VALLEY INDUSTRIAL ARPK 1 S
500 28 (1) *L4 S5 F4 FSS: MILLVILLE
Remarks: Attended days.

NTIC CITY
DER See Section IV-A

FEC ATLANTIC CITY See Section IV-A

ER See ATLANTIC CITY, BADER in Section IV-A

AAR
NMOUTH CO *IFR* 5 W
55 H40 (1) L4 S5 F5, JP4 U-1 FSS: TETERBORO
Remarks: Shoulders soft-wet. Fee if pilot leaves arpt.

.IN
RO-HAVEN 3 NE
50 H28 (1) L4 S5 F4 U-1 FSS: MILLVILLE

RSTOWN 2 SW
80 20 (1) *L1 F2 U-1 FSS: ALLENTOWN
Remarks: P-line wsw. Attended wkends & holidays.

GEPORT *IFR* 1 SE
3 H24 (2) L4 S5 F4 U-1
FSS: MILLVILLE (LC 825-1173)
FR ADV: For APP CON, DEP CON See PHILADELPHIA/ INTL, PENNSYLVANIA in Section IV-A.
emarks: 3500' strip avbl.

GETON
CK'S 3 NE
00 20 (3) S3 F2 FSS: MILLVILLE (LC 825-1173)
emarks: Soft-wet. P-lines SE, SW: unattended Dec 1 - March 31.

CALZI 1 S
2 27 (1) S5 F2 FSS: MILLVILLE (LC 825-1173)
emarks: P-lines W.

'S See BRIDGETON

INGTON COUNTY See MT HOLLY

WELL-WRIGHT See Section IV-A

CAPE MAY COUNTY See WILDWOOD

COLTS NECK *IFR* 1 SW
100 24 (2) L4 S5 F2 U-1 FSS: TETERBORO
Remarks: Soft spots when wet. Rnwy lgts on request after 2200.

CROSS KEYS 1 S
168 23 (1) L4 S5 F4 FSS: MILLVILLE

CUMULUS RIDGE See MILFORD

DELAWARE VALLEY INDUSTRIAL AIRPARK See ASHLAND

DOWNSTOWN See VINELAND

FLEMINGTON
ADAMS ARPK 5 SE
285 20 (1) *L4 S3 F2 U-1 FSS: TETERBORO
Remarks: Attended Mondays. Rgt tfc rnwy 6.

FLYING W RANCH See LUMBERTON

GREENWOOD LAKE See WEST MILFORD

HACKETTSTOWN 2 SW
690 30 (3) S3 F2 FSS: TETERBORO

HADLEY See SOUTH PLAINFIELD

HANOVER 2 NE
170 H20 (1) *L4 S5 F4
FSS: TETERBORO (LC AT 8-9092)

KROELINGER See VINELAND

KUPPER See MANVILLE

LAKEWOOD 2 SE
32 H27 (1) F2 U-1 FSS: TETERBORO
Remarks: Fee for commercial acft only. Rgt tfc rnwy 24.

LI CALZI See BRIDGETON

LINCOLN PARK 2 NW
180 28 (2) S5 F4 FSS: TETERBORO

LINDEN 1 SE
23 H41 (3) *L4 S5 F5, JP4 U-1 FSS: TETERBORO
VFR ADV: For APP CON, DEP CON See NEWARK in Section IV-A.
Remarks: Surrounded by P-lines; rgt tfc rnwys 9.

LUMBERTON
FLYING W RANCH 2 S
60 H38 (2) BL4 S5 F4 U-1
FSS: PHILADELPHIA (LC OR 3-8020)
Remarks: P-line NW. Rgt tfc rnwys 1 and 32.

MANVILLE
KUPPER *IFR* 1 S
90 H32 (2) L4 S5 F4 U-1 FSS: TETERBORO
Remarks: Rgt tfc rnwy 25.

AIRPORT DIRECTORY

MARLTON-MEDFORD 2 NE
80 23 (2) F2 FSS: PHILADELPHIA
Remarks: Unattended.

MATAWAN
PRESTON 3 S
140 22 (2) S5 F4 FSS: TETERBORO

MERCER CO See **TRENTON, MERCER CO** in Section IV-A.

MILFORD
CUMULUS RIDGE 4 NE
720 24 (1) S3 FSS: TETERBORO

MILLVILLE MUNI *IFR* 3 SW
87 H51 (4) BL4, 6 S5 F4 FSS: MILLVILLE on Fld
Remarks: Peripheral taxiways and SE end ramp adj NW/SE txwy perm clsd; Refueling 0800 to dusk. Rnwy lgts avbl on reg to Millville rdo.

MONMOUTH COUNTY See **BELMAR**

MOORESTOWN 2 NE
70 18 (3) L1 S5 F2
FSS: PHILADELPHIA (LC OR 3-8020)
Remarks: P-line NNW. Rgt tfc S, SW & W rnwys.

MORRISTOWN MUNI See Section IV-A.

MT HOLLY
BURLINGTON CO 4 SW
45 H24 (1) L4 S5 F4 U-1
FSS: PHILADELPHIA (LC 267-0910)
Remarks: Rgt tfc rnwys 27 and 18.

NAFEC ATLANTIC CITY See **ATLANTIC CITY, NAFEC ATLANTIC CITY** in Section IV-A.

NEPTUNE
ASBURY PARK-NEPTUNE 3 W
100 30 (2) *L4 S3 F2 FSS: TETERBORO

NEWARK See Section IV-A

NEW BRUNSWICK
NORTH BRUNSWICK 2 SW
125 32 (3) L4 S5 F4 U-1 FSS: TETERBORO
Remarks: P-lines NE, SE, W, E, NW. No E tkof, Maintain 300' alt over hi-way lndg on rnwy 14-32.

NORTH BRUNSWICK See **NEW BRUNSWICK**

OCEAN CITY MUNI 2 SW
8 30 (1) L4 F2 U-1 FSS: MILLVILLE (LC 399-8096)
Remarks: Rnwy lgts on prior request after 0000. Rgt tfc rnwy 24.

OLDWICK
PINE COVERT ARPK 2 SE
205 28 (1)
Remarks: Wires on W end.

PATERSON
TOTOWA-WAYNE 4 W
185 H28 (1) L4 S5 F4 U-1
FSS: TETERBORO (LC AT8-[illegible]
Remarks: P-line NW.

PEMBERTON 1 NW
65 26 (1) F2 FSS: PHILADELPHIA (LC OR 3-[illegible]

PENNINGTON
TWIN PINE 2 SE
230 22 (1) S3 FSS: PHILADELPHI
Remarks: P-line SE. Unattended.

PINE COVERT AIRPARK See **OLDWICK**

PITMAN 2 NW
100 24 (1) L4 S3 F2 FSS: MILLVI[illegible]
Remarks: P-line NW.

PITTSTOWN
ALEXANDRIA 2 NW
460 19 (2) S3 F4 FSS: TETERBOR
SKY MANOR 1 SW
540 34 (3) *L4 S3 F4 U-1 FSS: TETERBOR

PRESTON See **MATAWAN.**

PRINCETON 2 N
160 24 (2) *L4 S5 F4 U-1 FSS: PHILADELPH
Remarks: P-line E, SE. Fee for commercial acft.

RATCLIFFE See **WALPACK**

READINGTON
SOLBERG-HUNTERDON *IFR* 1 NW
195 H19 (4) *L4 S5 F4 U-1 FSS: TETERBOR
Remarks: Use rnwy-wet. 3600' strip avbl. Fee when no services purchased.

RED BANK *IFR* 1 S
80 H24 (1) L4 S5 F4 U-1 FSS: TETERBORO
Remarks: P-line W. Lgt prior request after 2200.

ROBBINSVILLE
TRENTON-ROBBINSVILLE *IFR* 1 SE
115 H31 (1) L4 S5 F4 U-1 FSS: PHILADELPHIA

RUDY'S See **VINE LAND**

SALEM 1 SE
15 22 (1) L4 F2 FSS: MILLVILLE (LC 825-[illegible]
Remarks: Mid 1660' of rnwy lgtd. Displaced thresholds. Rnwy 15, 300' SE; rnwy 33, 240' NW.

SKY MANOR See **PITTSTOWN**

SOLBERG-HUNTERDON See **READINGTON**

SOMERSET See **SOMERVILLE**

AIRPORT DIRECTORY

RSET *IFR* 4 NW
05 H30 (1) *L4 S5 F4 U-1 FSS: TETERBORO
Remarks: W tk-off start left turn soon as possible; NW tk-off make gentle rgt turn soon as possible, followed by wide left hand pat.

UNFIELD
DLEY 3 N
10 26 (3) *L4 S5 F4 U-1 FSS: TETERBORO
emarks: P-line NW, W.

:X 1 SW
20 25 (2) S5 F2 FSS: TETERBORO

RBORO See Section IV-A

CO Adj N
90 30 (1) S3 F2 U-1 FSS: TETERBORO
emarks: P-line W. Rgt tfc rnwy 9.

WA-WAYNE See PATERSON

TON MERCER CO See Section IV-A

TON-ROBBINSVILLE See ROBBINSVILLE

:A See ANDOVER

PINE See PENNINGTON

.AND
VNSTOWN *IFR* 3 NE
20 25 (2) S5 F4 U-1 FSS: MILLVILLE (LC 825-1173)
emarks: P-line N.

)ELINGER 3 NW
)0 24 (4) L4 S5 F2 U-1
FSS: MILLVILLE (LC 825-1173)
emarks: P-lines W, S, E, SE.

)Y'S 4 NW
) 24 (1) L4 S5 F3 U-1
FSS: MILLVILLE (LC 825-1173)

ELAND 4 SW
5 23 (2) S3 F2 FSS: MILLVILLE (LC 825-1173)
emarks: P-line E, SE. Attended week-ends.

ACK
'CLIFFE 4 SW
25 31 (1) FSS: TETERBORO

/OOD
'E MAY CO *IFR* 4 NW
2 H50 (4) BL4 S5 F4 U-1
FSS: MILLVILLE (LC 399-8096)
FR ADV For APP CON, DEP CON See ATLANTIC CITY/ ATLANTIC CITY NAFEC in Section IV-A

MILFORD
:ENWOOD LAKE 1 NE
)0 H22 (1) S5 F4 U-1 FSS: TETERBORO
emarks: Rgt tfc rnwy 2.

WOODBINE MUNI 2 SE
39 H25 (2) FSS: MILLVILLE (LC 825-1173)

WOODSTOWN 3 N
100 19 (2) F2 FSS: MILLVILLE (LC 825-1173)
Remarks: P-line N.

NEW MEXICO

ALAMOGORDO
ALAMO-MIDWAY 3 SW
4230 49 (2) S5 F4 U-1 FSS: ROSWELL
Remarks: P-line SE; attended days. NW-SE rnwy emgcy only.

ALAMOGORDO MUNI 4 SW
4197 H70 (2) BL4 S3 F4 FSS: ROSWELL (DL)

ALBUQUERQUE
ALAMEDA 6 NW
5069 H42 (2) *L4 S5 F4 U-1
FSS: ALBUQUERQUE (LC CH 3-7832)

CORONADO 6 NE
5270 H42 (3) L4 S5 F4 U-1
FSS: ALBUQUERQUE (LC CH 3-7832)
Remarks: Tkofs prohibited rnwys 3 and 8.

SUNPORT/KIRTLAND AFB See SECTION IV-A

WEST MESA 3 W
5129 63 (4) S5 F4
FSS: ALBUQUERQUE (LC CH 3-7832)

ANTELOPE WELLS 4 SW
4900 26 (2)
Remarks: Antenna SE.

APACHE CREEK
JEWETT MESA 10 N
7600 37 (1)

ARTESIA MUNI 4 W
3532 H68 (3' BL4 S5 F4 U-1 FSS: CARLSBAD

AZTEC MUNI 2 NW
587 H28 (2) L4 S5 F4
FSS: FARMINGTON (LC DA 5-9271)

BIA CROWNPOINT See CROWNPOINT

BLOOMFIELD
BRETHERN IN CHRIST MISSION 23 S
6870 48 (1)
Remarks: Middle soft when wet.

BRETHERN IN CHRIST MISSION See BLOOMFIELD

C S RANCH See CIMARRON

CARLSBAD
CARLSBAD MUNI *IFR* 5 SW
3276 H66 (4) BL4 S5 F4 FSS: CARLSBAD on Fld
Remarks: P-line S, displaced thresholds: Rnwy 21 350' SW, rnwy 32L 666' NW, rnwy 32R 659' NW.

AIRPORT DIRECTORY

CAVERNS See WHITE CITY

CARRIZOZO Adj N
5420 35 (3) FSS: ROSWELL
Remarks: P-line apchs 1 and 5.

CIMARRON
C S RANCH 6 SE
6125 42 (1) FSS: LAS VEGAS

CLAYTON MUNI ARPK 2 E
4970 54 (2) BL4 S3 F4 FSS: DALHART
Remarks: Oiled ends of rnwy soft.

CLINES CORNERS S
7100 37 (1) U-1 FSS: ALBUQUERQUE

CLOVIS
CLOVIS MUNI 6 E
4214 H62 (1) BL4 S5 F4 U-1 FSS: TUCUMCARI

HILLCREST 2E
4244 36 (4) S3 F2 FSS: TUCUMCARI
Remarks: P-lines E, SE, S & SW.

COLUMBUS 1 E
4024 42 (2) BL2 FSS: DEMING
Remarks: Soft-wet; P-lines N. Unattended.

CONCHAS DAM
CONCHAS LAKE 1 SW
4240 26 (2) U-1 FSS: TUCUMCARI (LC 461-2900)

CONCHAS LAKE See CONCHAS DAM

CORONADO See ALBUQUERQUE

CROWNPOINT
BIA CROWNPOINT Adj N
6960 53 (1) U-1 FSS: GRANTS

CUBA
TANNER 7 NW
6542 25 (1)
Remarks: Ruf.

TINIAN 8 SE
6675 30 (1)
Remarks: Ruf. Soft when wet.

CUBERO 2 W
6192 36 (2) FSS: GRANTS
Remarks: P-line S. Ruf.

CUERVO
HOLBROOK'S FLD 1 NE
4810 27 (2) FSS: TUCUMCARI
Remarks: P-line apch rnwy 2.

DEMING MUNI *IFR* 2 SE
4314 H81 (2) BL4 S5 F4 FSS: DEMING on Fld
Remarks: TV ant W & SW.

DULCE SE
6800 32 (1)
Remarks: Soft when wet. P-line NW.

EL PASO NATURAL GAS CO See ROSWELL

ESTANCIA VALLEY See MORIARTY

EUNICE
LEA COUNTY 4 W
3580 H36 (1) FSS: FCEE

FARMINGTON MUNI *IFR* 2 NW
5502 H65 (2) BL4 S5 F4 U-1
FSS: FARMINGTON on Fld
Remarks: Rnwy 7-25 limited 12,500 lbs GWT excp emgcy.

FLYING H RANCH See HOPE

FORT STANTON 2 S
6771 35 (2) FSS: ROSWELL

FORT SUMNER MUNI 1 NE
4166 H60 (3) FSS: TUCUMCARI

FULLER RANCH See PICACHO

GALLUP
McKINLEY CO 3 SW
6467 H50 (1) BL4 S5 F4 U-1 FSS: ZUNI

GLENWOOD
LOS OLMAS 3 NE
5340 35 (1)

GRANTS
GRANTS-MILAN MUNI 3 NW
6520 H53 (1) BL4 S1 F4 FSS: GRANTS on Fld
Remarks: P-line N.

GREATER GRANTS 6 N
6550 H64 (1) S3 F4 FSS: GRANTS (LC AT 7-3[illegible]

GREATER GRANTS See GRANTS

HATCH MUNI 3 SW
4120 H26 (1) FSS: TRUTH OR CONSEQUENCE
Remarks: Unattended.

HILLCREST See CLOVIS

HILLSBORO
LADDER RANCH 7 NE
5210 41 (1) *L4 FSS: TRUTH OR CONSEQUENCE

HOBBS
HOBBS MUNI 6 NW
3707 H88 (2) FSS: HOBBS (LC EX 3-[illegible]
Remarks: Unattended.

LEA COUNTY See Section IV-A

HOLBROOK'S FLD See CUERVO

AIRPORT DIRECTORY

E
YING H RANCH 24 NW
5162 27 (2) FSS: ROSWELL
Remarks: Ruf.

LEA COUNTY 3 NE
3115 H36 (1) L4 FSS: HOBBS

TT MESA See APACHE CREEK

IINA See TAOS

)ER RANCH See HILLSBORO

CRUCES
ST 1 NE
044 H36 (1) *L4 S3 F4 U-1 FSS: DEMING

S CRUCES MUNI 7 W
454 H75 (3) BL4 S5 F4 U-1 FSS: DEMING

IVERSITY 3 SE
900 H43 (1) L4 U-1 FSS: DEMING
emarks: P-line SW. Emgcy repairs on request only. 3100' of mwy lgtd.

VEGAS MUNI *IFR* 5 NE
866 H64 (2) BL4 S5 F4 FSS: LAS VEGAS on Fld

COUNTY See EUNICE

COUNTY See HOBBS in Section IV-A

COUNTY See LOVINGTON

COUNTY See TATUM

)SBURG MUNI 1 SE
286 59 (2) S1 F3 FSS: DEMING
emarks: P-line WNW. Unattended.

)LMAS See GLENWOOD

LACE See TECOLOTE

NGTON
A COUNTY 3 W
974 H40 (1) BL4 F4 U-1 FSS: HOBBS

)ALENA 1 N
550 52 (2) FSS: ALBUQUERQUE
emarks: P-line SW. Unattended.

ILEY CO See GALLUP

ILLON
GRITO AIRSTRIP 15 NE
143 41 (2)
emarks: Unattended.

ARTY
TANCIA VALLEY 1 NW
220 26 (2) F2 FSS: ALBUQUERQUE
emarks: P-line NE. Soft-wet. Unattended.

NEGRITO AIRSTRIT See MOGOLLON

PENDARIES VILLAGE See ROCIADA

PICACHO
FULLER RANCH 2 SW
5056 30 (1) FSS: ROSWELL

PINON
RUNYON 10 SE
5327 51 (2)

TEMPLETON RANCH 22 SE
4024 32 (2)
Remarks: P-line NNE.

PORTALES MUNI 2 W
4022 H35 (1) L4 S1 F4 FSS: TUCUMCARI
Remarks: Lgts on prior request after 2400.

RAINY MESA See RESERVE

RATION CREWS FLD MUNI 10 SW
6352 H55 (2) BL4 FSS: TRINIDAD

RESERVE
RAINY MESA 12 SE
7438 60 (1)

ROCIADA
PENDARIES VILLAGE 2 SE
7600 47 (1) F2
Remarks: Unattended.

ROSWELL
EL PASO NATURAL GAS CO 19 N
4382 35 (1) FSS: ROSWELL

ROSWELL MUNI See Section IV-A

RUIDOSO MUNI 2 NE
6911 H55 (1) S5 F2, 4 U-1 FSS: ROSWELL
Remarks: Ctc Unicom for advisory. All tk-offs S regardless of wind.

RUNYAN See PINON

SANTA FE-COUNTY MUNI See Section IV-A

SANTA ROSA MUNI 5 NW
5040 34 (1) FSS: LAS VEGAS
Remarks: Unattended.

SHIPROCK 1 S
4990 32 (2) FSS: FARMINGTON

SILVER CITY-GRANT CO 10 SE
5443 H65 (1) BL4 S5 F4 U-1 FSS: DEMING
Remarks: Rnwy lgts on prior request after 2100.

SOCORRO MUNI 3 S
4796 H60 (1) BL4 F4 FSS: ALBUQUERQUE

AIRPORT DIRECTORY

SPRINGER MUNI 1 NE
5990 27 (1) FSS: LAS VEGAS

SUNPORT/KIRTLAND AFB See ALBUQUERQUE in Section IV-A

TANNER See CUBA

TAOS
KACHINA 2 SW
6932 39 (2) F4 FSS: SANTA FE

ZIA FLD 4 SW
6890 47 (3) FSS: SANTA FE

TATUM
LEA COUNTY 2 E
3980 H29 (1) FSS: HOBBS

TECOLOTE
LOVELACE 3 E
6600 41 (1) F4
Remarks: Unattended.

TEMPLETON RANCH See PINON

TINIAN See CUBA

TRUTH OR CONSEQUENCES MUNI *IFR* 7 N
4860 H56 (1) BL4 F4 FSS: TRUTH or CONSEQ on Fld
Remarks: 7400′ dirt strip avbl.

TUCUMCARI MUNI *IFR* 6E
4063 H64 (2) BL4 S3 F4 FSS: TUCUMCARI on Fld

UNIVERSITY See LAS CRUCES

WEST MESA See ALBUQUERQUE

WHITE CITY
CARLSBAD CAVERNS 1 E
3598 31 (2) F2
Remarks: P-line NW, SE. Unattended.

ZIA FLD See TAOS

NEW YORK

ACCORD
ANDERSON ACRES 1 W
260 16 (1) B*L4 F2 FSS: POUGHKEEPSIE
Remarks: Lgts on SE 1475′ of rnwy

ADIRONDACK See SARANAC

AERO LAKE See PORT EWEN

A I MARTIN See MONTOUR FALLS

AIRLANE ENTERPRISES See CLAY

AKRON Adj E
840 30 (1) S3 F2 FSS: BUFFALO
Remarks: Irregular attended.

ALBANY-COUNTY See Section IV-A

ALEXANDRIA BAY
PADDOCK FLD 4 SW
280 24 (1) FSS: WATERTOWN
Remarks: Closed Oct thru April.

ALLENS FLD See CHIPPEWA BAY

AMA EXECUTIVE See HAMILTON

AMHERST See BUFFALO

AMITYVILLE
ZAHNS ARPT, INC *IFR* 2 NE
54 H42 (2) BL4 S5 F4 U-1 FSS: ISLIP
VFR ADV: For APP CON, DEP CON See NEW YORK JOHN F KENNEDY INTL in Section IV-A
Remarks: P-line E. W. No Indg FEE with gas purchase, rgt tfc rnwys 10 and 18.

ANDERSON ACRES See ACCORD

ANTHONSON See JORDAN

ARIETTA
PISECO 12 N
1710 H18 (1) F2 FSS: UTICA
Remarks: Attended on call summers. Closed winters.

ARMONK 1 SE
380 22 (2) S3 F4 FSS: POUGHKEEPSIE

ATHENS 2 NW
145 26 (1) L4 F4 FSS: ALBANY
Remarks: Lgts oper on request after 11 PM.

BAILEY See ONTARIO

BALLSTON SPA MUNI 3 N
433 H40 (2) *L4 S5 F4 U-1 FSS: GLENS FALLS
Remarks: Bcn oper prior-request

BARKER-CENTRAL SCHOOL 1 NW
340 32 (1) FSS: BUFFALO

BATAVIA 2 NE
910 30 (1) B*L S3 F4 U-1 FSS: BUFFALO
VFR ADV: For APP CON, DEP CON See ROCHESTER ROCHESTER-MONROE CO in Section IV-A

BATH-HAMMONDSPORT See HAMMONDSPORT

BAYPORT
EDWARDS 1 NW
41 32 (2) S5 F2 FSS: ISLIP
Remarks: Rgt tfc rnwys 1 and 36. Ruf. Landing FEE.

BECK'S GROVE See ROME

BETHPAGE GRUMMAN-BETHPAGE See Section IV-A

BICKFORD ARPK See LEROY

AIRPORT DIRECTORY

IGHAMTON
BINGHAMTON 6 NE
940 21 (2) S3 F2 FSS: BINGHAMTON (LC 797-0784)

BROOME COUNTY See Section IV-A

IZEE-HARMON See PITTSFORD

OOKHAVEN See SHIRLEY

OOME COUNTY See BINGHAMPTON, BROOME COUNTY in ection IV-A

FFALO
MHERST 2 NW
580 H23 (1) L4 S5 F4 U-1 FSS: BUFFALO (LC NF 2-6083)
Remarks: Rgt tfc lndg NE.

UFFALO-AIRPARK 6 SE
660 H30 (2) *L4 S5 F4 U-1 FSS: BUFFALO (DL)

REATER BUFFALO See Section IV-A

RT
AKEVIEW ARPT 2 W
300 13 (1) F2 FSS: BUFFALO

RO
PORT HAVEN ARPK 1 NE
240 20 (1) F2 FSS: ALBANY

LVERTON-PECOWIC RIVER See Section IV-A

BRIA See LOCKPORT

ILLUS 3 NE
405 H35 (1) S5 F4 U-1 FSS: SYRACUSE
Remarks: P-line E.

ANDAIGUA
ANADAIGUA-FLYING SERVICE 2 NW
300 17 (1) S5 FSS: ROCHESTER

ARMERS GROVE 3 NE
720 15 (1) F2 FSS: ROCHESTER

ASTOTA 1 SW
535 H20 (3) L4 S5 F4 U-1 FSS: UTICA
Remarks: Unicom on prior request by phone. 3200' strip avbl.

NE See PHELPS

MUNG CO See ELMIRA, CHEMUNG CO in Section IV-A

PPEWA BAY
LLENS FLD 2 NW
375 24 (1) FSS: WATERTOWN

ISTIE See NEW CITY

ERO ARPK NW
416 17 (1) S3 F2 FSS: SYRACUSE

CLAY
AIRLANE ENTERPRISES 1 N
415 22 (2) FSS: SYRACUSE
Remarks: P-line S.

COHOES
LOUDON 2 NW
280 21 (2) S5 F4 U-1 FSS: ALBANY (LC 869-9225)
Remarks: P-line S, W.

COLMAN'S See FLORIDA

COLONIAL VILLAGE See NIAGARA FALLS

COOPERSTOWN 1 NW
1660 25 (2) BL4 S5 F4 U-1 FSS: UTICA

COOPERTOWN-WESTVILLE See WESTVILLE

CORNING-PAINTED POST See PAINTED POST

CORTLAND MUNI 2 SW
1180 26 (1) L4 S5 F4 U-1 FSS: SYRACUSE
Remarks: Skis Winters.

CROTON-ON-HUDSON
CROTON ARPK 3 NE
370 14 (1) S3 FSS: POUGHKEEPSIE
Remarks: Attended week-ends.

CROTON ARPK See CROTON-ON-HUDSON

COUNTY LINE See NORTH TONAWANDA

CUBA
KORKA LANDING STRIP 1 N
1492 15 (1) FSS: BRADFORD

CURTIS See NASSAU

DADES See FORESTPORT

DANSVILLE MUNI 1 NW
662 H40 (2) BL2 S5 F4 U-1 FSS: ROCHESTER

DEER PARK *IFR* 1 E
78 H23 (2) L4 S5 U-1 FSS: ISLIP (DL)
Remarks: P-line NE, SW.

DE JOHNSPORT See ILION

DEPOSIT 1 SE
980 25 (1) S3 F2 U-1 FSS: BINGHAMTON
Remarks: P-line S. Unattended.

DOLGEVILLE 1 NE
930 12 (1) S1 FSS: UTICA
Remarks: Ski equipped acft winter months.

DOWNSVILLE 2 SW
1092 27 (1) F2 FSS: BINGHAMTON
Remarks: Unattended.

AIRPORT DIRECTORY

DUANESBURG Adj S
710 20 (1) S3 F4 FSS: ALBANY

DUFLO See NEW BREMEN

DUNDEE
DUNDEE AIRFLD 1 NE
1020 23 (2) S3 F4 FSS: ELMIRA
Remarks: Unattended.

GIBSON FLD 1 W
1050 14 (1) S3 FSS: ELMIRA

GREENLAWN FARM 2 NE
1010 19 (1) F2 FSS: ELMIRA

DUNKIRK MUNI 2 E
692 H40 (2) BL4 S5 F4 U-1 FSS: BUFFALO

DUTCHES CO See POUGHKEEPSIE.

EAST AMHERST
STEFFEN 3 N
582 18 (1) S5 FSS: BUFFALO
Remarks: Wires E, W.

EAST HAMPTON *IFR* 2 W
55 42 (3) BL4 S5 F4 U-1 FSS: ISLIP
Remarks: P-line N, NE. FEE for transient commercial acft, W end ruf.

EAST MORICHES
SPADARO 1 NW
50 19 (1) S5 F2 FSS: ISLIP
Remarks: P-line S.

EAST WILLIAMSON
WILLIAMSON-SODUS 1 E
420 20 (1) L4 F2 FSS: ROCHESTER
Remarks: Unattended.

EATON See NORWICH

EDWARDS See BAYPORT

ELIZABETH AIRFLD See FISHERS ISLAND

ELMIRA CHEMUNG CO See Section IV-A

EMPIRE AERO SERVICE See SKANEATELES

ENDICOTT
TRI-CITIES 3 W
832 H35 (2) *L2 S5 F4 U-1
FSS: BINGHAMTON (LC 797-0784)
VFR ADV: For APP CON, DEP CON See BINGHAMPTON/ BROOME COUNTY in Section IV-A

F AND F ARPK See ONEONTA

FARMERS GROVE See CANANDAIGUA

FARMINGDALE REPUBLIC AVIATION CORP See Section IV-A

FISHERS ISLAND
ELIZABETH AIRFLD Adj SW
7 H28 (2) *L4 FSS: PROVIDENCE
Remarks: Clsd winters.

FLORIDA
COLMAN'S 1 NE
480 19 (1) S5 FSS: POUGHKEEPSIE
Remarks: P-line NE. Clsd ngts.

FLUSHING See NEW YORK

FOREST PORT
DADES 2 N
1300 20 (1) FSS: UTICA
Remarks: P-line E.

FT PLAIN
NELLIS FLD 3 W
700 23 (1) S5 F4 FSS: UTICA
Remarks: Trees E. Skis winters.

FRANKFORT
HIGHLAND 5 SW
1300 26 (1) S5 F2 FSS: UTICA (LC RE 6-9033
Remarks: Ski eqpd acft winter months, displaced threshold each end rnwy 13-31

FREDONIA 3 W
620 25 (2) F4 FSS: ERIE
Remarks: P-line N, E.

FULCO See JOHNSTOWN

FULTON MUNI 2 NE
469 H40 (2) L2 F4 FSS: SYRACUSE
Remarks: Bcn prior req.

GARNSEY'S LAND & SEAPLANE BASE See SCHUYLERVILLE

GASPORT
ROYALTON 1 SE
630 28 (1) S5 F2 U-1 FSS: BUFFALO

GAY VALLEY ARPK See SCOTIA

GENEVA 3 W
800 20 (1) S3 F2
Remarks: P-line S.

GHENT
KLINE KILL 2 N
380 23 (1) S3 F2 FSS: ALBANY
Remarks: Unattended. P-line apch rnwy 19.

GIBSON FLD See DUNDEE

GLENS FALLS
WARREN CO *IFR* 2 NE
328 H50 (2) BL4, 11 S5 F4
FSS: GLENS FALLS
VFR ADV: For APP CON DEP CON See ALBANY ALBANY COUNTY in Section IV-A
Remarks: Rcil rnwy 1.

AIRPORT DIRECTORY

UVERNEUR (FOWLER)
:YDER'S SKYPORT Adj NE
580 19 (1) L4 S3 F2 U-1 FSS: WATERTOWN
Remarks: Unattended.

ANT See MEDINA

ANVILLE 1 N
420 H20 (1) *L4 S5 F4 U-1 FSS: GLENS FALLS

EATER BUFFALO See BUFFALO, GREATER BUFFALO in ection IV-A

ENE 2 SW
935 26 (1) S3 F2 FSS: BINGHAMTON

ENLAWN FARM See DUNDEE

ENVILLE
AINBOW 1 NE
340 15 (1) FSS: ALBANY

MMAN-BETHPAGE See BETHPAGE, GRUMAN-BETHPAGE Section IV-A

ILTON
MA EXECUTIVE 1 NE
1134 H34 (2) S3 F4 FSS: UTICA

MONDSPORT
ATH-HAMMONDSPORT 1 SW
780 19 (1) *L S5 F2 U-1 FSS: ELMIRA
Remarks: Unattended.

AYLOR-VAN GELDER 2 NE
1580 H30 (1) L4 S3 F4 U-1 FSS: ELMIRA

COCK See SYRACUSE, HANCOCK in Section IV-A

MONY CREST See HARPURSVILLE

PURSVILLE
ARMONY CREST 3 N
1360 24 (1) FSS: BINGHAMTON

KIMER
MANNA 5 SE
1330 22 (1) L4 S3 U-1 FSS: UTICA
Remarks: Unattended.

LAND See FRANKFORT

TOP ARPK See WOLCOTT
GES See ROSCOE

EOYE FALLS Adj SW
680 20 (1) F2 FSS: ROCHESTER

NELL MUNI 3 NW
1170 24 (3) S1 F2 FSS: ELMIRA
Remarks: Unattended.

GHTON-COLLEGE Adj W
1413 27 (1) FSS: BRADFORD

HUGUENOT See PORT JERVIS

HYLAN FLD See ROCHESTER

ILION
DE JOHNSPORT Adj N
400 20 (1) S3 F4 FSS: UTICA
Remarks: Unattended. Skis winters.

INTERLAKEN
NUN-DAKAHET Adj S
900 24 (1) S1 F2 FSS: SYRACUSE
Remarks: P-line N.

ISLIP MAC ARTHUR See Section IV-A

ITHACA
ITHACA MUNI 1 NW
386 H27 (1) S3 F4 FSS: ELMIRA
Remarks: Rgt tfc N and S rnwys.

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AIRPORT DIRECTORY

KIRKVILLE Adj W
434 21 (3) S2 F2 FSS: SYRACUSE (LC GL 4-2479)
Remarks: P-line NE, NW.

KLINE KILL See GHENT

KOBELT See WALLKILL

KORKA LANDING STRIP See CUBA

LA GUARDIA See NEW YORK, LA GUARDIA in Section IV-A

LAKE PLACID 2 SE
1744 35 (2) S1 F4 U-1 FSS: MASSENA
Remarks: Attended days Apr thru Nov.

LAKEPORT
ONEIDA LAKE ARPK Adj NW
390 17 (2) FSS: SYRACUSE
Remarks: P-line SE, SW. Attended irregularly.

LAKEVIEW ARPT See BURT

LAKEVIEW 1 E
750 H26 (1) L1 S3 F4 FSS: BUFFALO (LC NF 2-6083)
Remarks: P-line S.

LEMANNA See HERKIMER

LANCASTER
SCOTT FLD 5E
696 21 (1) FSS: BUFFALO
Remarks: P-lines N, S & W. Twrs W.

LEROY
BICKFORD ARPK 2 E
775 26 (1) L4 S5 F2 FSS: ROCHESTER
Remarks: Attended dalgt hrs. Rnwy lgts on prior request after 2400 and during all IFR.

LIBERTY MUNI 2 NE
1700 32 (2) L4 S1 F4 U-1 FSS: POUGHKEEPSIE
Remarks: FEE for charted crft. Displaced threshold 400' rnwy 20.

LINLITHGO (GERMANTOWN)
WEBBER'S 1 SE
172 15 (2) L S5 F2 U-1 FSS: POUGHKEEPSIE

LIVINGSTON MANOR 1 SE
1440 26 (1) S3 F2 FSS: POUGHKEEPSIE
Remarks: Displaced threshold 400' rnwy 15.

LOCKPORT
CAMBRIA 4 NW
410 24 (2) S5 F2 FSS: BUFFALO
Remarks: Soft when wet.

TRANSIT ARPK 3 S
600 32 (1) *L4 S3 F2 FSS: BUFFALO
Remarks: P-line E. Attended May-Dec. Lgts till 2300

LOUDON See COHOES

MAC See MOHAWK

MAC ARTHUR See ISLIP, MAC ARTHUR in Section IV-A

MAHOPAC 2 NW
685 18 (1) S5 F2 FSS: POUGHKEEPSIE
Remarks: Soft when wet. Irregularly attended.

MAKARAINEN See ITHACA

MALONE-DUFORT 2 W ACE
791 H40 (2) *B *L4 F2 FSS: MASSENA

MARCY FLD See KEENE

MARLBORO 3 NW
410 17 (1) F2 U-1 FSS: POUGHKEEPSIE
Remarks: Attended dalgt hrs.

MASSENA
RICHARDS FLD *IFR* 2 E ACE
215 H50 (2) BL4 S5 F4 U-1 FSS: MASSENA or E
Remarks: Fee.

MATTITUCK-AIRBASE 1 SE
30 22 (1) S5 F4 U-1 FSS: ISLIP
Remarks: Threshold displaced 150' rnwy 18, 200' rnwy 36.

MEDINA
GRANT Adj N
500 19 (1) F2 FSS: BUFFALO

MIDDLE HOPE ARPK See NEWBURGH

MIDDLESEX-VALLEY Adj N
735 22 (1) F2 U-1 FSS: ROCHESTER
Remarks: Unattended.

MIDDLETOWN
RANDALL 2 SE
520 29 (3) *L S5 F4 U-1 FSS: POUGHKEEPSIE
Remarks: Rnwy lgts avail on 3 hr prior notice. FEE for commercial afct.

MIDWAY See OLEAN

MOHAWK
MAC 1 SE
1200 23 (1) F2 U-1 FSS: UTICA
Remarks: P-line E.

MONTAUK
SKY PORTEL 3 NE
10 35 (1) S1 F4 U-1 FSS: ISLIP
Remarks: P-line SW. FEE and attended May 15-Oct 15.

MONTGOMERY
MONTGOMERY 1 SW
393 18 (2) *L4 S1 F2 FSS: POUGHKEEPSIE
Remarks: TV ant NNE. Irreguarly attended.

ORANGE CO 1 SE
361 H35 (4) L4 S5 F4 U-1 FSS: POUGHKEEPSIE

AIRPORT DIRECTORY

ITICELLO
JLLIVAN CO 1 S
1500 38 (1) L4 FSS: POUGHKEEPSIE
Remarks: Irregularly attended.

ITOUR FALLS
I MARTIN 1 NE
460 20 (1) S1 F2 FSS: ELMIRA

AVIA
AN'S Adj S
750 18 (1) *L4 F2 U-1 FSS: SYRACUSE
Remarks: Attended part time.

RISONVILLE
)RTHWAY 4 SW
420 18 (1) FSS: MONTPELIER
Remarks: Clsd winters except to ski acft.

SAU
JRTIS 1 SW
18 (1) FSS: ALBANY
Remarks: Irregularly attended.

ROW-ARPK Adj W
520 21 (1) S3 F4 U-1 FSS: SYRACUSE (LC GL 4-2479)
Remarks: P-line NE.

LIS FLD See FT PLAIN

BREMEN
JFLO 1 NE
800 28 (1) L S3 F4 U-1 FSS: WATERTOWN
Remarks: P-line W, S. Unattended.

BURGH
DDLE HOPE ARPK 3 N
450 16 (1) FSS: POUGHKEEPSIE
Remarks: P-line SW. Rgt tfc W.

CITY
IRISTIE 1 N
150 16 (2) S3 F2 FSS: POUGHKEEPSIE

PALTZ
ANTON 1 W
310 23 (1) S3 F2 FSS: POUGHKEEPSIE
Remarks: Threshold displaced 170' rnwy 32.

YORK
USHING 1 NW
1 H33 (2) L4 S5 F4 U-1
FSS: TETERBORO (LC TW B-5256)
Remarks: Rgt tfc N. clsd after 2230. Parking FEE after 1 hr.
Left turn after ldg runway 18, 36.

HN F KENNEDY See Section IV-A

GUARDIA See Section IV-A

;ARA FALLS
)LONIAL VILLAGE 4 NE
525 22 (1) S5 F2 FSS: BUFFALO (LC BU 4-7686)
Remarks: P-line S.

NIAGARA FALLS MUNI See Section IV-A

NORSAIR See SHERMAN

NORTH BAY Adj NE
500 16 (2) FSS: UTICA
Remarks: P-line S.

NORTH TONAWANDA
COUNTY LINE 3 E
577 21 (4) S5 F2 FSS: BUFFALO (LC NF 2-6083)

NORTHVILLE
PLATEAU SKY RANCH 3 E
1062 27 (2) FSS: GLENS FALLS
Remarks: P-line N.

RED BARN 3 SW
800 30 (1) F4 FSS: GLENS FALLS

NORTHWAY See MORRISONVILLE

NORWICH
EATON 2 N
1019 38 (1) *BL4, 10 S5 F4 U-1 VASI: Rnwy 1
FSS: BINGHAMTON

NUN-DAKAHET See INTERLAKEN

OGDENSBURG MUNI *IFR* 1 SE AOE
293 H52 (2) BL4 S5 F5 FSS: MASSENA

OLCOTT
PALMER 1 SW
315 25 (1) S5 F2 FSS: BUFFALO
Remarks: Clsd winters.

OLD FORGE 1 N
1750 33 (1) *L S3 F4 U-1 FSS: UTICA
Remarks: Flare puts avbl on 6 hr prior notice; ldg FEE for commercial and executive acft only. Clsd winters.

OLD RHINEBECK See RHINEBECK

OLEAN
MIDWAY 2 NW
1580 18 (3) S3 F2 U-1 FSS: BRADFORD

OLEAN MUNI *IFR* 10 NE
2118 H47 (1) BL4 F4 U-1 FSS: BRADFORD
VFR ADV: For APP CON, DEP CON see ERIE/PORT ERIE PENNSYLVANIA in Section IV-A

ONEIDA COUNTY See UTICA, ONEIDA COUNTY in Section IV-A

ONEIDA LAKE ARPK See LAKEPORT

ONEONTA
F AND F ARPK 3 E
1110 34 (1) S3 F4 U-1 FSS: BINGHAMTON

ONTARIO
BAILEY 4 N
25 (1) FSS: ROCHESTER

AIRPORT DIRECTORY

ORANGE CO See MONTGOMERY

ORCHARD PARK 2 N
790 20 (1) F2 FSS: BUFFALO (LC NF 2-6083)
Remarks: Attended days summer only.

ORIENT
ROSE 1 NE
20 11 (1) *L2 F2 U-1 FSS: ISLIP
Remarks: P-line S. FEE for commercial acft.

O W D See TUPPER LAKE

OWEGO
OWEGO HEAT TREAT 4 E
810 18 (1) FSS: BINGHAMTON
Remarks: Floods Jan 15-Mar 15.

TIOGA 2 SW
810 25 (1) FSS: BINGHAMTON
Remarks: P-line E.

PADDOCK FLD See ALEXANDRIA BAY

PAINE'S See WATERLOO

PAINTED POST
CORNING-PAINTED POST 2 NW
960 29 (1) S4 F2, 4 FSS: ELMIRA
Remarks: Rgt tfc on tkof SE rnwy.

PALMER See OLCOTT

PALMYRA ARPK 1 N
460 23 (1) S5 F3 U-1 FSS: ROCHESTER

PENN YAN 1 S
900 23 (1) S5 F2 FSS: ELMIRA

PERRY-WARSAW 3 W
1555 21 (2) BL4 S5 F4 U-1 FSS: BUFFALO

PHELPS
CANNE 3 NE
580 18 (1) F2 FSS: ROCHESTER

PISECO See ARIETTA

PITTSFORD
BRIZEE-HARMON 2 E
422 25 (2) F2 FSS: ROCHESTER (LC BE 5-5625)
Remarks: P-line SSW.

PLATEAU SKY RANCH See NORTHVILLE

PLATTSBURGH MUNI *IFR* 3 W
371 H50 (3) BL4 S5 F5 U-1 FSS: MONTPELIER
TPA: See remarks below
VFR ADV: For APP CON, DEP CON See BURLINGTON/MUNI, VERMONT In Section IV-A
Remarks: VFR tfc pat for all civil acft in vcnty of arpt is 871' MSL to insure adequate separation from mil jet acft and jet turbulence. Non rdo equipped acft will maintain 2000' MSL until W of arpt. Over that position acft let down to pat alt. Rgt tfc rnwys 14, 19 and 28.

PORT EWEN
AERO LAKE ARPT 1 S
220 22 (1)
Remarks: Rgt tfc rnwy 19. Drainage ditches on E and W side of rnwy.

PORT JERVIS
HUGUENOT 3 NE
480 20 (1) BL3 S3 F2 FSS: POUGHKEEPSIE

POTSDAM 1 E
482 25 (1) S1 F2 U-1 FSS: MONTPELIER
Remarks: P-line W. Clsd spring season. Unattended.

POUGHKEEPSIE
DUTCHESS CO *IFR* 5 S
165 H40 (2) BL2, 4, 6, 11 S5 F4, 5 P-1
FSS: POUGHKEEPSIE or [illegible]
Remarks: Use rnwys only. REIL rnwy 24.

POVERO See WATERLOO

RAINBOW See GREENVILLE

RAMAPO VALLEY See SPRING VALLEY

RANDALL See MIDDLETOWN

RANDOLPH AVIATION 2 W
1710 24 (2) S5 F2 FSS: BRADFORD
Remarks: P-line N. Attended evenings & weekends.

RED BARN See NORTHVILLE

REPUBLIC AVIATION CORP See FARMINGDALE, REPUBLIC AVIATION CORP in Section IV-A

RICHLAND 1 E
560 25 (1) FSS: WATERTOWN
Remarks: P-line S.

RHINEBECK
OLD RHINEBECK 3 NE
350 20 (1) S5 F2 FSS: POUGHKEEPSIE

RICHARDS FLD See MASSENA

RIPLEY 2 NW
650 19 (1) F2 FSS: ERIE

ROCHESTER
HYLAN FLD 2 NW
525 26 (2) S5 F3 FSS: ROCHESTER (LC BE 5-5[illegible]
VFR ADV: For APP CON, DEP CON See ROCHESTER-ROCHESTER-MONROE CO in Section IV-A
Remarks: P-line NW.

ROCHESTER-MONROE CO See Section IV-A

ROME
BECK'S GROVE 7 NW
450 H18 (1) S5 F2 U-1 FSS: UTICA
Remarks: 3400' strip avbl.

AIRPORT DIRECTORY

SCOE
ODGES 1 NE
1380 27 (2) S3 F4 FSS: POUGHKEEPSIE
Remarks: P-line W.

KYTOP 5 SW
2200 15 (2) S5 F2 FSS: POUGHKEEPSIE
Remarks: P-line N.

E See ORIENT

IND LAKE 1 SE
175 18 (1) S3 FSS: ALBANY

ALTON See GASPORT

ER'S SKYPORT See GOUVERNEUR (FOWLER)

KONEN See SPENCER

AMANCA 1 S
1403 15 (1) S1 F2 FSS: BRADFORD
Remarks: P-line S. Unattended.

ANAC LAKE
DIRONDACK 5 NW
1654 H50 (3) BL4 S1 F4 U-1 FSS: MASSENA

ENECTADY
CHENECTADY-COUNTY See Section IV-A

ELLS 3 NE
200 10 (1) S5 F2 FSS: ALBANY (LC 869-9225)
Remarks: Attended 24 hrs June-Oct. P-line both ends across river.

JYLERVILLE
RNSEY'S LAND & SEAPLANE BASE 2 S
100 25 (1) S3 F2 FSS: GLENS FALLS
Remarks: Threshold displaced 500' rnwy 02.

OLARIS CO See WARNERVILLE

TIA
Y VALLEY ARPK 3 NE
255 17 (1) F2 FSS: ALBANY (LC 869-9225)
Remarks: Irregularly attended.

IT FLD See LANCASTER

ECA FALLS ARPK 2 SE
190 28 (2) BL4 S5 F2, 4 FSS: SYRACUSE
Remarks: P-line S. Bcn on request

TER ISLAND Adj E
10 17 (1) FSS: ISLIP

MAN
RSAIR 4 SW
640 20 (1) F2

LEY
OOKHAVEN 1 NW
'0 H40 (1) L4 S5 F4 U-1 FSS: ISLIP
Remarks: 1000' paved overrun each end. FEE.

SIDNEY MUNI 1 SW
1012 J1 (2) S1 F2 U-1 FSS: BINGHAMTON

SKANEATELES
EMPIRE AERO SERVICES 2 SW
1030 H32 (1) BL4 S5 F4 FSS: SYRACUSE
Remarks: 3800' strip avbl.

SKY PORTEL See MONTAUK

SKYTOP See ROSCOE

SLINGERLANDS
TRI-VILLAGE 1 NW
215 19 (1) S5 F2 FSS: ALBANY (LC 869-9225)

SMITHPORT See UTICA

SOUTH ALBANY See SOUTH BETHLEHEM

SOUTH BETHLEHEM
SOUTH ALBANY 2 NE
200 H28 (1) S3 F3 FSS: ALBANY
Remarks: Irregularly attended.

SPADARO See EAST MORICHES

SPENCER
SAIKKONEN 2 E
975 16 (1) S5 FSS: BINGHAMTON
Remarks: Irregularly attended.

SPORT HAVEN ARPK See CAIRO

SPRING VALLEY
RAMAPO VALLEY 1 E
420 H18 (2) L4 S5 F4 U-1
FSS: TETERBORO (LC TW 8-5256)
Remarks: 400' overrun W. end.

STANTON See NEW PALTZ

STEFFEN See EAST AMHERST

STORMVILLE 1 NE
350 28 (2) S3 F3 U-1 FSS: POUGHKEEPSIE

SULLIVAN CO See MONTICELLO

SUN DOWNS See ITHACA

SYRACUSE HANCOCK See Section IV-A

TAYLOR-VAN GELDER See HAMMONDSPORT

THOMPKINS CO See ITHACA

TICONDEROGA MUNI 2 NE
236 32 (2) BL4 FSS: GLENS FALLS
Remarks: Unattended. Lgts oper May thru Nov.

TIOGA See OWEGO

TRANSIT ARPK See LOCKPORT

AIRPORT DIRECTORY

TRI-CITIES See ENDICOTT

TIR-CO AIRWAYS See WEST EDMESTON

TRI-VILLAGE See SLINGERLANDS

TUPPER LAKE
O W D 1 NE
1560 26 (1) F4 FSS: MASSENA
Remarks: Unattended.

UTICA
ONEIDA COUNTY See Section IV-A

SMITHPORT 3 SE
1150 26 (1) F2 FSS: UTICA (LC RE 6-9023)
Remarks: P-line W. Attended summers only.

VAN'S See MORAVIA

WALLKILL
KOBELT 2 NE
420 34 (1) L4 S5 F4 U-1 FSS: POUGHKEEPSIE

WARNERVILLE
SCHOLARIS CO Adj NE
910 18 (1) FSS: ALBANY
Remarks: P-lines N & W.

WARREN CO See GLENS FALLS

WARWICK 3 NE
540 23 (2) S5 F3 U-1 FSS: POUGHKEEPSIE

WATERLOO
PAINE'S 2 NW
490 16 (1) F2 FSS: SYRACUSE

POVERO 3 S
590 28 (1) FSS: SYRACUSE
Remarks: P-line E. Attended summer weekends only.

WATERTOWN MUNI *IFR* 5 NW AOE
325 H50 (3) BL4 S3 F4 FSS: WATERTOWN on Fld

WEBBER'S See LINLITHGO

WEEDSPORT
WHITFORD'S 2 NE
390 20 (2) S3 F2 FSS: SYRACUSE
Remarks: P-line S.

WELLS See SCHENECTADY

WELLSVILLE MUNI 1 NW
1506 H38 (1) S3 F4 U-1 FSS: BRADFORD

WESTCHESTER CO See WHITE PLAINS, WESTCHESTER CO in Section IV-A

WEST EDMESTON
TRI-CO AIRWAYS 2 SW
1150 30 (1) F2 FSS: UTICA
Remarks: Unattended.

WESTERLO 1 NW
1400 30 (1) *L4 F4 FSS: ALBAN
Remarks: Irregularly attended.

WESTPORT 2 S
277 18 (3) L4 S3 F2 FSS: MONTPELIE
Remarks: P-line E. Unattended. Closed winters.

WESTVILLE
COOPERTOWN-WESTVILLE 1 W
1245 21 (1) BL4, 10 S5 F2 U-1 VASI: Avbl.
FSS: UTIC
Remarks: 200' overrun S end. Rgt tfc N.

WHITE PLAINS WESTCHESTER CO See Section IV-A

WHITFORD'S See WEEDSPORT

WILLIAMSON-SODUS See EAST WILLIAMSON

WOLCOTT
HILLTOP ARPK 3 S
465 40 (1) F2 FSS: SYRACUSE
Remarks: P-line S.

WURTSBORO 2 NE
560 31 (4) S5 F4 U-1 FSS: POUGHKEEPSIE
Remarks: P-line NW. FEE for commercial acft.

ZAHNS ARPT INC See AMITYVILLE

NORTH CAROLINA

ABERDEEN 1 W
415 24 (2) F2 FSS: FAYETTEVILLE
Remarks: P-line NW, SE. Unattended

AHOSKIE
JERNIGAN 2 S
60 19 (1) L4 S1 F2 FSS: ELIZABETH CITY

AIR HARBOR INC See GREENSBORO

ALBEMARLE 2 SE
565 32 (1) *L1 S3 F4 U-1 FSS: HICKORY

ALLEN'S See RAMSEUR

ANDREWS-MURPHY ARPK 2 W
1700 45 (1) S3 F4 FSS: ANDERSON
Remarks: Rgt tfc NE.

ANSON CO See WADESBORO

ASHEBORO
HINSHAW 2 N
800 16 (1) F4 FSS: RALEIGH
Remarks: Irregularly attended.

PUGH FLD 3 NE
650 20 (1) S1 F4 FSS: RALEIGH
Remarks: Land N, tkof S.

AIRPORT DIRECTORY

EVILLE
SHEVILLE ARPK 3 NW
2210 16 (1) S1 F2 FSS: GREER (LC 684-4401)

SHEVILLE MUNI See Section IV-A

:RY CO (MORRISON FLD) See SPRUCE PINES

.UFORT-MOREHEAD CITY *IFR* 1 N
13 H42 (3) S3 F4 U-1 FSS: NEW BERN

LY MITCHELL See HATTERAS

NVILLE 1 SW
:050 15 (1)
Remarks: Land N tkof S.

VARD 1 SE
2125 21 (1) F2 FSS: GREER
Remarks: P-line SW.

)GES ARPK See SHELBY

CKENBROUGH See CHARLOTTE

SON CITY
)SSAMON FLD Adj W
1970 22 (1) F4 FSS: ANDERSON
Remarks: Attended days.

LINGTON
IRLINGTON MUNI 3 SW
538 H37 (1) BL4 S5 F4 U-1 FSS: RALEIGH

.IRCHILD FLD 1 E
540 H35 (2) S3 F4 FSS: RALEIGH
Remarks: P-line NE.

PENTER See CHARLOTTE

/ELL See YANCEYVILLE

PEL HILL
.LIAMS 1 N
)02 49 (3) F4 FSS: RALEIGH
Remarks: Soft when wet.

RLOTTE
OCKENBROUGH 5 N
)00 26 (2) S5 F4 U-1 FSS: HICKORY (LC ED 2-7262)
Remarks: P-line SSE.

RPENTER 9 SW
)50 40 (1) S5 F4 U-1 FSS: HICKORY (LC ED 2-7262)
Remarks: P-line W. 2565' asphalt strip avbl.

UGLAS MUNI See Section IV-A

A GROVE 2 E
'50 20 (1) FSS: HICKORY

TON 2 N
60 22 (1) S5 F4 U-1 FSS: FAYETTEVILLE
Remarks: P-lines NE, SE.

CONCORD
TWIN CITY 1 W
700 23 (1) F2 FSS: HICKORY

DARR FLD See HIGH POINT

DOUGLAS MUNI See CHARLOTTE, DOUGLAS MUNI in Section IV-A

DIELARD See LEXINGTON

DRAPER
TRI-CITY Adj N
560 26 (1) S1 FSS: RALEIGH
Remarks: Unattended. Hazard when wet.

DURHAM
WILKENS 7 NE
310 26 (2) S5 F2 FSS: RALEIGH
Remarks: P-line NW. Soft when wet.

EDENTON MUNI 3 SE
19 H56 (3) FSS: ELIZABETH CITY

ELIZABETH CITY MUNI 3 SW
15 44 (3) S5 F4 FSS: ELIZABETH CITY
Remarks: P-line N, E.

ELIZABETHTOWN
FISHER FLD 2 SE
120 31 (2) *L4 F2 U-1 FSS: MYRTLE BEACH

ELKIN 3 SW
1100 21 (2) FSS: HICKORY

ERWIN 1 SW
195 29 (1) *L4 S1 F2 FSS: FAYETTEVILLE

FAIRCHILD FLD See BURLINGTON

FAIRFIELD
MATTAMUSKEET Adj W
5 36 (1) F2 FSS: ELIZABETH CITY

FISHER FLD See ELIZABETHTOWN

FAYETTEVILLE GRANNIS FLD See Section IV-A

FIRST FLIGHT See KILL DEVIL HILLS

FOREST CITY 3 NW
990 19 (1) FSS: GREER

FRANKLIN 1 SE
2020 27 (1) *L4 F4 U-1 FSS: ANDERSON
Remarks: Lgts avbl call LA 4-3296 or LA 4-2340. Left tfc.
Attended summer only.

FRANKLIN FLD See LOUISBURG

GARLAND 2 SE
125 23 (1) L4

AIRPORT DIRECTORY

GASTONIA MUNI 4 SE
803 H30 (1) BL4 S5 F4 U-1 FSS: HICKORY

GIBSONVILLE
McLEAN BROS 1 SW
723 22 (1) S5 F2 U-1 FSS: RALEIGH

GOLDSBORO MUNI 6 NW
134 24 (1) L4 S1 F4 U-1 FSS: ROCKY MOUNT

GRANNIS FLD See FAYETTEVILLE in Section IV-A

GREENSBORO
AIR HARBOR INC 6 N
822 22 (1) *L4 S5 F4 FSS: RALEIGH (LC BR 5-6341)

GREENSBORO-HIGH POINT See Section IV-A

MID ATLANTIC AIRWAYS 3 NW
860 22 (1) F1 FSS: RALEIGH (LC BR 5-6341)

PITT-GREENVILLE 2 NW
25 H50 (3) L4 FSS: ROCKY MOUNT
Remarks: Rgt tfc rnwys 19, 25, 32.

GRIFFINS See SUMMERFIELD

HACKETT'S FLD See RANDLEMAN

HALIFAX CO See ROANOKE RAPIDS

HARRINGTON See LEWISTON

HATTERAS
BILLY MITCHELL 3 NE
15 H24 (1) F3 FSS: ELIZABETH CITY
Remarks: Fuel summer months only.

HENDERSON 3 S
490 17 (1) FSS: RALEIGH
Remarks: Unattended. Emgcy fuel only.

HENDERSONVILLE-MEYER 1 SE
2084 30 (1) S5 F4 U-1 FSS: GREER (LC OX 2-4284)

HIATT See THOMASVILLE

HICKORY MUNI *IFR* Adj W
1176 H49 (3) BL4 S5 F4 U-1 FSS: HICKORY on Fld
Remarks: Rnwy lgts on request after 2200.

HIGH POINT
DARR FLD 3 S
874 18 (1) S3 F4 U-1 FSS: RALEIGH
Remarks: P-line W.

MIDWAY 3 SW
892 26 (1) S5 F4 U-1 FSS: RALEIGH

HINSHAW See ASHEBORO

JACKSONVILLE 2 NE
51 26 (1) L4 S5 F4 U-1 FSS: NEW BERN

JERNIGAN See AHOSKIE

JULIAN
KECKS 2 NE
750 14 (1) FSS: RALEIGH
Remarks: P-line NE.

KECKS See JULIAN

KILL DEVIL HILLS
FIRST FLIGHT 1 W
12 H30 (1) FSS: ELIZABETH CITY
Remarks: Rnwy restricted to acft 10,000 lbs GWT or less.

KINGSTON
STALLINGS FLD *IFR* 3 NW
93 H50 (3) B*L4 S5 F4 U-1 VFR ADV: SEYMOUR JOHNSON APP CON 119.7 122.5R DEP CON 119.7 122.5R FSS: NEW BERN

KNIGHTDALE
WAKE CO 2 E
300 31 (1) FSS: RALEIGH

LAURINBURG-MAXTON See MAXTON

LENOIR
LOWER CREEK 3 NE
1160 23 (1) S1 F2 FSS: HICKORY
Remarks: Unattended. 65' p-line E.

LEWISTON
HARRINGTON 5 SW
40 48 (1) *L4 F4 FSS: ROCKY MOUNT
Remarks: Bcn operg prior request. Center 3000' lgtd. Unattended.

LEXINGTON
DILLARD 3 SW
700 23 (1) *L4 F2 FSS: HICKORY

LINCOLN 2 SW
780 27 (1) F4 FSS: HICKORY
Remarks: P-line SE. Unattended.

LOUISBURG
FRANKLIN FLD 2 W
290 18 (1) F2 FSS: RALEIGH

LOWER CREEK See LENOIR

LUMBERTON MUNI *IFR* 3 W
126 H50 (3) BL4 S5 F4 U-1 VFR ADV: FOR APP CON, DEP CON See FAYETTEVILLE/GRANNIS FLD in Section IV-A FSS: FLORENCE (LC RE 9-3[illegible]

MANTEO 1 NW
12 H33 (3) L4 S5 F4 U-1 FSS: ELIZABETH CITY

MARION FLD 2 N
1211 35 (1) L4 F2 FSS: HICKORY
Remarks: Unattended. Only 2750' of strip lgtd.

MATTAMUSKEET See FAIRFIELD

AIRPORT DIRECTORY

RINBURG-MAXTON 3 NW
220 H65 (2) F2 FSS: FAYETTEVILLE

ODAN

0 1 W
720 23 (2) F2 FSS: RALEIGH
Remarks: P-line E.

JLLEN See WARSAW

EAN BROS See GIBSONVILLE

ATLANTIC AIRWAYS See GREENSBORO

LESEX
ONE 4 N
210 13 (1)

'AY See HIGHPOINT

ER'S See MOORESVILLE

OE
UTE MUNI 3 N
80 28 (3) *L4 S5 F4 FSS: HICKORY
emarks: P-lines S, SE, W.

ESVILLE
LER'S 4 NE
75 20 (1) S1 F2 FSS: HICKORY
emarks: P-line N.

ANTON
ERSIDE 2 W
020 22 (1) S1 F2 FSS: HICKORY
emarks: Unattended. P-line S.

IRY 2 SW
050 19 (1) S1 F4 FSS: HICKORY
emarks: Land N, tkof S.

LE See SELMA

BERN
MONS-NOTT *IFR* 2 SE
8 H48 (2) BL4 S5 F4 U-1 FSS: NEW BERN on Fld

ANOVER CO See WILMINGTON, NEW HANOVER CO in
ion IV-A

RD
NG 1 S
75 17 (1) FSS: RALEIGH
emarks: Unattended.

URST-SOUTHERN PINES See SOUTHERN PINES

HILL Adj E
00 30 (1)

GREENVILLE See GREENVILLE

FLD See ASHEBORO

RALEIGH
RALEIGH-DURHAM See Section IV-A

RALEIGH MUNI 3 S
364 H24 (3) S3 F4 FSS: RALEIGH (LC TE 2-1986)
Remarks: P-lines SE, W. Apch rnwy 4 blkd by trees.

RAMSEUR
ALLEN'S 3 SE
486 26 (1) F2 FSS: RALEIGH
Remarks: P-line S. Unattended.

YORK'S FLD 1 NW
550 19 (1) F2 FSS: RALEIGH
Remarks: P-line S. Unattended.

RANDLEMAN
HACKETT'S FIELD 4 NE
900 21 (1) F2
Remarks: Wires SW. Soft when wet.

REIDSVILLE
WARF 3 SW
820 24 (1) *L4 S1 F2 FSS: RALEIGH

RICH SQUARE 1 S
78 29 (1) FSS: ROCKY MOUNT
Remarks: P-line NW.

RIVERSIDE See MORGANTOWN

ROANOKE RAPIDS
HALIFAX CO 3 SW
259 H30 (1) BL4 S1 F4 U-1 FSS: ROCKY MOUNT

ROCKINGHAM-HAMLET 3 S
358 43 (2) *L4 S3 F4 U-1 FSS: FLORENCE

ROCKY MOUNT MUNI *IFR* 2 N
97 H40 (2) BL4 S5 F4 U-1 VFR ADV: FOR APP CON, DEP CON See RALEIGH-DURHAM in Section IV-A FSS: ROCKY MOUNT on Fld
Remarks: P-line NW.

ROWAN COUNTY See SALISBURY

RUTHERFORD See SPINDALE

SALISBURY
ROWAN COUNTY 3 SW
775 H42 (1) BL4 S5 F4 U-1 FSS: HICKORY

SANFORD MUNI 3 S
400 H35 (1) BL4 S1 F4 U-1 FSS: FAYETTEVILLE
Remarks: Restricted to 25,000 lbs.

SELMA
MYRTLE 1 E
172 18 (1) FSS: RALEIGH
Remarks: P-line SW.

SHELBY
BRIDGES ARPK 3 NE
975 18 (1) S5 FSS: GREER

AIRPORT DIRECTORY

SHELBY MUNI 3 SW
847 H43 (1) BL4 S5 F4 FSS: GREER

SHUTE MUNI See MONROE

SIMMONS-NOTT See NEW BERN

SMITH REYNOLDS See WINSTON-SALEM, SMITH REYNOLDS in Section IV-A

SOSSAMON FLD See BRYSON CITY

PINEHURST-SOUTHERN PINES *IFR* 3 N
460 H45 (1) BL4 S5 F4, JP4 VFR ADV: FOR APP CON, DEP CON See FAYETTEVILLE/GRANNIS FLD in Section IV-A FSS: FAYETTEVILLE
Remarks: Fee for multi-eng acft less than min of svcg.

SPINDALE
RUTHERFORD 2 SE
1012 17 (1) F2 FSS: GREER
Remarks: Unattended.

SPRUCE PINES
AVERY CO (MORRISON FLD) 4 NE
2750 H30 (1)

STALLINGS FLD See KINSTON

STATESVILLE MUNI 3 W
991 H37 (2) BL4 S5 F4 U-1 FSS: HICKORY

STONE See MIDDLESEX

SUMMERFIELD
GRIFFINS 2 SE
800 16 (1) S5 F2 FSS: RALEIGH

TAYLORSVILLE 1 NW
1140 20 (1) F2 FSS: HICKORY
Remarks: Unattended.

THAYER See THOMASVILLE

THOMASVILLE
HIATT 3 SW
855 22 (2) S5 F2 FSS: RALEIGH
Remarks: Attended wk-ends.

THAYER 2 S
910 24 (2) FSS: RALEIGH
Remarks: P-lines N.

TRI-CITY See DRAPER

TWIN CITY See CONCORD

WADESBORO
ANSON CO 3 N
220 17 (1)

WAKE CO See KNIGHTDALE

WALLACE MUNI 1 S
37 35 (1) BL4 F2 U-1 FSS: MYRTLE BEACH
Remarks: Daylight hrs. June-Aug, weekend days Sep-May.

WARF See REIDSVILLE

WARSAW
McCULLEN Adj E
150 39 (1) F2
Remarks: Unattended. P-line SW.

WASHINGTON MUNI 2 N
38 H50 (3) L4 S5 F4 U-1 FSS: NEW BERN
Remarks: Rgt tfc pat NE, ESE, SSE.

WILKESBORO
WILKES CO 2 SW
995 H36 (1) BL4 U-1
Remarks: Unattended.

WILKINS See DURHAM

WILLIAMS See CHAPEL HILL

WILMINGTON NEW HANOVER CO See Section IV-A

WILSON MUNI 3 NW
161 H45 (3) L4 S5 F4 U-1 FSS: ROCKY MOUNT

WINSTON-SALEM SMITH REYNOLDS See Section IV-A

YADKINVILLE 1 NE
960 25 (1) F2
Remarks: Irregularly attended.

YANCEYVILLE
CASWELL 3 W
640 20 (1)

YORK'S FLD See RAMSEUR

YOUNG See OXFORD

ZEBULON 3 N
324 21 (1) S1 F2 FSS: RALEIGH (LC TE 2-1[illegible]
Remarks: P-line E.

NORTH DAKOTA

AERIAL SPRAY SERVICE See RUSSELL

ALEXANDER
GAJEWSKI FLD 3 NW
2100 21 (1) FSS: MINOT
Remarks: P-line N.

ALLMARAS PORT See NEW ROCKFORD

ANDERSON SKY RCH See POWERS LAKE

ARTHUR
TURNER FLD 3 SE
980 22 (1) F3 FSS: FARGO
Remarks: Unattended.

AIRPORT DIRECTORY

LEY MUNI 1 SE
2030 40 (2) BL4 FSS: BISMARCK

LOW
ORTH 4 E
1530 13 (1) F2 FSS: JAMESTOWN

CH MUNI 1 NW
2814 30 (2) F2 FSS: DICKINSON
Remarks: P-lines SE, NE. Unattended.

DON 3 NE
2345 20 (1)
Remarks: P-lines S.

FIELD
ENSON 13 S
2900 20 (3)

LAH 2 SW
1800 23 (3) S1 FSS: BISMARCK
Remarks: Unattended.

ARCK MUNI See Section IV-A

ER See KENMARE

IME See NECHE

DER INTL See NOONAN

TH See BARLOW

TINEAU 1 E
675 28 (2) BL4 F4 FSS: MINOT
Remarks: Soft when wet. P-line W. unatnd.

ELLS MUNI 1 NE
947 23 (1) FSS: MINOT

IAN 1 W
000 40 (5) S5 F4 FSS: DICKINSON
emarks: P-line N. Unattended.

DOCK
BOUGH FLD 1 NE
950 19 (3) F2 FSS: BISMARCK

D See TAYLOR

TFORD
DERMAN Adj E
510 26 (2) S1 F2 FSS: JAMESTOWN
emarks: P-line N, NW.

HUS FLD See NORMA

DHEAD See CARSON

N See DAZEY

ALO
EVE AIRPORT 4 NE
200 26 (1) F2 FSS: FARGO
emarks: Unattended.

BUFORD
STIEHL 5 NW
2300 17 (2) FSS: MINOT

CANDO MUNI 1 SW
1482 27 (3) *L1 F2 FSS: MINOT
Remarks: P-line N, E, NW, SE. Unattended.

CARRINGTON
MATHENY FLD 1 W
1610 29 (2) L4 F4 FSS: JAMESTOWN
Remarks: Lgts prior request after 2400. Displaced thresholds; rnwy 32, 375' NW; rnwy 14,50' SE.

CARSON
BROADHEAD 3 S
2300 22 (3) FSS: BISMARCK
Remarks: Use at own risk.

CAVALIER MUNI 1 SW
889 21 (1) S3 F2 FSS: GRAND FORKS
Remarks: P-line SE. Attended irregularly, summer only. Rnwys rough & soft in spots. Use at own risk.

CHANDLER See WILLISTON

COLFAX
KURUC 6 SW
1010 26 (1) F2
Remarks: Use at own risk. P-lines E. W end ruf. Unattended.

COLUMBUS 1 SW
1930 26 (3) B F2 FSS: MINOT
Remarks: Unattended.

COOPERSTOWN 1 SE
1425 26 (3) S5 F2 FSS: JAMESTOWN

CROSBY Adj N
1962 34 (4) BL4 F3 FSS: MINOT
Remarks: Rnwy lgts SS-2400. Unattended.

CRYSTAL
REDMANN 3 NE
890 21 (1) F2 FSS: GRAND FORKS
Remarks: Unattended.

DAVENPORT
SCHROEDER 2 W
920 26 (1) F2 FSS: FARGO
Remarks: Irregularly attended.

DAZEY
BRYAN 1 E
1431 26 (2) F2

DEVILS LAKE MUNI 2 W
1450 H43 (3) BL4 F4 U-1 FSS: GRAND FORKS
Remarks: P-line SW.

DICKEY MUNI 1 SE
1370 22 (1)
Remarks: P-lines SE.

AIRPORT DIRECTORY

DICKINSON MUNI *IFR* 5 S
2589 H54 (2) BL4 S5 F4 U-1 FSS: DICKINSON on Fld.
Remarks: Rnwy lgts on request to FSS.

DITTMER See LYNCHBURG

DOYLE LNDG STRIP See VELVA

DRAKE Adj NW
1674 26 (1) FSS: MINOT

DUNSEITH 1 S
1685 17 (1) FSS: MINOT

DURBIN Adj NW
930 22 (1) F2 FSS: FARGO
Remarks: P-lines NE. Unattended.

EDGELEY 1 SW
1580 24 (1) *L4 F2 FSS: JAMESTOWN
Remarks: P-line W. Unattended.

ELGIN MUNI Adj E
2343 23 (2) S1 FSS: BISMARCK
Remarks: Unattended.

ELLENDALE 1 NE
1450 26 (3) FSS: JAMESTOWN

ENDERLIN
SKY HAVEN RCH 1 W
1147 24 (2) F2 FSS: JAMESTOWN
Remarks: Clsd Jan-Apr 15. Unattended.

FARGO HECTOR FLD See Section IV-A

FINLEY 1 E
1400 24 (2) FSS: GRAND FORKS
Remarks: P-lines N.

FLORA
GILBERTSON FLD 1 SE
1550 26 (1) S1 FSS: JAMESTOWN
Remarks: P-line N.

FLYING S RANCH See MINOT

GACKLE MUNI 1 SW
1930 23 (2)

GAJEWSKI FLD See ALEXANDER

GENSRICH See HATTON

GILBERTSON FLD See FLORA

GLEN ULLIN 1 W
2095 28 (3) *L2 FSS: BISMARCK
Remarks: P-line NE. Unattended. Bcn prior request.

GRAFTON MUNI 2 SE
820 H30 (2) L4 S1 F3 FSS: GRAND FORKS
Remarks: E/W rnwy soft when wet.

GRAND FORKS INTL *IFR* 4 NW AC
842 H53 (2) BL4, 6 S5 F4 FSS: GRAND FORKS [illegible] F
VFR ADV: GRAND FORKS APP CON 118.1 DEP CON 118.1
Remarks: Rnwy lgts dusk to midnight. Thereafter thru FSS.

GRENORA Adj NE
2130 18 (1)

GRIEVE ARPT See BUFFALO

GWINNER
MELROE 1 SE
1265 25 (2) *L4 F4 FSS: JAMESTOWN
Remarks: P-line N. Unattended.

HAMRY FLD See KINDRED

HANKINS FLD See PARSHALL

HARVEY MUNI 1 N
1605 27 (4) F2 FSS: MINOT
Remarks: P-lines W, SW, NW. Unattended Sats.

HATTON
GENSRICH 5 NE
1000 26 (1) S2 F2 FSS: GRAND FORKS
Remarks: P-line S.

PETERSON 4 SW
1050 26 (1) FSS: GRAND FORKS
Remarks: P-line N. Unattended.

HAZELTON MUNI 1 E
2040 21 (1) F2 FSS: BISMARCK
Remarks: Bldgs, P-line W. Unattended.

HAZEN MUNI 2 E
1900 30 (2) FSS: BISMARCK
Remarks: P-line N.

HEBRON 2 NE
2180 21 (2) S5 F2 FSS: DICKINSON
Remarks: P-line NW.

HECTOR FLD See FARGO, HECTOR FLD in Section IV-A

HENSEL 1 W
940 15 (1) S1 F2 FSS: GRAND FORKS
Remarks: Unattended.

HETTINGER 1 NW
2675 H35 (2) L4 S3 F3 FSS: DICKINSON

HOMESTEAD See WYNDMERE

JAMESTOWN MUNI *IFR* 1 NE
1498 H57 (2) BL6 S5 F4 FSS: JAMESTOWN [illegible] F
Remarks: Rnwy lgts avbl on request thru FSS.

JOHNSON See NEWBURG

AIRPORT DIRECTORY

IE
LSON 5 NE
450 14 (1) FSS: MINOT
Remarks: P-line N.

ARE
OMER 4 SE
950 26 (2) FSS: MINOT
emarks: 80/87 fuel emgcy only.

MARE MUNI 3 N
947 29 (3) F2 FSS: MINOT
emarks: Unattended.

ED
RY FLD Adj E
10 18 (1) S3 F2 FSS: FARGO
emarks: P-lines N, S. Unattended.

C See COLFAX

TA MUNI 1 SE
515 25 (2) FSS: GRAND FORKS

See RHAME

DON MUNI 1 W
008 25 (3) L4 F2 U-1 FSS: GRAND FORKS
emarks: P-line NW. Unattended.

FORD Adj SW
011 19 (1) FSS: MINOT

ORE
CLUB 1 NW
30 26 (1) FSS: GRAND FORKS
marks: P-line N. Unattended.

Adj SE
08 21 (1) F2 FSS: MINOT
marks: Unattended.

RMAN See BRANTFORD

N MUNI 3 S
70 20 (2) L4 F2 FSS: BISMARCK
marks: Unattended.

MUNI 2 W
40 20 (3) S1 F4 FSS: JAMESTOWN

IBURG
MER 3 N
0 20 (1) F2 FSS: FARGO
marks: P-lines S & E. Unattended.

T AIRFLD Adj S
95 26 (1) FSS: MINOT
marks: P-line NW.

N MUNI 3 S
48 26 (3) S5 F4 FSS: BISMARCK

NY FLD See CARRINGTON

MAYVILLE MUNI 1 S
975 21 (2) S5 F2 FSS: GRAND FORKS
Remarks: Unattended.

McVILLE MUNI 1 NW
1473 35 (1) FSS: GRAND FORKS
Remarks: P-line SE. Unattended.

MEDINA
RAU FLD 5 SE
1855 20 (1) S3 F2
Remarks: Unattended. Use at own risk.

MELROE See GWINNER

MICHIGAN
WRIGHT 1 NW
1520 20 (4) FSS: GRAND FORKS
Remarks: P-line N, NW.

MILNOR MUNI 1 E
1091 26 (1) F2 FSS: JAMESTOWN

MINOT
FLYING S RANCH 5 SW
1840 48 (2) *L4 U-1 FSS: MINOT (LC TE 3-8112)
Remarks: P-line S. Bcn on prior request.

MINOT INTL *IFR* 1 NE AOE
1723 H63 (3) BL4, 6 S5 F4, JP-1 FSS: MINOT on Fld
VFR ADV: MINOT APP CON 118.5 DEP CON 118.5
Remarks: 5800' lgtd ngts. Lgts on request to FSS.

MOHALL MUNI 1 W
1650 32 (3) S1 F2 FSS: MINOT
Remarks: Unattended.

MOTT
WYMAN FLD 1 S
2495 28 (3) S1 F2 FSS: DICKINSON
Remarks: P-lines W, NW. Unattended.

NECHE
BONAIME 4 SE
800 22 (1) S2 F2

NELSON See KEENE

NELSON See SHERWOOD

NEWBURG
JOHNSON 4 NE
1400 16 (1) FSS: MINOT

NEW ROCKFORD
ALLMARAS PORT 6 W
1530 18 (2) F2 FSS: JAMESTOWN
Remarks: P-line S, SE. Unattended.

TOMLINSON FLD 1 N
1533 37 (4) BL4 S5 F2 U-1 FSS: JAMESTOWN
Remarks: P-lines NE, W.

AIRPORT DIRECTORY

NEW TOWN MUNI Adj S
1920 26 (1) FSS: MINOT

NOONAN
BORDER INTL 6 N
1898 26 (2) FSS: MINOT
Remarks: P-line E & N.

NOONAN Adj SE
1980 20 (3) F3 FSS: MINOT
Remarks: NE, W, NW blkd.

NORMA
BREKHUS FLD 6 NE
1850 53 (1) S3 F2 FSS: MINOT
Remarks: P-line W. Unattended.

NORTHWOOD
OFFERDAHL 5 E
1080 26 (1) F2 FSS: GRAND FORKS
Remarks: P-line N. Unattended.

VINCE FLD 1 SW
1120 21 (1) S5 F2 FSS: GRAND FORKS

OAKES 1 W
1310 20 (1) S3 F2 FSS: JAMESTOWN

OFFERDAHL See **NORTHWOOD**

OLSON See **SARLES**

PARK RIVER
SKJERVENS 1 W
1100 26 (2) S1 F2 FSS: GRAND FORKS
Remarks: Winter mos circle town for svc.

PARSHALL
HANKINS FLD 1 SW
2032 21 (3) B*L4 U-1 FSS: MINOT
Remarks: Attended May-Sept.

PEMBINA MUNI 1 S AOE
792 28 (2) B*L2 S5 F4 FSS: GRAND FORKS
Remarks: P-line N, E.

PETERSON See **HATTON**

PORTAL MUNI Adj S AOE
1970 30 (2) FSS: MINOT
Remarks: P-line NW.

POWERS LAKE
ANDERSON SKY RANCH 1 NW
2150 25 (2) L S5 F2 FSS: MINOT
Remarks: P-line SE. Use E/W strip emgcy only.

RAMBOUGH FLD See **BRADDOCK**

RAU FLD See **MEDINA**

RAY 1 NE
2160 21 (2) F2 FSS: MINOT
Remarks: Unattended.

REDMANN See **CRYSTAL**

REEDER Adj S
2840 21 (1) F2 FSS: DICKINSON
Remarks: Unattended.

REGAN MUNI Adj SE
2032 28 (1) S3 F2

RHAME
LAMB 4 SW
3000 40 (2) F3

RIVERDALE No 1 3 W
1700 27 (1) FSS: BISMARCK

ROBINSON
WARD WHITMAN 3 SE
1800 18 (1) F3 FSS: BISMARCK
Remarks: Unattended.

ROLETTE Adj W
1600 21 (1) FSS: MINOT
Remarks: P-line S. Unattended.

ROLLA 1 N
1818 26 (2) BL4 S1 F2 FSS: MINOT

RUGBY MUNI 2 NW
1547 H27 (3) BL4 S5 F3 FSS: MINOT

RUSSELL
AERIAL SPRAY SERV 3 SE
1450 31 (1) F2 FSS: MINOT
Remarks: P-lines E, S. Unattended.

RYDER Adj NE
2109 20 (2) F2 FSS: MINOT
Remarks: Unattended.

SAGASER See **TIOGA**

SARLES
OLSON 3 SW
1700 22 (1) FSS: GRAND FORKS

SCHROEDER See **DAVENPORT**

SHERWOOD
NELSON 6 E
1600 17 (2) F2 FSS: MINOT
Remarks: P-line N. Unattended.

SHERWOOD MUNI 2 N
1650 24 (1) S1 F3 FSS: MINOT
Remarks: P-line E, SE. Unattended.

SKJERVENS See **PARK RIVER**

SKY CLUB See **LARIMORE**

SKY HAVEN RCH See **ENDERLIN**

SLOULIN FLD INTL See **WILLISTON**

AIRPORT DIRECTORY

ILEY 1 SE
2220 21 (1) B FSS: MINOT

HL See **BUFORD**

ISON See **BELFIELD**

LOR
AND 3 SW
2450 22 (2) F2
Remarks: P-line N, E. Unattended.

A
GASER 9 NW
2290 24 (2) F2 FSS: MINOT
Remarks: P-line N. Unattended.

GA MUNI 2 SE
2240 H34 (1) L4 S3 F2 FSS: MINOT
Remarks: Irregularly attended.

INSON FLD See **NEW ROCKFORD**

RISON See **WARWICK**

IER MUNI 1 NE
2482 26 (2) S3 F3 FSS: MINOT
Remarks: P-line NW.

IER FLD See **ARTHUR**

EY CITY MUNI 1 NW
2399 H38 (4) BL4 S1 F4 FSS: JAMESTOWN
Remarks: P-lines S, SE.

'A
YLE LNDG STRIP 3 SE
2585 20 (1) FSS: MINOT

E FLD See **NORTHWOOD**

'ETON MUNI 1 S
2266 27 (2) BL4 S5 F4 FSS: FARGO
Remarks: P-line NE. Lgts dusk to 0200, thereafter on prior request.

ALLA MUNI 1 NE
2252 26 (3) *L4 S1 F2 FSS: GRAND FORKS
Remarks: P-line NW. Irregularly attended.

WHITMAN See **ROBINSON**

ICK
RRISON 7 SW
2536 20 (1) F2 FSS: JAMESTOWN
Remarks: Unattended.

BURN MUNI 4 N
3096 40 (2) BL2 S5 F2 FSS: BISMARCK
Remarks: Lgts after 2400 on prior request.

ORD CITY 1 NE
2051 20 (3) L4 F2
Remarks: Unattended.

WESTHOPE Adj W
1494 32 (2) F2 FSS: MINOT
Remarks: P-line NW. Unattended.

WILDROSE Adj S
2220 26 (1) FSS: MINOT
Remarks: P-line W, NW.

WILLISTON
CHANDLER 2 W
1910 27 (2) FSS: MINOT
Remarks: P-line N, S. Unattended.

SLOULIN FLD INTL *IFR* 2 N AOE
1942 H40 (2) BL4 S5 F4 FSS: MINOT
Remarks: Rgt tfc S & E.

WRIGHT FLD 2 N
1895 25 (4) S5 F2 FSS: MINOT

WIMBLEDON MUNI Adj SW
1490 26 (1) F2 FSS: JAMESTOWN
Remarks: P-line N. Circle town for svc.

WISHEK MUNI 1 SE
2035 33 (2) F2 FSS: BISMARCK
Remarks: P-line W, NW. Unattended.

WRIGHT See **MICHIGAN**

WRIGHT FLD See **WILLISTON**

WYMAN FLD See **MOTT**

WYNDMERE
HOMESTEAD 5 N
1065 18 (3) F2 FSS: FARGO
Remarks: Unattended.

OHIO

ABERDEEN TYLER 1 W
513 32 (1) S3 F2 FSS: CINCINNATI
Remarks: Attended days.

ADA 1 NW
949 19 (1) *L4 F2 FSS: FINDLAY

AKRON
AKRON-CANTON See Section IV-A

MAYFIELD AIRSTRIP 5 SE
1060 23 (1) L4 S1 F2 FSS: AKRON (LC ST 4-1246/7)
Remarks: P-line S. Unattended.

AKRON MUNI See Section IV-A

ALDERMAN FLD See **ST CLAIRSVILLE**

ALLEN CO See **LIMA**

ALLIANCE
ALLIANCE 1 SE
1077 21 (1) L4 S5 F4 U-1 FSS: AKRON
Remarks: P-line S.

AIRPORT DIRECTORY

BARBER 3 N
1062 26 (2) S5 F2 FSS: AKRON
Remarks: P-line NW.

MILLER 5 NE
1070 H30 (1) S3 F3 U-1 FSS: AKRON
Remarks: P-lines E, SW.

ALVADA
McKEE 3 SW
835 27 (1) S1
Remarks: P-line N.

AMELIA
SKY HILL 2 NE
842 23 (1) F4

AMERICAN TOWER CO See SHELBY

AMES See BEECH CITY

ANCHOR HOCKING See LANCASTER

ANDERSON See CANAL WINCHESTER

ANSONIA
LEIS 1 NW
1005 18 (1) F2 FSS: DAYTON

AREND See MARK CENTER

ASHLAND 2 N
1079 28 (1) F2 FSS: MANSFIELD
Remarks: P-line E, W.

ASHLEY
CLASE 3 NW
960 25 (2) F2 FSS: COLUMBUS
Remarks: Unattended.

RICHARDSON 1 SE
984 18 (2) S3 F2 FSS: COLUMBUS

ASHTABULA-CONNEAUT See CONNEAUT

ASHTABULA-JEFFERSON See JEFFERSON

ATHENS
OHIO UNIVERSITY 1 E
632 H32 (1) BL4 S5 F4 U-1
FSS: PARKERSBURG (DL)
Remarks: 800' sod overrun E, 200' W; ctc PKB to request rnwy lghts.

AVERY AIR SERVICE See BOWLING GREEN

AVON
AVON 3 SE
700 22 (2) S1 F2 FSS: CLEVELAND (LC 251-8100)

BOSWORTH 2 SE
700 27 (2) *L S3 F2 FSS: CLEVELAND (LC 251-8100)

BAINBRIDGE
HAAS 2 W
750 19 (1) S5 FSS: HUNTINGTON
Remarks: Attended days.

SCHMIDT AIRSTRIP 2 NE
705 26 (1) S5 F2 FSS: HUNTINGTON
Remarks: No storage. Unattended.

BARBER See ALLIANCE

BARNESVILLE
BRADFIELD 1 NW
1309 30 (1) B*L4 S5 F4 U-1 FSS: WHEELING

BAUER FIELD See OAKWOOD

BEACH CITY
AMES 1 E
984 18 (1) FSS: AKRON
Remarks: 80 octane fuel only. P-line SW.

BEAVER VALLEY 1 SE
690 38 (1) F2
Remarks: Unattended.

BELLEVUE
MIDWAY 5 NE
650 17 (1) FSS: CLEVELAND
Remarks: P-line W.

BELLVILLE
BENDER 1 W
1050 13 (1)
Remarks: P-line W.

BELLEVUE DAM LANDING STRIP See LONG BOTTOM

BELTZHOOVER See MORROW

BENDER See BELLVUE

BERLIN CENTER
CIRCLE C SKY RANCH 2 NW
1042 18 (1) S5 F2 FSS: YOUNGSTOWN
Remarks: P-lines NE and SW.

BIRMINGHAM
ORTNER 3 SW
850 H38 (2) L4 S5 F4 U-1 FSS: CLEVELAND
Remarks: P-line E.

BLACKBURN
BLACKBURN 2 S
1060 25 (2)

BLACKBURN See EAST LIBERTY

BLATTER FLD See ORRVILLE

BLOOM See JAMESTOWN

BLUE ROCK-STATE FOREST 3 NE
940 12 (1)

AIRPORT DIRECTORY

FFTON-FLYING SERVICE 1 SE
345 27 (4) *L4 S5 F4 U-1 FSS: FINDLAY
Remarks: Rnwy lgts 30 min prior req.

HENFIELD See LODI

DNER See BOWLING GREEN

ORTH See AVON
SFORD See WELLINGTON

LING GREEN
'ERY AIR SERVICE 2 W
530 18 (1) L4 FSS: FINDLAY
Remarks: P-line, road N.

JRDNER 4 SW
590 26 (1) F2 FSS: FINDLAY
Remarks: P-line W.

IAPMAN 1 NW
575 16 (1) FSS: FINDLAY
Remarks: Ditch W end.

:ITZ 2 NW
576 21 (1) FSS: FINDLAY
Remarks: P-line W.

IIVERSITY *IFR* 1 NE
575 H30 (2) L4 F4 U-1 FSS: FINDLAY
VFR ADV: For APP CON DEP CON See TOLEDO TOLEDO-EXPRESS in Section IV-A
Remarks: Rgt tfc tkof, N, W, SW.

DFIELD See BARNESVILLE

MEN
DE-A-WAY HILLS RESORT 4 SW
770 23 (1) F2
Remarks: Unattended.

R HILL See MILLERSBURG

GS FLD See CANTON

DKVILLE
SOR 2 NW
1040 21 (2) F2 FSS: DAYTON
Remarks: P-line N.

NSWICK 2 NW
1002 20 (2) S5 F2 FSS: CLEVELAND
Remarks: Unattended. Apchs rnwy 5, 23, 19 restricted.

AN-DIFIANCE MEML See DIFIANCE

KEYE VALLEY See HEBRON

'RUS
'RT BUCYRUS 2 S
1008 25 (3) *L4 S3 F3 U-1 FSS: MANSFIELD
Remarks: P-line NE, W.

ILER See PAULDING

BURGHILL
WELLS 1 W
1080 15 (1) FSS: YOUNGSTOWN

BURKE LAKEFRONT See CLEVELAND, BURKE LAKEFRONT in Section IV-A

BYER AIRFIELD See WILLSHIRE

CADIZ
HANNA COAL CO 3 S
1174 43 (1) L4 F4 FSS: WHEELING
Remarks: Hill NW.

MOORE FLD 1 NE
1271 21 (1) L4 F4 FSS: WHEELING
Remarks: Rnwy drops sharply at each end, soft and slippery when wet.

TAPPAN ARPK 6 NW
906 21 (1) F2 FSS: WHEELING
Remarks: Clsd Dec-April.

CALDONIA
GIST ELEVATOR LNDG STRIP 3 SE
1005 26 (1) F4

CALDWELL
MYRTLE FLD 3 S
708 18 (1) F2
Remarks: Unattended. Open Apr to Nov.

CANAL WINCHESTER
ANDERSON 3 SE
800 24 (1) F2 FSS: COLUMBUS
Remarks: Unattended.

CANTON
BRIGGS FLD 3 S
1079 22 (2) FSS: AKRON

CANTON CITY 3 NE
1080 27 (2) S5 F4 FSS: AKRON
Remarks: P-line E and W.

CARROLLTON
CARROLLTON 1 SE
1160 14 (1) F4 FSS: AKRON
Remarks: Unattended. P-line NW.

MANFULL 4 N
1280 27 (1) FSS: AKRON
Remarks: P-line E.

CASEMENT See PAINESVILLE

CELINA
LAKEFIELD 4 S
895 23 (2) L4 S5 F2 U-1 FSS: DAYTON
Remarks: Soft when wet. Rnwy lghts dusk - 10 PM.

CHAGRIN FALLS 3 E
1239 H20 (1) S5 F4 U-1 FSS: CLEVELAND
Remarks: P-line N, NE, NW. 2600' strip avbl.

AIRPORT DIRECTORY

CHAPMAN See **BOWLING GREEN**

CHAPIN See **NORWALK**

CHARDON 2 S
1244 26 (3) F2 U-1 FSS: CLEVELAND
Remarks: P-line N, E.

CHERRY FORK 1 NW
939 20 (1) F2
Remarks: Soft when wet. P-line N. Irregularly attended April-Oct.

CHESAPEAKE
HUNTINGTON-DOWNTOWN *IFR* 3 W
560 H28 (1) L4, 8 S5 F4 U-1 FSS: HUNTINGTON
VFR ADV: For APP CON, DEP CON See HUNTINGTON/TRI-STATE, WEST VIRGINIA in Section IV-A
Remarks: Rnwy lgts on prior request after 0100.

CHILLICOTHE
SCIOTA TRAILS 8 SE
640 23 (1) FSS: COLUMBUS

SKY PARK 2 N
639 29 (2) *L F3 FSS: COLUMBUS
Remarks: P-line S.

VAUGHN 3 SE
740 24 (1) L4 S3 F4 FSS: COLUMBUS

CHILO
MELDAHL DAM LNDG STRIP 2 W
520 20 (1)
Remarks: Steel mat.

CINCINNATI
CINCINNATI INC 9 S
857 44 (2) S5 F4 FSS: CINCINNATI (LC 321-1434)
Remarks: P-line N. Rgt tfc rnwys 23, 27.

CINCINNATI MUNI-LUNKEN FLD See Section IV-A

GREATER CINCINNATI See Section IV-A

CIRCLE C SKY RANCH See **BERLIN CENTER**

CIRCLE V FLYING FLD See **TIFFIN**

CIRCLEVILLE
ELSEA 2 N
707 20 (1) S5 F2 FSS: COLUMBUS

THOMAS 2 SW
666 24 (2) F4 FSS: COLUMBUS
Remarks: P-line N, E, W.

CHIPPEWA FLD See **WILLISTON**

CLASE See **ASHLEY**

CLEVELAND
BURKE LAKEFRONT See Section IV-A

CLEVELAND-HOPKINS See Section IV-A

CUYAHOGA CO *IFR* 10 NE
874 H40 (1) BL4, 11 S3 F4, JP4 U-1
FSS: CLEVELAND (LC 251-8[illegible]
VFR ADV: For APP CON DEP CON See CLEVELAND CLEVELAND-HOPKINS in Section IV-A

CLOUD NINE See **GRATIOT**

COLUMBIA See **COLUMBIA STATION**

COLUMBIA STATION
COLUMBIA 2 SW
810 H26 (1) S3 F4 U-1
FSS: CLEVELAND (LC 251-[illegible]
Remarks: Turf soft when wet.

COLUMBUS
COLUMBUS MUNI See Section IV-A

OHIO ST UNIV 7 NW
900 H30 (3) BL4 S5 F4 U-1
FSS: COLUMBUS (LC 237-[illegible]
Remarks: 1500′ overrun each end E/W rnwy.

PRICE FLD 5 SE
762 H22 (3) L4 F4 U-1
FSS: COLUMBUS (LC 237-[illegible]
Remarks: Rnwy 9-27 sod overruns 500′ E, 600′ W.

SOUTH COLUMBUS 5 S
752 30 (1) *L4 S5 F3 U-1
FSS: COLUMBUS (LC 237-[illegible]
Remarks: P-line N.

COLUMBUS SOUTHWEST See **GALLOWAY**

CONCORD ARPK See **PAINESVILLE**

ASHTABULA-CONNEAUT 1 E
715 32 (1) *L4 S3 F4 U-1
Remarks: P-line N.

COONS See **NEVADA**

COX-DAYTON MUNI See **DAYTON, COX-DAYTON MUNI** in Section IV-A

CRAFT See **FREDERICKTOWN**

CREAMER See **JEFFERSON**

CROFT See **SPENCERVILLE**

CROOKSVILLE 3 S
760 23 (1)

CROWN HILL See **MILLERSBURG**

CUYAHOGA CO See **CLEVELAND**

DAYTON
DAHIO 7 W
925 H26 (1) L4 S5 F4 U-1
FSS: DAYTON (LC BA [illegible]
Remarks: P-line S, SW, W.

DAHIO See **DAYTON**

AIRPORT DIRECTORY

ER See PAULDING

ENBURG See HAMLER

TON

X-DAYTON MUNI See Section IV-A

NTGOMERY CO *IFR* 10 S
60 H50 (2) BL4 S5 F4 U-1 FSS: DAYTON (LC BA 3-4571)
FR ADV: For APP CON DEP CON See DAYTON COX-DAYTON MUNI in Section IV-A
emarks: Rnwy lgts avbl by pressing mike button 4 times in rapid succession on UNICOM freq 123.0 mc.

ITH DAYTON 4 SW
20 32 (1) S5 F4 FSS: DAYTON (LC BA 3-4571)

ANCE

FAN-DEFIANCE MEML *IFR* 5 NW
07 H37 (1) BL4 S5 F4 U-1 FSS: FINDLAY

WARE

LAWARE 2 SW
45 H16 (1) *L4 S5 F4 U-1 FSS: COLUMBUS
FR ADV: For APP CON DEP CON See DAYTON COX-DAYTON MUNI in Section IV-A
emarks: P-line S.

LAWARE-RESERVOIR AIRSTRIP 4 N
50 19 (1) FSS: COLUMBUS
emarks: Open summers only.

A-BEE LINE 1 SE
17 26 (1) FSS: FINDLAY
emarks: P-line W.

LER MUNI 1 NE
36 20 (2) L4 F4 FSS: FINDLAY
emarks: Gravel, soft wet. NE apch over pond.

ND See NELSONVILLE

LIBERTY

CKBURN 2 S
115 H26 (1) S1 F3 U-1 FSS: COLUMBUS
emarks: Unattended. P-line N, E.

LIVERPOOL

NEY 4 NW
170 18 (1) S4 F2 FSS: WHEELING
emarks: Attended days. 380' overrun W end.

EIER See MALINTA

RE

AR 2 SE
5 25 (2) *L4 F3 FSS: FINDLAY
emarks: P-lines E, W. Unattended.

OOD See WAUNE

A See CIRCLEVILLE

R FIELD See NORTH LIMA

ELYRIA

ELYRIA 1 S
750 30 (1) F2 FSS: CLEVELAND
Remarks: P-lines E & W.

WALLHEAD LANDING FLD 2 SW
740 20 (1) F2 U-1 FSS: CLEVELAND
Remarks: P-line W. Unattended.

EVANS See JACKSON

EXIT NO. 7 See MILAN

FAR VIEW See HIRAM

FINDLAY

FINDLAY *IFR* 1 SW
812 H60 (2) BL4 S3 F4 FSS: FINDLAY on Fld
Remarks: Displaced threshold 795' rnwy 25.

LUTZ 5 SE
808 19 (1) F2 FSS: FINDLAY
Remarks: P-line N.

PRIEBE 4 NW
795 18 (1) S5 FSS: FINDLAY
Remarks: P-line S. Irregularly attended.

FISHER See WILLIAMSBURG

FOSTORIA

SNYDER 1 NE
760 24 (2) *L4 S3 F2 U-1 FSS: FINDLAY
Remarks: P-line W. Soft when wet.

FREDERICKTOWN

CRAFT 3 NW
1107 18 (1) L4 F2 FSS: MANSFIELD
Remarks: P-line SE. Attended evenings and week-ends.

FREEDOM FLD See MEDINA

FREMONT

JENKINS 2 S
650 26 (3) L4 F2 FSS: FINDLAY
Remarks: P-line N.

PROGRESS FLD *IFR* 2 W
650 H35 (1) L4 S5 F4 FSS: FINDLAY
Remarks: P-line S.

SLAGER ARPK 2 SE
630 29 (1) L4 F3 FSS: FINDLAY
Remarks: Attended dalgt hrs. P-line both ends.

ZIMMERMAN 3 NE
620 34 (1) F2 FSS: FINDLAY
Remarks: P-line W.

GALION

GALION *IFR* 1 NW
1155 23 (2) F2 FSS: MANSFIELD
Remarks: Unattended.

AIRPORT DIRECTORY

GALION MUNI 3 NE
1225 H20 (1) *L4 S5 F4 U-1 FSS: MANSFIELD
VFR ADV: For APP CON DEP CON See MANSFIELD/ MANSFIELD MUNI in Section IV-A

HORNING 1 E
1190 18 (1) F2 FSS: MANSFIELD

GALLOWAY
COLUMBUS SOUTHWEST 1 W
920 28 (1) L4 S5 F4 U-1
FSS: COLUMBUS (LC 237-8478)
Remarks: Lgts operg thru Columbus FSS on twr. P-line E.

GAMBIER
PORT KENYON Adj SE
940 17 (1) FSS: MANSFIELD
Remarks: Rgt tfc NE.

GENEVA
GENEVA-ECHERD 7 SW
970 16 (1) FSS: YOUNGSTOWN
Remarks: P-line apch rnwy 9.

GERMACK 3 SE
830 30 (1) S5 F4 U-1 FSS: YOUNGSTOWN
Remarks: P-line N.

WOERNER 2 NE
640 18 (1) S5 F3 FSS: YOUNGSTOWN
Remarks: P-line E. Fuel emgcy only.

GERMACK See GENEVA

GILBERT See XENIA

GILMER See LEWISBURG

GIST ELEVATOR LANDING STRIP See CALDONIA

GLASER See SWANTON

GORDON See SOUTH CHARLESTON

GRATIOT
CLOUD NINE 1 W
1045 15 (2) FSS: ZANESVILLE
Remarks: Rnwy 9 low area at center soft when wet.

GREATER CINCINNATI See CINCINNATI, GREATER CINCINNATI in Section IV-A

GREEN SPRINGS
WEIKER AIRSTRIP 2 SE
740 16 (1) S5 F2

GREENVILLE
TREATY CITY 1 NE
1077 28 (3) *L S5 F2 U-1 FSS: DAYTON
Remarks: Rnwy 27 displaced 225'.

GRIESER See WAUSEON

GRIFFING-SANDUSKY See SANDUSKY

GRIMES FLD See URBANA

GRINDELL See RICHWOOD

GROVER HILL
TRI COUNTY 4 SE
729 19 (2) F2 U-1 FSS: FIND[illegible]
Remarks: P-line N.

HAAR See ELMORE

HAAS See BAINBRIDGE

HAGEMEYER See OREGONIA

HAGERTY See VANLUE

HAMILTON INC 3 SE
678 H44 (1) BL4 S5 F4 U-1
FSS: CINCINNATI (LC 321-1[illegible])
Remarks: P-line S, NW. Call UNICOM 122.8 mc for lndg info; rnwy lgts on req odd hrs; 300' overrun W end E/W rnwy.

HAMLER
DANNENBURG 3 NW
700 20 (2)
Remarks: P-line E.

HANNA COAL CO See CADIZ

HARRISON 2 E
582 H26 (1) L4 S5 F4 U-1 FSS: CINCINNA[illegible]

HEBRON
BUCKEYE VALLEY 2 W
910 27 (1) *L2 S5 F2 U-1 FSS: COLUM[illegible]
Remarks: P-line S.

HIDE-A-WAY HILLS RESORT See BREMEN

HILLSBORO 5 W
1031 20 (2) S1 FSS: CINCINNA
Remarks: Soft.

HILTNER See NORTH CREEK

HIRAM
FAR VIEW 1 SW
1300 21 (2) *L F2
Remarks: P-lines N & W.

HITZ See LOUISVILLE

HOLLISTER See WILMINGTON

HOOK FLD MUNI See MIDDLETOWN

HORNING See GALION

HOWELL See SOMERTON

HUMPHREY See WAKEMAN

HUNTINGTON-DOWNTOWN See CHESAPEAKE

AIRPORT DIRECTORY

N 3 NW
74 17 (1) S1 FSS: CLEVELAND
emarks: P-line E.

WILD See ST HENRY

SON
.NS 5 SE
:3 34 (1) S1 F2 FSS: HUNTINGTON

ON CENTER
N FLD 2 SW
40 24 (2) S1 F2 FSS: DAYTON

TOWN
OM 2 SW
50 14 (1) F2 FSS: DAYTON
marks: P-line SW.

RSON
TABULA-JEFFERSON *IFR* 1 N
5 H32 (1) *L4 S5 F4 U-1 FSS: YOUNGSTOWN
marks: P-line E.

AMER 3 S
40 25 (1) FSS: YOUNGSTOWN

NS See FREMONT

TON See WELLSVILLE

See LARUE

YS ISLAND LANDING FLD 1 NE
5 H20 (1) L4 FSS: CLEVELAND
marks: P-line N; sod areas soft-wet; taxing off hard surface; loose stone paved area. Unattended.

N 2 SW
7 19 (1) F4 FSS: FINDLAY
marks: RR E end. Unattended. P-line E.

STATE 2 W
20 33 (3) S5 F4 U-1

See MINFORD

RESORT See LAKE MILTON

See SALEM

LD See JACKSON CENTER

LAKE AIRSTRIP See ST PARIS

NGE
OW-AIRE 1 S
3 27 (1) S3 F2 FSS: CLEVELAND
marks: P-line W.

IELD See CELINA

LAKE MILTON
KOASIS RESORT 1 N
985 35 (1)
Remarks: P-line E.

LAKEVIEW
VAN HORN FARM 2 NW
1003 29 (2)
Remarks: Soft when wet.

LANCASTER
ANCHOR HOCKING 3 NW
850 H35 (1) BL4 S5 F4 U-1 FSS: COLUMBUS

LANSDOWNE See YOUNGSTOWN

La RUE
JONES 3 NW
944 22 (1) FSS: FINDLAY
Remarks: Unattended. P-line E.

LAYMAN See LUCKEY

LEBANON
LEBANON (J & J) 3 NW
880 26 (2) S5 F2 FSS: DAYTON
Remarks: Rgt tfc N. P-line E.

LEBANON-WARREN CO 2 S
875 H21 (1) L4 S5 F4 FSS: DAYTON
Remarks: P-line W.

LEE See MARYSVILLE

LEHMANN See RISING SUN

LEIS See ANSONIA

LENOX 3 S
940 26 (1) L4 S3 F4 FSS: YOUNGSTOWN
Remarks: P-line E. 800′ overrun E end. Unattended.

Le ROY
WESTFIELD 1 SE
1044 25 (1) S5 FSS: AKRON
Remarks: Soft when wet.

LEWISBURG
GILMER 2 SE
1045 16 (1) FSS: DAYTON
Remarks: P-line N.

LEWIS CENTER 2 NE
945 15 (2) S3 FSS: COLUMBUS
Remarks: P-lines SE, SW. No storage. Unattended.

LIMA
ALLEN CO *IFR* 4 SE
976 H51 (1) BL4 F4 FSS: FINDLAY

LIMA 4 NW
827 H35 (1) BL4 S3 F4 U-1 FSS: FINDLAY
Remarks: P-line N, S. Strip soft-wet. For rnwy lgts press mike button 4 times within 5 seconds on UNICOM freq; lgts will remain on for 15 min.

AIRPORT DIRECTORY

LODI
BOB HENFIELD 3 NE
1140 24 (2) FSS: AKRON

LODI 2 NE
1150 23 (1) FSS: AKRON

LOGAN
OWENS 4 NE
988 30 (2) FSS: ZANESVILLE

LONDON
ROBERTS 2 SW
1050 20 (1) FSS: COLUMBUS

LONG See LOUDONVILLE

LONG BOTTOM
BELLEVUE DAM LNDG STRIP 2 E
588 16 (1)
Remarks: Steel mat.

LORAIN 2 SW
614 30 (2) S3 F2 FSS: CLEVELAND
Remarks: P-line E, S.

LOST NATION See WILLOUGHBY, LOST NATION in Section IV-A

LOUDONVILLE
LONG 2 NW
971 16 (1)

LOUISVILLE
HITZ 3 NW
1080 17 (1) F2 FSS: AKRON
Remarks: Attended weekends dalght hrs. S 500′ rnwy 1-19 drops sharply.

YODER 1 NE
1149 29 (1) F2 FSS: AKRON
Remarks: P-line E.

LOVELL See UPPER SANDUSKY

LUCKEY
LAYMAN 1 SW
661 26 (1)
Remarks: P-line N.

LUTZ See FINLAY

LYON See WARREN

MADISON
WOODWORTH 1 N
690 15 (1) F2 FSS: CLEVELAND
Remarks: Trees both apchs.

MAD RIVER See TREMONT CITY

MAGNOLIA Adj NW
964 H33 (1) S5 F2 FSS: AKRON
Remarks: P-line WNW. Soft when wet; do not land NE/SW when drag racing in progress Sun only.

MALINTA
EICKMEIER 4 SE
690 16 (1)

MANFULL See CARROLLTON

MANSFIELD
MANSFIELD See Section IV-A

PLEASANT HILL LANDING STRIP 2 SW
1032 21 (1) FSS: MANSFIELD

MANTUA
MILLS 2 SW
1109 27 (1) S1 F2 FSS: AKRON
Remarks: P-line N. Irregularly attended.

MARGO'S SKY RANCH See SEVILLE

MARION MUNI 3 NE
991 H43 (2) BL4 S5 F4 U-1 FSS: MANSFIELD
VFR ADV: For APP CON DEP CON See MANSFIELD MUNI in Section IV-A

MARK CENTER
AREND 2 SW
720 18 (1) FSS: FINDLAY
Remarks: P-line S.

MARYSVILLE
LEE 3 NE
990 24 (1) F2 FSS: COLUMBUS
Remarks: 300′ overrun each end.

MAYFIELD AIRSTRIP See AKRON

McCABE See PAULDING

McCOMB 1 S
780 16 (1) FSS: FINDLAY

McKEE See ALVADA

MEADOW-AIRE See LAGRANGE

MEDINA
FREEDOM FLD 4 S
1190 H25 (1) L4 S5 F4 FSS: AKRON
Remarks: P-line N.

MELDAHL DAM LANDING STRIP See CHILO

MIAMI UNIVERSITY See OXFORD

MIDDLETOWN
HOOK FLD MUNI *IFR* 2 N
647 H51 (1) BL4, 11 S3 F4, JP4 U-1 FSS: DAYTON
VFR ADV: For APP CON DEP CON See CINCINNATI GREATER CINCINNATI in Section IV-A
Remarks: Rgt tfc W, S, & SW. 895 and 827′ MSL smokestacks SW corner of fld.

MIDWAY See BELLEVUE

AIRPORT DIRECTORY

AM
XIT NO. 7 1 N
660 23 (1) FSS: CLEVELAND
Remarks: P-line W.

LER See **ALLIANCE**

LERSBURG
RIAR HILL 1 S
810 20 (1) FSS: MANSFIELD
Remarks: Rgt tfc S. P-line N.

OWN HILL 2 SW
1206 22 (1) FSS: MANSFIELD
Remarks: Soft when wet.

S See **MANTUA**

ERVA 3 NW
1080 25 (1) S5 F2 U-1 FSS: AKRON
Remarks: P-line N, S.

FORD
MORE 2 SE
974 24 (2) S5 F2 FSS: HUNTINGTON
Remarks: P-line N, NW.

ICAN STATE FOREST See **PERRYSVILLE**

TGOMERY CO See **DAYTON**

TPELIER
ODRUFF 1 E
905 22 (3) F2 U-1 FSS: FINDLAY
Remarks: P-line W, N. Unattended. Fuel by prior request.

RE FLD See **CADIZ**

RISON FLD See **NEWTON FALLS**

ROW
LTZ HOOVER 1 SW
1280 21 (1) FSS: CINCINNATI

RROW 2 SW
1340 25 (1) F2 FSS: CINCINNATI

ERNON
NKOOP 1 SW
1041 34 (2) S3 F4 FSS: ZANESVILLE

IS See **PHILLIPSBURG**

ILE FLD See **CALDWELL**

OLEON
ITER 1 NW
1082 25 (1) B F2 FSS: FINDLAY

ONAL See **TOLEDO**

Z See **BOWLING GREEN**

NELSONVILLE
DIAMOND 3 W
690 22 (1) L4 S5 F2
Remarks: Attended weekends and evenings.

NEVADA
COONS 1 NE
940 18 (1) FSS: MANSFIELD
Remarks: TV ant N.

NEWARK MUNI 3 SW
880 25 (1) BL4 S3 F4 U-1 FSS: COLUMBUS
Remarks: P-line S.

NEW CARLISLE 1 SE
900 H20 (1) L4 FSS: DAYTON

NEW KNOXVILLE-INC Adj E
915 26 (1) L4 F3 FSS: DAYTON
Remarks: Unattended.

NEW LEXINGTON 2 S
1063 18 (2) S3 F2 U-1 FSS: ZANESVILLE

NEW LONDON 2 S
1080 30 (2) L4 S3 F2
Remarks: P-line N, SW. Bcn on request. Rnwy lgts oper 3 hrs after SS.

NEW PHILADELPHIA
NEW PHILADELPHIA 2 SE
895 H39 (1) BL4 S5 F4 FSS: AKRON
Remarks: P-lines E, N.

SUN VALLEY 2 NE
943 21 (1) F2 FSS: AKRON
Remarks: P-line N. Unattended.

NEWTON FALLS
MORRISON FLD 2 SW
910 21 (1)
Remarks: Irreg attendance. P-line S.

NORTH CREEK
HILTNER Adj NW
725 13 (1) FSS: FINDLAY

NORTHFIELD
WELCOME 2 SE
1040 25 (4) F2 FSS: CLEVELAND
Remarks: P-line W, SE.

NORTH JACKSON
YOUNGSTOWN EXECUTIVE 3 SE
997 H42 (1) L4 F4 FSS: YOUNGSTOWN

NORTH LAWRENCE
SHADY GROVE 2 SE
1060 16 (1) F2

NORTH LIMA
ELSER FLD 1 NW
1060 42 (1) L4 S5 F4 FSS: YOUNGSTOWN
Remarks: 3000' rnwy 9 lgtd. P-line E.

AIRPORT DIRECTORY

NORTH RANDALL
THISTLEDOWN Adj NW
1012 21 (1) FSS: CLEVELAND (LC 251-8100)
Remarks: For single engine aircraft not over 3000 lbs only. Lctd inside race track. No lndgs or tkof during races.

NORWALK
CHAPIN 3 SE
865 H26 (1) BL4 F4 FSS: CLEVELAND
Remarks: Unattended. Overruns each end. P-line apch rnwy 27.

OAK HILL
SWANN FLD 1 NE
800 17 (2) S3 F2 FSS: HUNTINGTON

OAKWOOD
BAUER FLD 3 N
720 17 (1) L4 FSS: FINDLAY

OBERLIN 3 W
845 21 (2) S3 F2 FSS: CLEVELAND
Remarks: P-line N.

OHIO UNIVERSITY See ATHENS

OLDMAN See SHREVE

OREGONIA
HAGEMEYER 3 E
940 22 (1) *L4 S4 FSS: DAYTON
Remarks: 70′ twrs 1150′ W.

ORRVILLE
BLATTER FLD 1 NW
1100 H26 (1) L4 F4 U-1 FSS: AKRON
Remarks: P-line NE. Attended week-end and evenings.

ORTNER See BIRMINGHAM

OSBORN AIRSTRIP See WILLSHIRE

OWENS See LOGAN

OXFORD
MIAMI UNIVERSITY 2 W
1040 H30 (1) L4 S3 F4 U-1 FSS: DAYTON
Remarks: P-lines N, S, W. For rnwy lgts press mike button 4 times on 122.8 mc.

PAINESVILLE
CASEMENT 1 NE
685 H32 (1) BL4 S3 F3 U-1 FSS: CLEVELAND
Remarks: P-line E.

CONCORD ARPK 4 SE
1015 H24 (1) L4 S5 F4 U-1 FSS: CLEVELAND
Remarks: P-line S.

PAINESVILLE (THOMPSON) COUNTY LINE 7 SE
1160 22 (1) F2 FSS: CLEVELAND
Remarks. P-line N.

PANDORA 1 W
780 17 (1) S5 F2 FSS: FINDLAY
Remarks: P-line S.

PATASKALA
ZEUNA 2 SE
985 24 (1) F2 FSS: COLUMBUS
Remarks: P-line N. Soft-wet.

PAULDING
BUEHLER 2 SW
728 16 (1) FSS: FINDLAY
Remarks: P-line N.

DANGLER 4 N
720 16 (1) S1 FSS: FINDLAY
Remarks: Unattended.

McCABE 4 NW
721 24 (1) F2 FSS: FINDLAY
Remarks: P-line NE.

PAULDING COUNTY 2 NE
720 25 (2) FSS: FINDLAY
Remarks: P-line S.

STRABELE 4 SW
740 19 (1) S1 FSS: FINDLAY
Remarks: Unattended.

PERRYSVILLE
MOHICAN STATE FOREST 3 S
1350 15 (1) FSS: MANSFIELD

PETERSBURG
PETERSBURG 1 SW
1140 26 (1) L4 F2 U-1 FSS: YOUNGSTOWN

RICHEY 2 SW
1195 19 (1) FSS: YOUNGSTOWN
Remarks: Apchs blkd by fences.

PHILLIPSBURG
MYERS Adj N
1031 18 (1) S3 F2 FSS: DAYTON
Remarks: Attended week-end dalgt hrs. P-line S.

PIQUA *IFR* 4 NW
1001 H28 (1) BL4 S5 F4 FSS: DAYTON
VFR ADV: For APP CON DEP CON See DAYTON CO-DAYTON MUNI in Section IV-A

PLAIN CITY SW
949 21 (1) S1
Remarks: P-line W.

PLEASANT HILL LANDING STRIP See MANSFIELD

PORT BUCYRUS See BUCYRUS

PORT CLINTON MUNI 3 SE
587 H37 (2) BL2 S5 F4 U-1 FSS: CLEVELAND
Remarks: P-line N. Sod ruf-soft-wet. Low flt over schl SW corner of apt.

AIRPORT DIRECTORY

RTEUS LANDING FLD See WEST LAFAYETTE

RT KENYON See GAMBIER

RTSMOUTH
CIOTO CO 10 NE
664 H42 (1) BL4 S5 F4 U-1 FSS: HUNTINGTON (DL)

RT XENIA See XENIA

CE FIELD See COLUMBUS

EBE See FINDLAY

)GRESS FLD See FREMONT

IN BAY 1 SW AOE
605 24 (3) F2 U-1 SS: CLEVELAND
Remarks: Fee.

ATTLESNAKE ISLAND 2 NW
800 18 (2) F3 FSS: CLEVELAND

OR See BROOKVILLE

TLESNAKE ISLAND See PUT-IN-BAY

NOLDSBURG
OOK FLD 1 NE
1010 31 (2) S5 F2 FSS: COLUMBUS (LC 237-8478)
Remarks: P-line E.

HARDSON See ASHLEY

EY See PETERSBURG

WOOD
RINDELL 3 SW
985 18 (1) S1 F2 FSS: COLUMBUS
Remarks: P-line S. Unattended.

NG SUN
EHMANN 2 E
710 25 (1) F2 FSS: FINDLAY
Remarks: Irregularly attended. P-line N.

ERSIDE See ZANESVILLE

ERTS See LONDON

INA ARPK 2 E
1026 21 (3) S5 F4 FSS: DAYTON
Remarks: P-line E, N.

LAIRSVILLE
DERMAN FLD *IFR* 3 SW
1195 H30 (1) BL4 S3 F4 U-1
FSS: WHEELING (LC CR 7-1252)
Remarks: Lghts after 2200 prior reqs fone.

ENRY
LE-WILD 3 SW
950 14 (1) S1 F2
Remarks: Unattended.

ST PARIS
KYSER LAKE AIRSTRIP 4 N
1159 19 (1)
Remarks: Attended April thru Oct.

SALEM
KOONS 2 SW
1300 18 (1) S3 F4 FSS: YOUNGSTOWN
Remarks: P-line E.

SALEM ARPK INC 3 N
1160 26 (1) L4 S5 F4 U-1 FSS: YOUNGSTOWN
Remarks: P-line E.

GRIFFING-SANDUSKY *IFR* 2 E
574 H36 (2) L4 S5 F4 U-1 FSS: CLEVELAND
Remarks: P-line S.

SCHMIDT AIRSTRIP See BAINBRIDGE

SCHREDER See TOLEDO

SCIOTO CO See PORTSMOUTH

SCIOTA TRAILS See CHILLICOTHE

SEVILLE
MARGO'S SKY RANCH 3 NE
1045 13 (1) L4 FSS: AKRON
Remarks: P-line NE; rdo twr 2000' N.

SHADY GROVE See NORTH LAWRENCE

SHELBY
AMERICAN TOWER CO 2 W
1120 22 (2) S1 F4 U-1 FSS: MANSFIELD
Remarks: P-line N, NE.

SHREVE
OLDMAN 3 SW
1227 15 (1) S1 FSS: MANSFIELD

SIDNEY *IFR* 2 S
1020 H33 (2) L4 S5 F4 U-1 FSS: DAYTON
VFR ADV: For APP CON DEP CON See DAYTON/COX-DAYTON MUNI in Section IV-A

SKY HILL See AMELIA

SKY PARK See CHILLICOTHE

SLAGER ARPK See FREMONT

SMITH See TONTOGANY

SNOOK FLD See REYNOLDSBURG

SNYDER See FOSTORIA

SOMERTON
HOWELL 3 NW
1280 20 (1) BL4 S3 F2, 4 FSS: WHEELING
Remarks: P-line NE. Rnwy lgts on prior request after 2300.

AIRPORT DIRECTORY

SOUTH CHARLESTON
GORDON 3 E
1145 21 (1) F2
Remarks: Attended days.

SOUTH COLUMBUS See COLUMBUS

SOUTHERN AIRWAYS, INC See YOUNGSTOWN

SOUTH DAYTON See DAYTON

SPENCERVILLE
CROFT 4 SW
850 21 (2) FSS: FINDLAY
Remarks: P-line N. Attended week-end only.

SPILLERS See VERSAILLES

SPRINGFIELD MUNI See Section IV-A

STATE FOREST See BLUE ROCK

STATE FOREST See ZALESKI

STEUBENVILLE-PIER 4 W
1200 H32 (1) L4 S3 F3 FSS: WHEELING
Remarks: P-line NW. Rnwy lgts on request after 2200.

STRABELE See PAULDING

STRONGSVILLE ARPK 1 W
840 H30 (2) L4 S5 F4 U-1
FSS: CLEVELAND (LC 251-8100)
Remarks: P-line E, S.

STUDEBAKER FARMS See UNION

SUGAR CREEK Adj NE
981 18 (1) F2 FSS: AKRON
Remarks: P-line N. Unattended.

SUN VALLEY See NEW PHILADELPHIA

SWANEY See EAST LIVERPOOL

SWANN FIELD See OAK HILL

SWANTON
GLASER 1 SE
680 23 (1) F2

TAPPAN ARPK See CADIZ

THISTLEDOWN See NORTH RANDALL

THOMAS See CIRCLEVILLE

THOMPSON
VOGT 2 SE
1210 13 (1) F2
Remarks: Unattended. P-line NE.

TIFFIN
CIRCLE V FLYING FLD 4 SW
795 26 (1) *L1 F2 FSS: FINDLAY
Remarks: P-line N.

TIFFIN 2 N
754 26 (1) *L4, 10 F4 FSS: FINDLAY
Remarks: E blkd. Req rnwy lgts prior darkness, fons. Use FEE.

TOLEDO
NATIONAL 4 NE
595 H29 (1) L4 S5 F4 U-1
FSS: FINDLAY (LC 242-4[illegible]
Remarks: P-lines S, NE, SW, E, W.

SCHREDER 4 NW
665 26 (1) FSS: FINDLAY (LC 242-4[illegible]
Remarks. P-line N, S.

TOLEDO-EXPRESS See Section IV-A

TOLEDO MUNI *IFR* 7 SE
622 H42 (3) S5 FSS: FINDLAY (LC 242-4[illegible]
VFR ADV: For APP CON DEP CON See TOLEDO TOLEDO EXPRESS in Section IV-A
Remarks: P-line SW, W..

TONTOGANY
SMITH Adj SE
650 18 (1) F2 FSS: FINDLAY

TORONTO 1 NW
1080 22 (1) *L4 F2 FSS: WHEELING
Remarks: Attended dalgt hrs wk ends. Steeply slopes downward both ends.

TREATY CITY See GREENVILLE

TREMONT CITY
MAD RIVER Adj NE
955 34 (1)
Remarks: P-lines W.

TRI-CITY ARPK See WEST LAFAYETTE

TRI-COUNTY See GROVER HILL

TROY
WACO 1 SW
870 31 (3) FSS: DAYTON
Remarks: P-lines E, W, SE.

UNION
STUDEBAKER FARMS 1 N
930 18 (1) FSS: DAYTON (LC B4 3[illegible]

UNION CITY
ZUMBRUN 3 NE
1050 16 (1) FSS: DAYTON
Remarks: P-line W.

UNIVERSITY See BOWLING GREEN

AIRPORT DIRECTORY

PER SANDUSKY
.OVELL 4 NW
816 24 (2) S3 F2 FSS: FINDLAY
Remarks: P-line S.

PPER SANDUSKY 2 N
845 22 (2) S5 F4 U-1 FSS: FINDLAY
Remarks: P-line N, W.

3ANA
RIMES FLD 1 N
1060 H33 (1) BL4 S5 F4 U-1
FSS: DAYTON (LC BA 3-4571)

HORN FARM See LAKEVIEW

LUE
AGERTY 3 W
806 9 (1) F2

WERT MUNI 1 SW
788 H32 (1) L4 F4 FSS: FINDLAY
Remarks: P-line S.

JGHN See CHILLICOTHE

SAILLES
PILLERS Adj NE
1000 29 (2) S3 FSS: DAYTON
Remarks: Unattended.

T See THOMPSON

O See TROY

SWORTH MUNI 2 SW
985 H33 (1) L4 S5 F4 U-1 FSS: AKRON

EMAN
UMPHREY 3 SW
550 40 (1)
Remarks: P-line W.

LHEAD LANDING FLD See ELYRIA

AKONETA 2 NE
905 28 (2) S5 F3 U-1 FSS: FINDLAY
Remarks: P-lines SW.

REN
TON 3 N
935 23 (1) F2 FSS: YOUNGSTOWN
Remarks: P-line W. Clsd to transient acft Nov thru Apr. Unattended.

ARREN 5 NW
910 25 (2) L4 S5 F4 U-1 FSS: YOUNGSTOWN
Remarks: P-line N, NE.

NE
M WOOD 4 SW
710 18 FSS: FINDLAY
Remarks: P-line E, S.

WAUSEON
GRIESER 2 E
750 20 (1) S5 F3 FSS: FINDLAY

WAYNESBURG
ALBRIGHT AND SCHNEIDER 2 SE
1220 18
Remarks: P-line; trees N, SE.

WAYNESVILLE 2 SW
925 27 (2) S3 F2 FSS: DAYTON
Remarks: P-line E.

WEIKER AIRSTRIP See GREEN SPRINGS

WELCOME See NORTHFIELD

WELLINGTON
BOTSFORD Adj SE
864 24 (3) S3 F2
Remarks: P-line S.

WELLS See BURGHILL

WELLSVILLE
JOHNSTON 1 N
1200 15 (1) S1 FSS: WHEELING

WESTFIELD See LEROY

WEST LAFAYETTE
PORTEUS LANDING FLD 2 SE
850 32 (1) S1 F4 U-1 FSS: ZANESVILLE
Remarks: P-line W.

TRI CITY ARPK Adj S
825 21 (1) F2 FSS: ZANESVILLE
Remarks: Unattended.

WILLARD 1 S
967 21 (1) S3 F2 FSS: MANSFIELD
Remarks: P-lines W.

WILLIAMSBURG
FISHER 2 NW
910 21 (1) L4 F2 FSS: CINCINNATI
Remarks: P-line SW.

WILLISTON
CHIPPEWA FLD 1 SE
596 26 (1)
Remarks: P-line apch rnwy 27.

WILLOUGHBY LOST NATION See Section IV-A

WILLSHIRE
BYER AIRFIELD 1 N
800 17 (2) S1 FSS: FINDLAY
Remarks: P-line NE. Unattended.

OSBORN AIRSTRIP 1 SE
819 22 (1) FSS: FINDLAY

AIRPORT DIRECTORY

WILMINGTON
HOLLISTER 6 E
1080 31 (1) FSS: DAYTON
Remarks: P-line N, E.

WINTER See NAPOLEON

WOERNER See GENEVA

WOODRUFF See MONTPELIER

WOODSFIELD 1 W
1211 19 (1) F2 FSS: PARKERSBURG
Remarks: Soft when wet.

WOODWORTH See MADISON

WOOSTER MUNI 3 NE
1161 H31 (1) L4 S5 F2 U-1 FSS: MANSFIELD
Remarks: P-lines N, S, SE; rnwy lgts on req after 2300.

WYNKOOP See MT VERNON

XENIA
GILBERT 4 NW
930 18 (1) S5 FSS: DAYTON
Remarks: P-lines E & W. Unattended.

PORT XENIA 3 E
1050 18 (1) *L4 S4 F2 FSS: DAYTON

YODER See LOUISVILLE

YOUNGSTOWN
LANSDOWNE 3 NE
1057 H28 (1) *L4 S5 F4 U-1
FSS: YOUNGSTOWN (LC LI 5-8041)
Remarks: P-line NE.

EXECUTIVE See NORTH JACKSON

SOUTHERN AIRWAYS, INC 4 SW
1072 26 (2) *L4 S5 F4 U-1 FSS: YOUNGSTOWN
Remarks: No tkof E. W end E-W strip ruf. P-line E.

YOUNGSTOWN MUNI See Section IV-A

ZALESKI STATE FOREST 1 SW
705 21 (1) FSS: HUNTINGTON
Remarks: Hills all sides.

ZANESVILLE
RIVERSIDE 2 NE
700 35 (1) *L S5 F2
FSS: ZANESVILLE (LC GL 2-8611)
Remarks: Irregular attended. Flares on request thru FSS.

ZANESVILLE MUNI *IFR* 6 E
900 H50 (2) BL4 S5 F4 U-1 FSS: ZANESVILLE

ZEUNA See PATASKALA

ZIMMERMAN See FREMONT

ZUMBRUN See UNION CITY

OKLAHOMA

ADA
ADA MUNI 2 N
1008 H50 (3) BL4 S5 F4 U-1 FSS: ARDMORE

BIFFLE RANCH 14 N
775 15 (1) FSS: ARDMORE
Remarks: Strip low in middle. Unattended.

HEATONS 5 SE
820 23 (1) F2 FSS: ARDMORE
Remarks: P-line N, S.

AIRMAN ACRES See COLLINSVILLE

AFTON
MONKEY ISLAND 7 SE
750 26 (1) S1 F2

ALTUS MUNI 3 N
1426 H26 (1) L4 F4 U-1 FSS: HOBART
Remarks: P-line SE. Ant SW.

ALVA
ALVA MUNI 2 S
1470 H34 (1) BL4 S5 F4 FSS: GAGE

MAY 20 NW
1800 20 (2) F1 FSS. GAGE
Remarks: P-line S. Unattended.

ANADARKO MUNI 2 SW
1286 38 (2) S5 F2 FSS: OKLAHOMA CITY
Remarks: P-line E.

ARCHER See SAYRE

ARDMORE
ARDMORE MUNI *IFR* 10 NE
762 H72 (4) B*L4, 6 S5 F4, JP1
FSS: ARDMORE
Remarks: Rnwy prior request thru FSS. Rnwy 17-35 clsd. Acft over wheel load 25,000 lbs.

LAKE MURRAY ST ARPK Adj SE
840 20 (1) F2 FSS: ARDMORE (LC CA 3-6772)
Remarks: TV ant SW.

ARNETT MUNI Adj N
2450 23 (2) FSS: GAGE
Remarks: Pole SW. Unattended. Ruf and rolling.

BARTLESVILLE
HI-WAY 3 NE
680 28 (1) S5 F4 U-1 FSS: TULSA
Remarks: P-line N, S. Soft when wet.

PHILLIPS *IFR* 1 NW
713 H62 (1) BL4 S5 F4, JP1 FSS: TULSA

AIRPORT DIRECTORY

AVER MUNI 1 SW
2500 33 (2) L4 FSS: GAGE
Remarks: Soft when wet.

FLE RANCH See ADA

ACKWELL
LACKWELL 2 W
1059 24 (1) S1 F2 FSS: PONCA CITY
Remarks: P-line N, S.

AUK'S ARPK 2 S
1005 25 (2) S5 F4 FSS: PONCA CITY
Remarks: P-line E, W.

SE CITY 3 N
4200 34 (2) *L4 S1 F4 U-1 FSS: DALHART
Remarks: Unattended. Rnwy 16 blkd.

STOW MUNI 1 NW
878 H18 (1) S1 FSS: TULSA
Remarks: Unattended.

)KEN ARROW
UNK 2 N
685 25 (1)
Remarks: P-line S.

FALO 1 W
1820 22 (3) S1 F2 FSS: GAGE
Remarks: P-lines N, S, E. Unattended. All strips blkd.

NEYVILLE
URNERS LODGE 1 NW
830 41 (3) L4 F4 U-1 FSS: ARDMORE
Remarks: P-lines S, E, W.

HE
JSCHER FLD 2 E
1220 20 (3) S3 F2 FSS: WICHITA FALLS
Remarks: N/S strip blkd.

EY CREEK See KINGSTON

TON ARPK 2 NW
1660 H24 (1) FSS: GAGE

NDLER MUNI 3 NE
1025 22 (2) S1 FSS: OKLAHOMA CITY
Remarks: P-lines N, W.

NDLER FLD See PURCELL

TTANOOGA
Y HARBOR 3 SW
1135 H45 (3) FSS: WICHITA FALLS

COTAH
)CH 1 NE
610 21 (1) *L4 F1 U-1 FSS: McALESTER
Remarks: Unattended.

CHEROKEE
JIMMIE RAE 1 E
1200 23 (1) FSS: PONCA CITY
Remarks: TV ant P-lines S.

CHEYENNE 1 W
2030 20 (3) S1 F2 FSS: GAGE
Remarks: Unattended.

CHICKASHA MUNI 3 NW
1146 H38 (1) BL4 S5 F4 U-1
FSS: OKLAHOMA CITY (LC CA 4-6440)

CHRISTS 40 ACRES See HONOBIA

CIMARRON FLD See YUKON

CLAREMORE
WILL ROGERS MUNI 1 NE
668 23 (2) BL4 S5 F4 U-1 FSS: TULSA
Remarks: P-line N, W.

CLAYTON
TERRYLAIN FARM 4 NE
625 31 (1) FSS: McALESTER
Remarks: P-lines both ends of rnwy. Unattended.

CLEVELAND
KEYSTONE AIR PARK 9 SE
889 H30 (1)

CLINTON MUNI 3 NE
1615 H32 (1) BL4 S3 F4 U-1 FSS: HOBART

COCKERELL See WILSON

CODDING-ARMOUR RESEARCH See FORAKER

COLLINSVILLE
AIRMAN ACRES 3 SW
700 26 (1) FSS: TULSA
Remarks: P-line S. Unattended.

CORDELL MUNI 1 E
1580 22 (3) S5 F4 U-1 FSS: HOBART

CUSHING MUNI 2 S
913 H52 (1) BL4 S5 F4 U-1 FSS: TULSA

DAVIS
JOLLY AERO-AUTO CT 3 S
800 17 (1) FSS: ARDMORE
Remarks: P-line N.

DEWEY
WAYSIDE 3 NE
820 18 (1) F2
Remarks: Apchs blkd.

DAVIS FLD See MUSKOGEE, DAVIS FLD in Section IV-A

DOWNTOWN ARPK See OKLAHOMA CITY

AIRPORT DIRECTORY

DUNCAN
HALLIBURTON FLD *IFR* 2 S
1125 H50 (1) BL4 S5 F4 U-1 FSS: ARDMORE
Remarks: P-line NE, NW.

DURANT
EAKER FLD 3 SW
703 H50 (3) *L4 F4 FSS: ARDMORE
Remarks: Bcn operg on request only.

EAKER FLD See **DURANT**

EAKLY
KING 3 E
1535 24 (1)
Remarks: Unattended.

EDMOND
WYNN 3 S
1177 26 (1) F2
Remarks: P-line N, S.

ELK CITY MUNI 1 E
1981 H34 (1) L4 S5 F4 FSS: HOBART

EL RENO
MUSTANG FLD 5 SW
1408 H20 (1) S1 F4 FSS: OKLAHOMA CITY
Remarks: Caution, dips near int of strips. 5000′ turf strip avbl emgcy only.

ENID
NORTH 3 N
1282 21 (1) S1 F2 FSS: PONCA CITY (LC AD 7-6737)
Remarks: Fence N, S. Unattended.

WOODRING FLD *IFR* 4 SE
1172 H65 (3) BL4 S5 F4 U-1 VFR ADV: VANCE APP CON 121.3 DEP CON 121.3
FSS: PONCA CITY (LC AD 7-6737)
Remarks: Threshold rnwy 17 displaced 900′ S. Use 6500′ days; 5600′ nights both dir.

ENTERPRISE
WARES FARM 4 NE
625 20 (2)

ERICK
HADDOCK 1 SW
2017 25 (4) S1 F3 FSS: HOBART
Remarks: P-line N. Unattended. Soft when wet.

EXPRESSWAY JUNCTION See **OKLAHOMA CITY**

FAIRFAX
SEVEN BAR RCH 2 NW
920 23 (1) FSS: PONCA CITY
Remarks: Unattended.

FAIRVIEW 1 N
1300 22 (2) BL2 S5 F4 U-1 FSS: GAGE
Remarks: P-line W.

FORAKER
CODDING-ARMOUR RESEARCH 6 S
1274 H32 (1) FSS: PONCA C

FOUR STAR RANCH See **TUSKAHOMA**

FUNK See **BROKEN ARROW**

FREDERICK MUNI 2 SE
1233 H60 (4) L4 S5 F4 U-1 FSS: HOBA
Remarks: Irregularly attended. N-S rnwy lgtd 3000′ N end.

GAGE MUNI (FAA) *IFR* 2 SW
2223 H54 (2) BL4 S1 F4 FSS: GAGE or
Remarks: N/S rnwy restricted to acft under 35,000 lbs GT

GOLDSBY FLD See **NORMAN**

GOULD
PUTNAM 1 NE
1650 18 (3) FSS: CHILDRE
Remarks: P-lines WSW.

GRANDFIELD MUNI 3 W
1128 H30 (1) S1 FSS: WICHITA FA
Remarks: Unattended.

GROVE MUNI 1 NE
820 30 (1) S1
Remarks: Unattended.

GUTHRIE MUNI 2 S
1074 28 (1) *L4 S3 F2 FSS: OKLAHOMA CI

GUYMON MUNI 2 W
3123 H43 (1) BL4 S5 F4
FSS: DALHART (LC

HADDOCK See **ERICK**

HALLIBURTON FLD See **DUNCAN**

HATBOX FLD See **MUSKOGEE**

HARVEY YOUNG See **TULSA**

HEALDTON
SUTHERLAND WELL SERV INC 2 NE
480 26 (1) F2 FSS: ARD
Remarks: 5′ fence at strip ends.

HEATONS See **ADA**

HEAVENER MUNI 2 N
575 25 (2) FSS: FORT SM
Remarks: Soft-wet. Unattended.

HENNESSEY
SIEGMANNS 9 SE
1060 17 (1) F1
Remarks: P-line N.

HI-WAY See **BARTLESVILLE**

AIRPORT DIRECTORY

BART
OBART MUNI *IFR* 3 SE
1564 H53 (3) BL4 S5 F4 FSS: HOBART on Fld
Remarks: Clsd acft over 15,900 lbs per wheel load. 4600' N S rnwy lgtd.

UNTERS FLIGHT STRIP 1 SW
1530 22 (2) S1 F2 FSS: HOBART (LC GE 6-4234)
Remarks: P-line N. Soft when wet.

IMAN See LONE WOLF

.DENVILLE MUNI 1 NW
964 H32 (2) B*L4 S1 F4 FSS: McALESTER

LIS
DLLIS Adj N
1660 23 (1) S1 F1 FSS: CHILDRESS
Remarks: Open March thru Nov.

CHAEL 3 SE
1593 26 (1) S3 F2 FSS: CHILDRESS
Remarks: P-line N and S.

IA See MADILL

INY MUNI 1 N
825 30 (1) FSS: TULSA
Remarks: Unattended.

OBIA
IRISTS 40 ACRES 15 SE
1200 20 (1) FSS: McALESTER
Remarks: Unattended. Both ends strip blkd.

NE See WEBBERS FALLS

SON RCH See RALSTON

O
ISH 1 NE
520 22 (1) S1 F2 FSS: McALESTER
Remarks: P-line S. Attended on call. Soft when wet.

CHERFLD See CACHE

TER'S FLIGHT STRIP See HOBART

EL 1 NW
500 27 (2) S1 F2 FSS: TEXARKANA
Remarks: P-line E. Soft when wet. Attended on call.

EN See SOUTH COFFEYVILLE

IE RAE See CHEROKEE

LY AERO-AUTO CT See DAVIS

R See POTEAU

SEY FLD See WAYNOKA

STONE AIR PARK See CLEVELAND

KING See EAKLY

KINGFISHER 1 NW
1067 26 (1) *L4 S1 F4 FSS: OKLAHOMA CITY
Remarks: P-line S.

KINGSTON
CANEY CREEK 4 SE
661 21 (1) FSS: ARDMORE
Remarks: Unattended.

LAKE TEXOMA STATE PARK 4 E
683 H25 (1) L4 F3 FSS: ARDMORE
Remarks: P-line N.

KOCH See CHECOTAH

LAKE MURRAY ST ARPK See ARDMORE

LAKE TEXOMA STATE PARK See KINGSTON

LAWTON MUNI *IFR* 2 S
1109 H54 (1) BL4 S5 F5, JP1 U-1 VFR ADV: FORT SILL APP CON 118.6 122.5R DEP CON 118.6
FSS: WICHITA FALLS (LC EL 5-1323)
Remarks: P-line, ant NE.

LEXINGTON
PURCELL 1 SW
1100 21 (1) FSS: OKLAHOMA CITY
Remarks: Unattended. Both apchs blkd.

LOMAX RANCH See SKIATOOK

LONE WOLF
HOHMAN 1 SE
1563 H26 (1) F2 FSS: HOBART
Remarks: P-line N, S.

LONG See PRYOR

MADILL
HOMA 1 S
840 28 (1) S1 FSS: ARDMORE
Remarks: P-line N. Unattended.

MANGUM
PONDER 2 N
1585 20 (1) F2 FSS: HOBART

MATTOX FLD See SALLISAW

MAUK'S ARPK See BLACKWELL

MAY See ALVA

McALESTER MUNI *IFR* 3 SW
770 H40 (1) BL4 S5 F4 FSS: McALESTER on Fld
Remarks: Fuel & service at ngt by prior req.

McLAIN 3 LAKE FARM See OKLAHOMA CITY

AIRPORT DIRECTORY

MEDFORD MUNI 1 SW
1094 24 (3) S3 F2 FSS: PONCA CITY
Remarks: P-line W. Attended part time.

MIAMI MUNI 2 NW
811 H40 (2) BL4 S5 F4 U-1
Remarks: Water twr S appch.

MICHAEL See HOLLIS

MILBURN
THUNDERHEAD RCH 5 N
800 20 (1) FSS: ARDMORE
Remarks: Fence each end rnwy. Unattended.

MONKEY ISLAND See AFTON

MOORE
TWELFTH ST AIRPARK Adj NE
1260 27 (1) S5 F4
Remarks: Wet wea. Bldg and P-line S.

MUSKOGEE
DAVIS FLD See Section IV-A

HATBOX FLD 2 W
623 H38 (2) BL4 S5 F4 U-1
FSS: TULSA (LC MU 3-1204)
Remarks: Railways in all appchs.

SCHUMACHER 3 S
568 20 (1) S5 F2 FSS: TULSA
Remarks: P-line N.

MUSTANG FLD See EL RENO

NASH See HUGO

NEWKIRK-SKYPARK 2 SE
1155 31 (1) FSS: PONCA CITY
Remarks: P-line N. S half used as golf course.

NOBLE FLD See NORMAN

NORMAN
GOLDSBY FLD 4 SW
1165 H18 (4) FSS: OKLAHOMA CITY (LC JE 6-0757)

NOBLE FLD 3 SE
1170 25 (1) FSS: OKLAHOMA CITY (LC JE 6-0757)
Remarks: P-line N. Unattended.

WESTHEIMER 3 NW
1178 H58 (3) BL4 S5 F4
FSS: OKLAHOMA CITY (LC JE 6-0757)

NORTH See ENID

NORTH See TULSA

NOWATA MUNI 1 E
600 26 (3) F2 FSS: TULSA
Remarks: P-line W. Unattended. Rnwy 17-35 ruf.

OKEENE MUNI Adj SE
1205 22 (1) FSS: OKLAHOMA C
Remarks: Soft-wet.

OKEMAH 1 E
870 30 (1) FSS: McALES
Remarks: P-lines N, S. Soft when wet.

OKLAHOMA CITY
DOWNTOWN ARPK 2 SW
1180 H34 (2) L4 S5 F4, JP4 U-1
FSS: OKLAHOMA CITY (LC SU 9-745

EXPRESSWAY JUNCTION 5 NE
1050 H30 (1) L4 S5 F4 U-1
FSS: OKLAHOMA CITY (LC SU 9-745
Remarks: P-lines SW.

McLAIN 3 LAKE FARM 7 N
1225 31 (1) F4 FSS: OKLAHOMA CITY (LC SU 9-745
Remarks: Soft when wet.

WILEY POST See Section IV-A

WILL ROGERS WORLD See Section IV-A

OKMULGEE MUNI *IFR* 3 N
715 H43 (3) BL4 S5 F4 U-1 FSS: TUL

OLUSTEE MUNI 2 S
1346 H45 (3) FSS: HOBA

PAULS VALLEY MUNI 2 S
967 H35 (2) BL4 S3 F4 FSS: ARDMO
Remarks: Use rnwys.

PAWHUSKA MUNI 3 W
1000 29 (3) *L S3 F2 U-1 FSS: PONCA C
Remarks: P-line S, SE.

PERRY MUNI 6 N
1008 H52 (3) BL4 S5 F4 U-1 FSS: PONCA C

PHILLIPS See BARTLESVILLE

PIEDMONT
JACK RICHARDS 4 SE
1250 26 (1) F4
Remarks: Attended dalgt hrs.

PONCA CITY 2 NW
1008 H48 (1) BL4 S5 F4 FSS: PONCA CITY
Remarks: Rgt tfc rnwy 17. Unmkd 70' lgt poles adj SE corner of field, 1500' E of N/S rnwy.

POND CREEK MUNI Adj SW
1061 23 (1) FSS: PONCA C
Remarks: Unattended.

PONDER See MANGUM

POTEAU
KERR 2 S
451 H40 (1) BL4 FSS: FORT SM

AIRPORT DIRECTORY

!YOR
LONG 2 NE
650 19 (1) S3 F2 FSS: TULSA
Remarks: Unattended. FEE.

PRYOR 4 N
630 H30 (1) L4 S3 F4 U-1 FSS: TULSA

RCELL
:HANDLER FLD 2 SE
1150 H25 (1) S5 F2 FSS: OKLAHOMA CITY
Remarks: Attended days.

RCELL See **LEXINGTON**

TNAM See **GOULD**

LSTON
IUDSON RCH 3 SE
1000 23 (2) FSS: PONCA CITY

:K RICHARDS See **PIEDMONT**

'ERSIDE See **TULSA**

LLISAW
IATTOX FLD 5 SE
500 20 (1) L4 F2
Remarks: Unattended.

ID SPRINGS
IMS 4 NW
770 25 (1) L4 S5 F4 U-1
FSS: TULSA (LC TE 8-3316)
Remarks: P-line S.

'RE
.RCHER 2 N
1962 H24 (4) S5 F4 FSS: HOBART
Remarks: P-line SW, fence N, S, E, SE.

AYRE MUNI 8 S
1937 H50 (1) B FSS: HOBART

IUMACHER See **MUSKOGEE**

.RCY FLD See **STILLWATER**

LING Adj NW
1750 24 (1) F2 FSS: GAGE
Remarks: Unattended.

IINOLE MUNI 3 N
1024 H30 (1) BL4 S1 F4 FSS: McALESTER
Remarks: Bcn operates dusk-2300.

IUOYAH PARK See **WAGONER**

'EN BAR RCH See **FAIRFAX**

.TTUCK Adj S
2323 24 (2) S3 F2 FSS: GAGE
Remarks: Two 603' lgtd twrs NE. Unattended.

SHAWNEE MUNI 2 NW
1080 H42 (3) BL4 S3 F4 FSS: OKLAHOMA CITY
Remarks: Rgt tfc rnwys 13, 17, 21. Rnwy lgts dusk-2400.

SHEFFIELD See **WEBBERS FALLS**

SHIDLER
VAN CAMP Ad, NW
1170 15 (3) FSS: PONCA CITY
Remarks: P-lines all apchs.

SIEGMANNS See **HENNESSEY**

SIMS See **SAND SPRINGS**

SKIATOOK
LOMAX RANCH Adj W
675 22 (1) U-1 FSS: TULSA
Remarks: Apchs restricted by fence & road.

SKY HARBOR See **CHATTANOOGA**

SOUTH COFFEYVILLE
JENSEN Adj W
735 31 (1) L4 F4 U-1
Remarks: P-line S & E.

STILLWATER
SEARCY FLD 3 NW
985 H50 (3) BL4 S5 F4 U-1 FSS: TULSA (DL)

STROUD MUNI 3 N
900 H26 (2) BL2 S5 U-1 FSS: TULSA
Remarks: P-line W. Fence N, S.

SULPHUR MUNI 1 NW
1060 25 (3) FSS: ARDMORE

SUTHERLAND WELL SERV INC See **HEALDTON**

TAHLEQUAH MUNI 2 NE
870 H22 (1) BL4 F3 U-1 FSS: TULSA

TEMPLE Adj S
1005 26 (1)
Remarks: P-line N end rnwy.

TERRYLAIN FARM See **CLAYTON**

THUNDERHEAD RCH See **MILBURN**

TIPTON MUNI 4 SW
1300 36 (2) F2 FSS: HOBART
Remarks: P-line N, E.

TISHOMINGO ARPK 2 S
640 H31 (1) FSS: ARDMORE

TULSA
HARVEY YOUNG 7 E
750 30 (4) L4 S5 F4 FSS: TULSA (LC TE 8-3316)
Remarks: TV ant E.

AIRPORT DIRECTORY

NORTH 4 NW
725 H30 (1) L4 S5 F4 U-1 FSS: TULSA (LC TE 8-3316)

RIVERSIDE 5 S
624 H40 (1) BL4 S5 F4 U-1 FSS: TULSA (LC TE 8-3316)

TULSA INTL See Section IV-A

TURLEY 5 N
650 22 (1) U-1 FSS: TULSA (LC TE 8-3316)
Remarks: P-line NNE.

TURLEY See TULSA

TURNERS LODGE See BURNEYVILLE

TUSKAHOMA
FOUR STAR RANCH 3 NE
750 30 (1)

TWELFTH ST AIRPARK See MOORE

VAN CAMP See SHIDLER

WAGONER
SEQUOYAH PARK 6 SE
587 H25 (1) L4 FSS: TULSA

WAGONER AIRSTRIP 1 E
600 24 (1) FSS: TULSA
Remarks: P-line S.

WHITEHORN COVE RESORT 5 NE
565 30 (2) U-1 FSS: TULSA

WARES FARM See ENTERPRISE

WATONGA Adj NW
1550 20 (2) L4 S5 F2 FSS: OKLAHOMA CITY
Remarks: Rnwy 8-26 emgcy only.

WAYNOKA
KELSEY FLD 3 NE
1500 15 (1) FSS: GAGE

WAYSIDE See DEWEY

WEBBERS FALLS
HORNE Adj W
480 26 (1) F2
Remarks: P-line N.

SHEFFIELD 1 S
480 26 (1) F2
Remarks: P-line W.

WESTHEIMER See NORMAN

WEST WOODWARD See WOODWARD

WHITEHORN COVE RESORT See WAGONER

WILBURTON MUNI 4W
675 31 (1) S1 F4

WILEY POST See OKLAHOMA CITY, WILEY POST in Section IV-A

WILL ROGERS MUNI See CLAREMORE

WILL ROGERS WORLD See OKLAHOMA CITY, WILL ROGERS WORLD in Section IV-A

WILSON
COCKERELL Adj S
875 20 (1)

WOODRING FLD See ENID

WEST WOODWARD 6 W
2187 H55 (3) BL4 S3 F4 U-1

WYNN See EDMOND

YUKON
CIMARRON FLD 3 SW
1350 41 (4)
Remarks: Rnwy 17-35 only rnwy open.

YUKON 2 E
1275 20 (1) S1 F2
Remarks: P-line N & S. Unattended.

OREGON

AJAX See CONDON

ALBANY MUNI 2 E
220 H30 (1) BL4 S5 F4 U-1 FSS: EUGENE

ALKALI LAKE See WAGONTIRE

ALLEN STRIP See JUNTURA

ANDREWS
WHITE HORSE RANCH 18 SE
4380 28 (2)

APIARY (CLATSKANIE)
BENSON
1400 18 FSS: PORTLAND

ARAGO Adj E
80 14 (1) FSS: NORTH BEND

ARLINGTON
ARLINGTON MUNI 1 NE
872 50 (1) BL4 FSS: THE DALLES

WEST 10 SW
1200 14 (1) FSS: THE DALLES
Remarks: Use at own risk. Soft after frost.

ASHLAND 2 E
1894 25 (1) F3 FSS: MEDFORD (LC 772-5511)
Remarks: P-line SE.

AIRPORT DIRECTORY

STORIA
CLATSOP CO *IFR* 35 W
11 H58 (3) BL4 S5 F4 U-1 FSS: HOQUIAM (DL)

KARPENS 9 E
130 18 (3) FSS: HOQUIAM
Remarks: Ctc Astoria Unicom for rnwy conditions.

IRORA FLIGHT STRIP 1 NW
195 H41 (1) BL4 S5 F4 U-1 FSS: PORTLAND
Remarks: 1000′ gravel overrun each end.

RES See JUNCTION CITY

D PETES See MADRAS

KER MUNI *IFR* 4 NE
3368 H48 (3) BL4 S3 F4 U-1 FSS: BAKER on Fld
Remarks: Rnwy 12 threshold displaced 500′ SE.

NDON 2 SE
60 25 (1) BL4 U-1 FSS: NORTH BEND
Remarks: 80/87 fuel in emgcy by phone.

RCLAY FLD See SISTERS

AVER MARSH 1 SW
4630 54 (1) BL2 FSS: REDMOND
Remarks: Clsd winter mos. Unattended.

AVERTON
ERNARD 1 N
201 16 (1) S5 F4 U-1 FSS: PORTLAND (LC AT 2-7293)

ND
END MUNI 5 NE
3445 H37 (1) BL4 S3 F4 U-1 FSS: REDMOND

TEARNS 14 SW
4170 34 (1) FSS: REDMOND

NSON See APIARY (CLATSKANIE)

RNARD See BEAVERTON

OOKINGS
RISSEY-STATE LINE 4 SE
16 17 (1) U-1 FSS: CRESCENT CITY
Remarks: P-line S. Unattended.

OTHERS Adj NW
4643 23 (1)

RNS MUNI 5 E
4141 H51 (2) BL4 S3 F4 U-1 FSS: REDMOND
Remarks: Lgts on request by unicom.

CADE LOCKS-STEVENSON 1 NE
151 H18 (1) FSS: PORTLAND
Remarks: Rgt tfc WSW.

E JUNCTION
LINOIS VALLEY USFS 4 SW
1389 H52 (1) F2 FSS: CRESCENT CITY

SPORTSMENS RANCH 3 NW
1500 25 (1) FSS: CRESCENT CITY
Remarks: Fence and ditch W.

CHENOWETH ARPK See THE DALLES

CHRISTMAS VALLEY See SILVER LAKE

CITY-COUNTY See MADRAS

CLATSOP CO See ASTORIA

COLUMBIA COUNTY See SCAPPOOSE

CHILOQUIN MUNI 1 SE
4217 H37 (1) BL4 S1 F2 U-1 FSS: KLAMATH FALLS
Remarks: Unattended.

CONDON
AJAX 15 NE
2100 25 (1) FSS: THE DALLES
Remarks: 80/87 fuel emgcy only.

CONDON 1 NE
2910 H21 (1) BL4 FSS: THE DALLES
Remarks: Unattended. 80/87 fuel emgcy only.

JOHNSON 2 NW
2800 17 (1) *L4 FSS: THE DALLES
Remarks: Rnwy soft after frost.

CORVALLIS MUNI 4 SW
246 H52 (3) BL4 S5 F4 U-1 FSS: EUGENE

CURRY COUNTY See DENMARK

COVE
RED'S WALLOWA HORSE RANCH 9 NE
3600 28 (1) FSS: BAKER
Remarks: Use cool mornings and evenings only. Attended dalgt hrs June 15 to Nov. 20.

CRESCENT
DALY'S STRIP Adj W
4400 46 (1) FSS: REDMOND

CRESCENT LAKE FLIGHT STRIP 1 SW
4845 H17 (1) FSS: REDMOND
Remarks: 3900′ strip avail. Unattended.

CRESWELL 3 SW
580 17 (1) S5 F4 FSS: EUGENE
Remarks: Attended dalgt hrs. Soft when wet.

CRISSEY-STATE LINE See BROOKINGS

DALY'S STRIP See CRESCENT

DAVIS See GATES

DECKER RCH See KENT

AIRPORT DIRECTORY

DENMARK
CURRY COUNTY 3 SW
214 H51 (1) BL4 F2 FSS: NORTH BEND
~ Remarks: Unattended.

DUNROAMIN See NORTH POWDER

ELKTON 1 S
120 18 (1) FSS: NORTH BEND

ENTERPRISE MUNI Adj E
3900 25 (1) F2 FSS: BAKER

EUGENE
EUGENE MAHLON-SWEET FLD See Section IV-A

T-BIRD ARPK 4 W
390 H20 (1) L4 F4 FSS: EUGENE (LC DI 3-7738)
Remarks: Poles 780′ SE.

FELT See ROSEBURG

FLORENCE MUNI 1 N
12 22 (1) F2 FSS: NORTH BEND
Remarks: Floods in wet weather. Unattended.

FRENCHGLEN Adj N
4200 27 (1) F2
Remarks: Unattended.

GATES
DAVIS Adj S
1000 20 (1) FSS: PORTLAND
Remarks: Livestock on rnwy.

GOLD BEACH MUNI 1 W
16 H32 (1) BL4 S1 F4 U-1 FSS: CRESCENT CITY

GRANTS PASS
JOSEPHINE CO 6 NW
1122 H40 (1) BL4 S5 F4 U-1 FSS: MEDFORD

HAINES
MUDDY CREEK 4 NW
3450 23 (1) FSS: BAKER
Remarks: P-line SW. Fuel emgcy only.

HALSEY
WAYNES AIR SERVICES 2 SW
285 20 (1)

HAMPTON Adj NW
4416 20 (1) FSS: REDMOND

HANSON See HARRISBURG

HARRISBURG
HANSON 5 NE
320 30 (1)
Remarks: P-line SE.

HARRISBURG 2 NE
300 26 (1)
Remarks: P-line apch rnwy 32. Unattended.

HAYES FLD See POWERS

HERMISTON MUNI 1 SE
635 H26 (1) BL4 F4 U-1 FSS: PENDLETO

HILLSBORO
HILLSBORO *IFR* 2 NE
204 H40 (2) BL4 S5 F4 U-1 FSS: PORTLAND (DL

POEHLER 5 NE
275 13 (1) F3 FSS: PORTLAND (LC AT 2-72
Remarks: P-line E.

HOOD RIVER-COUNTY 2 SW
631 H25 (1) BL4 S5 F4 FSS: THE DALLE
Remarks: No storage. P-line NE.

HUBBARD
LENHARDT 3 E
165 23 (1) F2 FSS: PORTLAN
Remarks: P-line SW. Attended days on call.

IDANHA
STANTIAM JUNCTION 19 SE
3748 29 (1)
Remarks: Land to E, tkof to W. Closed winters.

ILLINOIS VALLEY USFS See CAVE JUNCTION

IMNAHA
IMNAHA USFS 10 SE
6710 35 (1)
Remarks: N end soft when wet.

LORD FLAT (USFS) 11 NE
5580 26 (1)
Remarks: Land from N, tkof to N.

JOHN DAY 1 SW
3700 H45 (1) BL4 F4 U-1 FSS: BAKER

JOSEPH MUNI 1 W
4130 32 (1) BL4 S3 U-1 FSS: BAKER
Remarks: P-line S.

JOSEPHINE CO See GRANTS PASS

JUNCTION CITY
AYRES 2 N
340 18 (1)
Remarks: P-lines NW, SE. Unattended. 80/87 fuel emgcy only.

JUNTURA
ALLEN STRIP 1 S
2970 25 (2) FSS: BAKER
Remarks: Soft when wet. Clsd winter months.

KARPENS See ASTORIA

KENT
DECKER RCH 2 SE
2650 18 (1) FSS: THE DALLE
Remarks: P-lines SW and NE.

AIRPORT DIRECTORY

NGSLEY FLD See KLAMATH FALLS, KINGSLEY FLD in -Section IV-A

.AMATH FALLS KINGSLEY FLD See Section IV-A

-GRANDE MUNI 5 SE
2713 H47 (3) BL4 S3 F4 U-1 FSS: BAKER

.KE O'WOODS Adj NF
4960 30 (1) FSS: KLAMATH FALLS
Remarks: Closed winters. Soft, unusable wet.

KESIDE Adj NW
20 21 (1) FSS: NORTH BEND
Remarks: P-line S.

KEVIEW MUNI 3 SW
4728 H52 (2) BL4 S3 F4 U-1 FSS: KLAMATH FALLS
Remarks: Rnwy 2-20 clsd acft over 12,500 lbs, ruf, loose asphalt. Rnwy 16 first 800 ft ruf, patched asphalt.

NGMACK FLD See SWEET HOME

PINE 2 SW
4250 25 (1) FSS: REDMOND
Remarks: P-line N. Clsd winters.

BANON 1 SW
340 H18 (1) B F4 FSS: EUGENE
Remarks: P-lines N and S. 3000' strip avbl soft wet.

NHARDT See HUBBARD

XINGTON
IORROW CO 1 N
1650 27 (2) S5 F2 FSS: PENDLETON
Remarks: 1300 bit avail. Soft when wet.

NG RANCH See MERRILL

RD FLAT (USFS) See IMNAHA

DRAS
AD PETES 1 S
1900 24 (1) FSS: REDMOND

ITY-COUNTY 2 NW
2432 H73 (3) BL4 S5 F4 U-1 FSS: REDMOND

ILON-SWEET FLD See EUGENE, MAHLON-SWEET FLD in ection IV-A

.IN 1 SE
4050 30 (3) FSS: KLAMATH FALLS
Remarks: Apchs rnwys 1, 32, 34 restricted by P-line.

IZANITA
EHALEM BAY 1 S
37 24 (1) FSS: PORTLAND

ENZIE BRIDGE
cKENZIE USFS 3 E
1620 28 (1) FSS: EUGENE
Remarks: Hill E. Lnd from W; tk-off to W.

McKENZIE USFS See McKENZIE BRIDGE

McKINNON ENTERPRISES See SANDY

McMINNVILLE MUNI 3 SE
156 H50 (2) BL4 S5 F4 FSS: PORTLAND

MEACHAM 1 SE
4058 38 (1) FSS: PENDLETON
Remarks: Soft wet. Clsd winter.

MEDFORD MUNI See Section IV-A

MERRILL
LONG RANCH 5 NW
4080 20 (1) FSS: KLAMATH FALLS

MEYER RIVERSIDE ARPK See TIGARD

MILLER MEML ARPK See VALE

MILLICAN AIRSTRIP
4315 21 (1)
Remarks: P-line apch rnwy 12.

MILTON-FREEWATER
OREG SKY RCH 3 SW
1357 20 (1) S3 F2 FSS: PENDLETON
Remarks: No storage; no svc Sats irregularly attended.

MONUMENT 1 NW
2340 20 (1)

MORROW CO See LEXINGTON

MUDDY CREEK See HAINES

MULINO Adj SW
250 21 (2) L4 S1 F4 FSS: PORTLAND
Remarks: P-lines NE & SW.

NEHALEM BAY See MANZANITA

NEWBERG
SPORTSMAN ARPK 1 SE
178 28 (1) BL4 S5 F4 FSS: PORTLAND
Remarks: Rgt tfc N. P-line N.

NEWPORT MUNI *IFR* 3 S
160 H51 (2) BL4 S1 F4 U-1 FSS: EUGENE
Remarks: Ctn-elec fence W edge NE/SW rnwy and S side S txwy. Rgt tfc rnwy 16 & 20. Unlgtd Poles NW.

NORTH BEND MUNI *IFR* 1 NW
14 H50 (3) BL4, 11 S3 F4 U-1
FSS: NORTH BEND on Fld
Remarks: Lgts on request by rdo thru FSS.

NORTH POWER
DUNROAMIN 5 NW
3450 26 (1) FSS: BAKER
Remarks: Clsd winter months.

AIRPORT DIRECTORY

ONTARIO MUNI *IFR* 2 W
2189 H45 (2) BL4 S5 F4 U-1 FSS: BOISE

OREG SKY RCH See MILTON-FREEWATER

OREGON CITY ARPK 3 S
385 20 (1) S5 F2

OWYHEE
PELICAN POINT 25 SW
2680 18 (1) FSS: BOISE

OXBOW RANCH See PRAIRIE CITY

PACIFIC CITY Adj S
5 H18 (1) S3 F2 U-1 FSS: PORTLAND

PAISLEY MUNI 1 NW
4380 47 (1)

PELICAN POINT See OWYHEE

PENDLETON MUNI See Section IV-A

PINEHURST 1 SW
3650 H17 (1) FSS: KLAMATH FALLS
Remarks: Clsd winters. 3800′ strip avbl.

POEHLER See HILLSBORO

PORTLAND INTL See Section IV-A

POWERS
HAYES FLD Adj SE
280 28 (1) FSS: NORTH BEND
Remarks: Fuel avbl emgcy.

PRAIRIE CITY
OXBOW RANCH 2 S
3820 30 (1) F4
Remarks: P-line N. Turkey farm 1 NW, avoid flying below 1000′.

PRINEVILLE 3 SW
3237 H26 (1) *L4 S5 F4 U-1 FSS: REDMOND
Remarks: 3500′ strip avail.

PROSPECT 1 S
2500 H36 (1) BL4 FSS: MEDFORD
Remarks: Unattended.

REDMOND
ROBERTS FLD *IFR* 1 SE
3077 H70 (2) BL4 S5 F4 FSS: REDMOND on Fld

RED'S WALLOWA HORSE RANCH See COVE

RICH'S See SANDY

ROBERTS FLD See REDMOND

ROGUE-AIR See SHADY COVE

ROME FLIGHT STRIP 21 SW
4010 H60 (1) FSS: BOISE

ROSEBURG
FELT 3 NW
500 19 (1) S5 F2 FSS: EUGENE
Remarks: Soft when wet.

ROSEBURG MUNI *IFR* 1 NW
524 H46 (1) BL4 S5 F4 U-1 FSS: EUGENE
Remarks: Unlgt pole SE; p-line S; avoid hospital SW.

SALEM-McNARY FLD See Section IV-A

SANDY
McKINNON ENTERPRISES 3 N
640 30 (1) F4 FSS: PORTLAND (LC AT 2-7263

RICH'S 1 NE
725 24 (2) S5 F4 U-1 FSS: PORTLAND

SASSER FLIGHT STRIP See WALLOWA

SCAPPOOSE
COLUMBIA COUNTY 1 NE
55 H40 (1) BL4 S5 F4 U-1 FSS: PORTLAND

SEASIDE-GEARHART Adj NE
6 H23 (1) BL4 FSS: HOQUIAM
Remarks: 150′ displaced threshold each end of rnwy.

SENECA
SILVIES STRIP 7 S
30 (1)

SHADY COVE
ROGUE-AIR 1 SW
1450 23 (1) FSS: MEDFORD
Remarks: P-lines N, S. Soft when wet.

SILETZ Adj NE
100 13 (1) F2

SHERIDAN 1 NW
210 18 (1) FSS: PORTLAND

SILVER LAKE
CHRISTMAS VALLEY 17 NE
4350 51 (1) F4 FSS: REDMOND
Remarks: P-line N. Attended days.

SILVER LAKE USFS 1 SW
4475 23 (1) FSS: REDMOND
Remarks: Fence each end rnwy.

SILVIES STRIP See SENECA

SPORTSMAN ARPK See NEWBERG

SPORTSMENS RANCH See CAVE JUNCTION

SISTERS
BARCLAY FLD 1 NE
3165 36 (2) FSS: REDMOND
Remarks: P-line SW.

AIRPORT DIRECTORY

INGFIELD 1 NE
450 H20 (1) BL4 S5 F4 U-1
FSS: EUGENE (LC DI 3-7738)
Remarks: Rgt tfc ldg rnwy 25; W tk-off make 45 turn rgt at 400'.

ITIAM JUNCTION See IDANHA

ARNS See BEND

IERLIN MUNI Adj SW
501 22 (1) S1 F2 FSS: EUGENE
Remarks: Soft when wet.

T HOME
NGMACK FLD 2 E
.50 20 (1) S1 F4 FSS: EUGENE
Remarks: P-lines, N, E, S, W.

D ARPK See EUGENE

DALLES
ENOWETH ARPK 4 W
40 25 (1) L4 S4 F2 FSS: THE DALLES (LC PO 7-1187)
Remarks: Mtn E & W. Rnwy lgts on request by rdo thru FSS.

E DALLES MUNI *IFR* 1 N
43 H51 (3) BL2, 4 S5 F4
FSS: THE DALLES (LC PO 7-1187)

RD
FER RIVERSIDE ARPK 3 SW
52 16 (1)
emarks: P-line apch rnwy 16.

AMOOK-COUNTY 3 SE
5 H50 (2) FSS: PORTLAND
emarks: Water drains adj all rnwys hazardous.

TEE AIRSTRIP USFS 2 S
300 37 (1)
emarks: Open April thru Oct. Land ESE, takof WNW.

DO FLIGHT STRIP 1 S
1 H18 (1) F2 FSS: EUGENE
marks: Apch rnwy 13 restricted by trees.

LER MEML ARPK 1 SW
150 23 (1) BL4 F4 FSS: BOISE
marks: P-line N unattended.

NTIRE
ALI LAKE 11 SW
13 H61 (1) FSS: KLAMATH FALLS

DA BEACH See WALDPORT

PORT
ONDA BEACH 2 SW
19 (1) FSS: EUGENE
marks: P-line N.

WALLOWA
SASSER FLIGHT STRIP 1 S
3200 23 (1) FSS: BAKER
Remarks: Emgcy only.

WASCO Adj E
1447 31 (1) FSS: THE DALLES

WAYNES AIR SERVICE See HALSEY

WEST See ARLINGTON

WHITE HORSE RCH See ANDREWS

PENNSYLVANIA

ALBERT See PHILIPSBURG

ALBION
PORT ALBION 1 S
985 27 (1) S3 F2
Remarks: P-line E. Attended dalgt hrs.

ALIQUIPPA-HOPEWELL 2 SW
1198 17 (2) S5 FSS: PITTSBURGH

ALLEGHENY CO See PITTSBURGH, ALLEGHENY CO in Section IV-A

ALLENTOWN

ALLENTOWN-BETHLEHEM-EASTON See Section IV-A

ALLENTOWN-QUEEN CITY MUNI *IFR* 2 SW
399 H39 (2) L4 S5 F4 U-1
FSS: ALLENTOWN (LC 264-4539)
VFR ADV: For APP CON, DEP CON See ALLENTOWN/BETHLEHAM-EASTON in Section IV-A

ALTOONA
BLAIR COUNTY *IFR* 13 SE
1503 H55 (2) BL4, 11 S5 F4 U-1 FSS: ALTOONA on Fld
Remarks: Sod areas clsd. Acft equipped with 2-way rdo ctc Altoona FSS for tfc info when 15 mi out and prior to starting taxi roll on tkof. REIL rnwy 20.

PETERSON MEML FLD 9 NE
970 H30 (1) *L4 S5 F4 U-1 FSS: ALTOONA
Remarks: P-line apch rnwy 9.

ANDREAS
EAST PENN 2 NE
885 13 (3) S1 F2 FSS: HARRISBURG

ANNVILLE
MILLARD 1 SW
480 H28 (2) L4 S5 F4 U-1 FSS: HARRISBURG

BEAVER COUNTY See BEAVER FALLS

BEAVER FALLS
BEAVER CO *IFR* 3 NW
1252 H45 (1) BL4 S5 F4
FSS: PITTSBURGH (LC TI 3-5222)

AIRPORT DIRECTORY

BEDFORD-WEIDMAN 2 N
1200 H20 (1) S5 F4 FSS: ALTOONA

BELTZVILLE See LEHIGHTON

BENDINSKY See MAHANOY CITY

BENFER
CAMERON Adj #
660 26 (1)

BENNINGERS SKY PORT See TIONESTA

BERKS See READING

BERWICK 2 NE
620 17 (1) S3 F4 U-1 FSS: WILKES-BARRE
Remarks: Unattended. 475' overrun W end-ruf.

BETHEL
GRIMES 1 NE
590 29 (1) S3 F3 FSS: HARRISBURG
Remarks: Unattended.

BETHLEHEM-EASTON See EASTON

BLAIR COUNTY See ALTOONA

BLOOMSBURG MUNI 1 SE
478 36 (1) S5 F4 U-1 FSS: WILLIAMSPORT
Remarks: P-lines E, W.

BLUE SWAN See SAYRE

BRADFORD-McKEAN COUNTY *IFR* 10 S
2142 H50 (2) BL4, 6 F4 FSS: BRADFORD on Fld
VFR ADV: For APP CON, DEP CON See ERIE/PORT ERIE in Section IV-A

HARRI-EMERY 2 SW
1490 21 (1) S3 F2 FSS: BRADFORD (LC FO 2-8860)
Remarks: Clsd winter months.

BRIDGEVILLE
CAMPBELL 3 W
1000 H25 (1) S3 F3 FSS: PITTSBURGH
Remarks: Rgt tfc rnwy 32.

BRISTOL
3M *IFR* 2 N
35 H37 (2) *L1 S3 F4 U-1 FSS: PHILADELPHIA
VFR ADV: For APP CON, DEP CON See PHILADELPHIA/INTL in Section IV-A

BURNT CABINS 1 NE
850 30 (1) FSS: ALTOONA

BUTLER-GRAHAM FLD *IFR* 5 SW
1248 H40 (1) BL4 S3 F4 U-1
FSS: PITTSBURGH (LC BU 5-3223)
VFR ADV: For APP CON, DEP CON See PITTSBURGH/GREATER PITTSBURGH in Section IV-A

FARM SHOW ROE 3 W
1335 H26 (1) L4 S5 F4
FSS: PITTSBURGH (LC BU 5-3[illegible]
Remarks: Rnwy lgts dusk-2400.

CAMERON See BENFER

CAMPBELL See BRIDGEVILLE

CAMPBELLTOWN
REIGLE FLD 1 N
475 19 (1) S3 F2
Remarks: Attended 24 hrs. Apr-Nov; evenings & wkends Nov-Apr.

CARBONDALE-CLIFFORD See CLIFFORD

CARGILL See GRANVILLE

CARLISLE CITY 2 SE
515 28 (1) L4 S5 F4 U-1 FSS: HARRISB[illegible]
Remarks: Rnwy 29 threshold displaced 600' to E. Lgts dusk to 2300.

CARNAHAN See PROSPECT

CENTRAL BUCKS COUNTY MUNI See DOYLESTOWN

CENTRE AIRPARK See CENTRE HALL

CENTRE HALL
CENTRE ARPK 2 SE
1320 23 (1) S3 F2 FSS: PHILIPSB[illegible]

CHAMBERSBURG
SUNSET AIRWAYS 3 NE
670 21 (2) FSS: MARTINSB[illegible]
Remarks: P-line E, NE. Irregularly attended. Rnwy 17, [illegible] Rgt tfc rnwy 35.

CHEMUNG VALLEY See SAYRE

CHERRY SPRINGS See GALETON

CHESS-LAMBERTON See FRANKLIN

CHESTER COUNTY AREA See COATESVILLE

CLARION
RHEA FLD 3 NW
1450 23 (1) S5 F4 U-1 FSS: DU BOI[illegible]

CLEARFIELD 1 SW
1220 25 (1) L S5 F4 FSS: WILKES-BA[illegible]
Remarks: Rgt tfc E.

CLIFFORD
CARBONDALE-CLIFFORD 1 E
1400 22 (2) S3 F4 FSS: WILKES-BA[illegible]
Remarks: Attended dalgt hrs.

AIRPORT DIRECTORY

TESVILLE
!ESTER COUNTY AREA *IFR* 2 W
523 H35 (1) BL4, 11 S3 F4 FSS: PHILADELPHIA (DL)
Remarks: Rgt tfc rnwy 11. Down draft apch end rnwy 29.
REIL rnwy 11 activated for 15 min by keying unicom mike 5 times 14 mi out.

.EGEVILLE
RKIOMEN VALLEY 1 NE
:80 30 (2) *L4 S5 F4 U-1 FSS: PHILADELPHIA
Remarks: P-line E, NE.

JMBIA
GINNESS Adj SE
334 18 (2) S3 F2 FSS: HARRISBURG

(ELLSVILLE 4 SW
260 H34 (3) BL4 S5 F4 U-1 FSS: PITTSBURGH

:Y
'RENCE 1 S
745 24 (3) S3 F2 FSS: ERIE
Remarks: Irregularly attended April 15-Dec 1 only. Rnwy 19, 10 blkd.

'ERSPORT
TATO CITY 7 SE
480 33 (2) S5 F4 FSS: BRADFORD
Remarks: Unattended.

SON 1 NE
240 24 (1) S3 F2 FSS: ALTOONA

ERVILLE 1 NW
220 17 (2) S3 F2 FSS: PITTSBURGH
emarks: Clsd Dec thru Mar.

ERLAND VALLEY See NEW KINGSTOWN

ILLE 2 SW
30 24 (2) L4 S5 F4 FSS: WILLIAMSPORT
emarks: Rnwy lgts on prior request after 10 pm.

NER See HANOVER

SOM'S See GETTYSBURG

GAL See MOUNT JOY

INGTOWN 2 SW
30 31 (3) S3 F4 FSS: PHILADELPHIA
emarks: P-lines E, SE, NW.

ESTOWN
ITRAL BUCKS CO MUNI 2 NE
)0 31 (2) L4 S3 F4 FSS: PHILADELPHIA
emarks: P-lines NE, SE, W.

RINGTON 3 S
15 28 (2) L2 S3 F4 U-1 FSS: PHILADELPHIA
emarks: Clsd transient acft Dec 31-May 1, unless fld conditions verified by telephone or unicom. P-line SW. Maj airframe repairs.

DU BOIS-JEFFERSON CO *IFR* 7 NW
1814 H47 (1) BL4 S3 F4 U-1 FSS: DU BOIS on Fld

EAGLES MERE MUNI 2 SW
1908 21 (1) FSS: WILLIAMSPORT

EASTON
BETHLEHEM-EASTON 4 SW
360 22 (2) L4 S5 F2 U-1 FSS: ALLENTOWN
Remarks: P-lines E, NE.

EASTON 3 NW
380 22 (4) *L4 S5 F4 U-1 FSS: ALLENTOWN
Remarks: P-lines N, NW, SE.

EAST PENN See ANDREAS

EAST PITTSBURG See PITCAIRN

EAST STROUDSBURG
HAMLEN 3 NE
480 22 (1) S1 F4 U-1 FSS: ALLENTOWN

EBENSBURG 2 SW
2100 23 (1) L4 S3 F2 FSS: ALTOONA

EMLENTON MUNI 2 NE
1450 24 (2) S3 F4 FSS: DU BOIS
Remarks: Unattended.

EMPORIUM
KEYSTONE Adj SW
1030 22 (1) FSS: BRADFORD

PORT ERIE See Section IV-A

FARM SHOW ROE See BUTLER

FARMERS PRIDE See FREDERICKSBURG

FINLEYVILLE 1 SW
1240 26 (1) S5 F2 FSS: PITTSBURGH

FRANKLIN
CHESS-LAMBERTON *IFR* 2 SW
1540 H52 (1) BL4 S5 F4 U-1 FSS: YOUNGSTOWN
VFR ADV: For APP CON See YOUNGSTOWN MUNI, OHIO in Section IV-A

FREDERICKSBURG
FARMERS PRIDE Adj W
495 29 (1) L4 S3 F2 U-1 FSS: HARRISBURG

FREEPORT
McVILLE 5 NE
1090 15 (2) S1 F2 FSS: PITTSBURGH
Remarks: P-line N. 600' overrun N end rnwy 18-36.

GALETON
CHERRY SPRINGS 9 SW
2330 31 (1) S5 F3 U-1 FSS: BRADFORD

GARDEN SPOT AIRPARK See LANCASTER

AIRPORT DIRECTORY

GENERAL SPAATZ FLD See **READING, GENERAL SPAATZ FLD** in Section IV-A

GETTYSBURG
DOERSOM'S 2 NW
590 H30 (1) S5 F4 FSS: HARRISBURG
Remarks: Rgt tfc rnwy 5. 600′ overrun and soft shoulders rnwy 5-23.

GETTYSBURG 2 NW
612 28 (3) S3 F2 U-1 FSS: HARRISBURG
Remarks: Rgt tfc rnwy 19.

GORDON 2 SW
960 22 (2) F2 FSS: ALLENTOWN
Remarks: Rgt tfc rnwy 31. Attended evenings and weekends.

GRAND CANYON STATE See **WELLSBORO**

GRANVILLE
CARGILL 1 SW
490 20 (1) S1 FSS: HARRISBURG
Remarks: Unattended.

GREATER PITTSBURGH See **PITTSBURGH, GREATER PITTSBURGH** in Section IV-A

GREEN COUNTY See **WAYNESBURG**

GREENVILLE MUNI 3 N
1197 27 (2) S3 F2 U-1 FSS: YOUNGSTOWN
Remarks: Glider operations.

GRIMES See **BETHEL**

HALLSTEAD
ULCO 1 SE
880 24 (1) F3 FSS: BINGHAMTON
Remarks: Clsd Jan thur Mar. Attended summer evenings and Sundays.

HAMLEN See **EAST STROUDSBURG**

HANOVER
DEVENER 2 NE
620 32 (2) *L4 S5 F4 FSS: HARRISBURG

HARRI-EMERY See **BRADFORD**

HARRISBURG-YORK STATE See Section IV-a

SKYPORT 4 W
420 22 (4) S5 F4 U-1 FSS: HARRISBURG

HAWLEY-GREENETOWN MTN BAY
LAKE WALLENPAUPACK 6 SW
1460 18 (1) *L4 S5 F3 U-1

HAZLETON MUNI *IFR* 2 N
1604 H49 (1) BL4 F4 U-1 FSS: WILKES-BARRE
VFR ADV: For APP CON, DEP CON See WILKES-BARRE/WILKES-BARRE-SCRANTON in Section IV-A

HERSHEY AIRPARK 1 NW
415 H30 (1) L4 S5 F4 U-1 FSS: HARRISBURG (LC 233-59

HI-LINE See **MONTGOMERYVILLE**

HONESDALE 2 SE
920 29 (1) S5 F2 U-1 FSS: WILKES-BAR
Remarks: Unmrkd twr W.

INDIANA CO (JIMMY STEWART) FLD 2 NE
1407 H36 (1) BL4 S5 F4 U-1 FSS: ALTOO

INTER COUNTY See **IRWIN**

IRWIN
INTER COUNTY 4 W
1250 18 (1) FSS: PITTSB..R

JERSEY SHORE 2 E
540 24 (1) S3 F2 FSS: WILLIAMSPORT (LC 366-55

JOHNSTOWN-CAMBRIA CO *IFR* 4 S
2284 H55 (3) BL4, 6 S5 F4 U-1 FSS: ALTOO
Remarks: Sod areas clsd.

KELLER BROS See **SCHAFFERSTOWN**

KEYSTONE See **EMPORIUM**

KINGS See **RIDGEWAY**

KUTZTOWN AIRPARK 1 SW
512 H25 (1) L4 S4 F4 U-1 FSS: ALLENTOWN
Remarks: P-lines E, NNW. Fee for business ach.

LAKE WALLENPAUPACK See **HAWLEY-GREENTOWN MTN BA**

LANCASTER
GARDEN SPOT ARPK *IFR* 4 W
423 H27 (1) L4 S5 F3 U-1 FSS: HARRISBU

LANCASTER *IFR* 5 N
403 H50 (2) BL4, 11 S5 F4 FSS: HARRISBU
VFR ADV: For APP CON, DEP CON See HARRISBURG YORK STATE in Section IV-A
Remarks: Use rnwys. REIL rnwy 8.

LANGHORNE
OLD STAR 2 E
180 24 (2) S4 F2 FSS: PHILADELPH

LATROBE
WESTMORELAND-LATROBE *IFR* 2 SW
1141 H44 (2) BL4 S5 F4 U-1 FSS: PITTSBURGH
VFR ADV: Cleveland ARTC APP CON SVC 126.8 124.3
Remarks: Rnwy 3 threshold displaced 800′ N.

LAWRENCE See **CORRY**

LEECHBURG 1 SE
960 18 (2) S5 F2 FSS: PITTSBURGH
Remarks: P-line E.

AIRPORT DIRECTORY

IGHTON
LTZVILLE 3 E
:5 21 (2) S5 F3 FSS: ALLENTOWN

HIGHTON 1 SW
:67 16 (2) L4 S5 F4 FSS: ALLENTOWN

SBURG 1 NW
:80 32 (1) S5 F2 FSS: WILLIAMSPORT
Remarks: Wires, apch rnwy 9.

STOWN 3 SW
60 20 (2) S5 F2 FSS: PHILIPSBURG
Remarks: P-line NW.

SVILLE
RRY'S PYMATUNING 1 NW
:00 30 (2) F4 U-1 FSS: ERIE
emarks: P-line NNE. Unattnd.

HAVEN 1 E
55 H33 (1) BL4 S5 F4 U-1 FSS WILLIAMSPORT (DL)
emarks: Ruf.

MING-SUSQUEHANA See WILLIAMSPORT

RIO See MALVERN

NOY CITY
IDINSKY 2 SE
716 40 (2) FSS: ALLENTOWN

ERN
:ARIO 3 NW
15 36 (1) S1 F2 FSS: PHILADELPHIA
emarks: Rgt tfc rnwy 7. Unattended.

INSBURG See ALTOONA, BLAIR COUNTY ARPT

ORAS MUNI Adj SE
0 H15 (2) *L2, 3 S5 F2
marks: 3225' strip available. Rgt tfc N, NE.

NESS See COLUMBIA

LE See FREEPORT

/ILLE
T MEADVILLE 3 W
00 H30 (2) BL4 S5 F4 U-1 FSS: ERIE

'S PYMATUNING See LINESVILLE

'ATE See PHILIPSBURG

IN COUNTY See REEDSVILLE

RD See ANNVILLE

N 1 S
0 25 (3) S3 F2 U-1 FSS: WILLIAMSPORT
marks: P-line W, SW.

MONOGAHELA
THOMPSON MEML 4 S
1240 17 (2) L4 F2 FSS: PITTSBURGH

MONROEVILLE
PITTSBURGH-MONROEVILLE 1 N
1187 H23 (1) S3 F4 FSS: PITTSBURGH
Remarks: Rgt tfc S, W. Rnwy tfc rnwy 22. Lndg Fee if no servicing.

MONTGOMERYVILLE
HI-LINE 1 SE
400 H16 (1) BL4 S5 F4 U-1 FSS: PHILADELPHIA
Remarks: 2674' strip avbl.

MOORHEAD AIRPARK See NORTH EAST

MOORISVILLE 2 W
100 22 (1) S3 F4 FSS: PHILADELPHIA (LC EX 6-4408)
Remarks: P-line E

MOUNT JOY
DONEGAL 2 SE
459 23 (1) S1 F2 FSS: HARRISBURG

MOUNT PLEASANT-SCOTTDALE 2 S
1160 19 (2) *L4 S5 F4 U-1 FSS: PITTSBURGH

MOUNT POCONO *IFR* 2 NW
1915 H40 (2) BL4 F4 U-1 FSS: WILKES-BARRE
VFR ADV: For APP CON, DEP CON See WILKES-BARRE/WILKES-BARRE-SCRANTON in Section IV-A
Remarks: Use cntr of NW/SE rnwy only, edges heaved from frost; deer on arpt area.

MOUNT UNION 3 S
560 28 (1) *L4 S3 F2 FSS: ALTOONA

NEW ALEXANDRIA 1 NE
1200 20 (2) S5 F4 FSS: PITTSBURGH
Remarks: P-line N.

NEW CASTLE MUNI 3 N
1072 H29 (2) L4 S3 F4 FSS: YOUNGSTOWN

NEW HANOVER Adj W
300 19 (2) S3 F4 FSS: PHILADELPHIA
Remarks: P-lines SE.

NEW HOLLAND 1 E
460 H22 (1) L4 S3 F2 U-1 FSS: HARRISBURG

NEW KINGSTOWN
CUMBERLAND VALLEY 2 SW
440 26 (1) L4 F2 U-1 FSS: HARRISBURG

NEW LONDON Adj W
500 24 (1) L4 S5 F4 FSS: PHILADELPHIA

NORTH EAST
MOORHEAD ARPK 3 SW
800 21 (2) L4 S5 F2 FSS: ERIE (LC TE 3-1345)
Remarks: P-line NE; post E.

AIRPORT DIRECTORY

NORTH PHILADELPHIA See **PHILADELPHIA, NORTH** PHILADELPHIA in Section IV-A

OIL CITY
SPLANE MEML 3 NW
1560 22 (2) S3 F4 FSS: YOUNGSTOWN
Remarks: Irregularly attended.

OLD STAR See **LANGHORNE**

OXFORD 3 SE
520 20 (2) L1 S3 F2 FSS: HARRISBURG
Remarks: P-lines SW, NW.

PENN VALLEY See **SELINSGROVE**

PERKIOMEN VALLEY See **COLLEGE VILLE**

PETERSON MEMORIAL FIELD See **ALTOONA**

NORTH PHILADELPHIA See Section IV-A

PHILADELPHIA INTL See Section IV-A

WINGS FIELD 2 SW
320 H26 (1) BL6 S5 F4 U-1
FSS: PHILADELPHIA (DL)
VFR ADV: For APP CON, DEP CON See PHILADELPHIA/ INTL in Section IV-A
Remarks: P-lines SE.

PHILIPSBURG
ALBERT 5 NW
1750 35 (1) S1 FSS: PHILIPSBURG

MID-STATE *IFR* 6 E
1933 H50 (2) BL4 F4 FSS: PHILIPSBURG

PINE GROVE 4 SW
480 39 (1) L4 U-1 FSS: HARRISBURG
Remarks: Attended evenings and Suns. 2140' rnwy 10 lgtd on request. Rgt tfc rnwy 28.

PITCAIRN
EAST PITTSBURGH 9 SE
1150 19 (2) F2 FSS: PITTSBURGH
Remarks: Irregularly attended.

PITTSBURGH ALLEGHENY CO See Section IV-A

GREATER PITTSBURGH See Section IV-A

PITTSBURGH-MONROEVILLE See **MONROEVILLE**

PORT ALBION See **ALBION**

PORT ERIE See **ERIE, PORT ERIE** in Section IV-A

PORT MEADVILLE See **MEADVILLE**

POTATO CITY See **COUDERSPORT**

POTTSTOWN 4 E
311 H23 (1) BL4 S5 F4 U-1 FSS: PHILADELP·
Remarks: Ant NE. Additional 1710' turf W end. Rgt tfc ln; to SE.

POTTSTOWN MUNI *IFR* 1 NW
256 H27 (1) BL4 S3 F4 U-1 FSS: PHILADELP·

POTTSVILLE
SCHUYLKILL 7 SE
510 28 (1) L4 F4 U-1 FSS: ALLENTO

SCHUYLKILL CO (ZERBEY) 8 NW
1724 H46 (1) B *L4 S1 F4 U-1 FSS: ALLENTO

TROPP 3 NW
960 18 (1) L2 S3 F2 FSS: ALLENTO

PROSPECT
CARNAHAN 2 S
1300 25 (1) L S5 F2
FSS: PITTSBURGH (LC BU S-

PROSPECTVILLE
TURNER FLD 1 NW
375 H21 (1) *L4 S5 F4 FSS: PHILADELPHIA

PUNXSUTAWNEY MUNI 3 NE
1470 20 (2) S3 F4 FSS: DU B
Remarks: P-lines ESE. Unattended.

QUAKERTOWN MUNI 2 W
520 18 (2) *L4 S3 F2 FSS: ALLENTO

READING
BERKS 4 NW
360 23 (2) S5 F2 U-1 FSS: HARRISBU
Remarks: W blkd. Rgt tfc rnwy 27.

GENERAL SPAATZ FLD See Section IV-A

REEDSVILLE
MIFFLIN CO 2 N
830 28 (1) L4 S3 F4

REIGLE FIELD See **CAMPBELLTOWN**

REMICH See **TARENTUM**

RHEA FIELD See **CLARION**

RIDGEWAY
KING'S 3 NW
1720 21 (1) S1 F2 FSS: D. BC

ST MARY'S MUNI 3 SE
1911 H24 (1) BL2, 10, 11 S5 F4 U-1 VASI: R-·Y·
FSS: D. 30
Remarks: 3500 strip avbl. REIL and VASI avbl rnwy 2·.

SAYRE
BLUE SWAN 2 NW
800 30 (1) S3 F2 FSS: E.·ll
Remarks: Attended evenings and weekends. Rgt tfc r·· ·b·

AIRPORT DIRECTORY

IEMUNG VALLEY 1 W
850 28 (2) F2 FSS: ELMIRA
Remarks: P-line E. Rgt tfc mwys 1 and 28.

AFFERSTOWN
ELLER BROS 2 W
450 28 (1) S5 F4
Remarks: Irreg. attended.

JYLKILL See POTTSVILLE

JYLKILL COUNTY (ZERBEY) See POTTSVILLE

UNTON MUNI 6 NW
1179 H24 (2) B°L2 S5 F4 U-1 FSS: WILKES-BARRE
VFR ADV: For APP CON, DEP CON See WILKES-BARRE
WILKES-BARRE-SCRANTON in Section IV-A

NSGROVE
NN VALLEY 1 N
544 H30 (1) B°L4 S5 F4 U-1 FSS: WILLIAMSPORT
Remarks: 500' overrun each end rnwy 17-35.

IOKIN 3 N
500 20 (2) L4 S5 F4 U-1 FSS: WILLIAMSPORT
Remarks: Lgts oper dusk-midnight.

ON 3 SE
1140 24 (3) BL4 F4 U-1 FSS: YOUNGSTOWN

PENSBURG 3 E
960 18 (2) L4 S3 F2 FSS: HARRISBURG

AVEN See TUNKHANNOCK

ORT See HARRISBURG

INGTON MUNI 1N
980 19 (1) S3 F3 FSS: ALLENTOWN
emarks: Irregularly attended.

RSET CO 3 NE
2274 H35 (1) BL4 S5 F4 U-1 FSS: ALTOONA
emarks: P-line NW. 5100' strip avbl.

NE MEMORIAL See OIL CITY

E COLLEGE
TE COLLEGE AIR DEPOT 2 SW
1241 41 (3) °BL4 F4 U-1 FSS: PHILIPSBURG
emarks: FEE. Bcn prior request.

VERSITY PARK *IFR* 3 N
1241 H30 (1) BL4 S5 F4 FSS: PHILIPSBURG

JRY 2 NE
1383 34 (1) S5 F3 FSS: WILLIAMSPORT

:T AIRWAYS See CHAMBERSBURG

NTUM
UCH 4 W
2125 26 (1) S5 F2 FSS: PITTSBURGH
emarks: Clsd Fri. P-line S.

TASA See ZELIENOPLE

THERMAL G RANCH GLIDERPORT See WATERFORD

THOMPSON MEMORIAL See MONONGAHELA

THREE M See BRISTOL

TIONESTA
BENNINGERS SKY PORT 2 SE
1600 27 (1) S5 F4 FSS: DU BOIS

TITUSVILLE 2 SW
1600 19 (1) F2 FSS: ERIE
Remarks: Irregularly attended.

TOWANDA 2 SE
700 H24 (1) °L4 S3 F2 FSS: ELMIRA

TREXLERTOWN 1 E
400 21 (1) L4 S3 F2 U-1
FSS: ALLENTOWN (LC 264-4539)

TROPP See POTTSVILLE

TUNKHANNOCK
SKYHAVEN 1 S
639 20 (1) S5 F2 FSS: WILKES-BARRE

TURNER FIELD See PROSPECTVILLE

ULCO See HALLSTEAD

UNIVERSITY PARK See STATE COLLEGE

WARREN MUNI 1 SW
1190 H22 (1) S3 F2 FSS: BRADFORD

WARRINGTON See DOYLESTOWN

WASHINGTON CO 3 SW
1185 H37 (1) BL4 S5 F4 U-1 FSS: WHEELING
VFR ADV: For APP CON, DEP CON See PITTSBURGH/
GREATER PITTSBURGH in Section IV-A

WATERFORD
THERMAL G RANCH GLIDERPORT 6 NW
1430 16 (1)
Remarks: 1000' overrun on W end.

WAYNESBURG
GREEN COUNTY 3 E
1065 H35 (1) BL4 S3 F4 U-1 FSS: MORGANTOWN
Remarks: Hills SE.

WELLSBORO
GRAND CANYON STATE 5 SW
1900 H21 (1) S5 F3 FSS: ELMIRA
Remarks: P-line E.

WEST CHESTER 2 NE
470 28 (2) S5 F2 U-1 FSS: PHILADELPHIA
Remarks: P-line E.

AIRPORT DIRECTORY

WEST MIDDLESEX 2 W
1090 25 (2) S5 F2 FSS: YOUNGSTOWN
Remarks: Fence NW.

WESTMORELAND-LATROBE See LATROBE

WILKES-BARRE
WILKES-BARRE-SCRANTON See Section IV-A

WILKES-BARRE WYOMING VALLEY 3 NE
546 H34 (2) BL4 S5 F3 U-1 FSS: WILKES-BARRE
VFR ADV: For APP CON, DEP CON See WILKES-BARRE/WILKES-BARRE-SCRANTON in Section IV-A
Remarks: Dike E. P-line S. Lgts prior request after 2300.

WILLIAMSPORT
LYCOMING-SUSQUEHANA 3 W
538 24 (1) S3 F4 FSS: WILLIAMSPORT (LC 368-8547)
Remarks: P-lines W. Unattended. Rgt tfc rnwy 10.

WILLIAMSPORT-LYCOMING CO See Section IV-A

WINGS FIELD See PHILADELPHIA

YORK *IFR* 7 SW
480 H42 (1) BL4 S5 F4 FSS: HARRISBURG
VFR ADV: For APP CON, DEP CON See HARRISBURG/YORK STATE in Section IV-A
Remarks: Shoulders soft. Lndg FEE acft over 12,500 lbs, if no fuel purchased.

ZELIENOPLE
TASA 1 W
900 38 (2) L4 S3 F4 FSS: PITTSBURGH

RHODE ISLAND

BLOCK ISLAND-STATE 1 SW
105 H25 (1) BL4 S1 F4 U-1 FSS: PROVIDENCE

COVENTRY AIR PARK 3 E
260 30 (2) FSS: PROVIDENCE

GREENE
RICONN 2 W
390 16 (2) FSS: PROVIDENCE
Remarks; Apach rnwy 32 restricted by P-line.

LANGWORTHY FLD See WESTERLY

NEWPORT STATE 3 NE
160 H20 (2) S5 F4 U-1 FSS: PROVIDENCE
Remarks: 2600' strip avbl. Fence NE. Clsd ngts.

NO CENTRAL STATE See SMITHFIELD

PROVIDENCE GREEN See Section IV-A

RICHMOND ARPK See W KINGSTON

RICONN See GREENE

SMITHFIELD
NO CENTRAL STATE 3 E
429 H50 (2) BL4, 6 S5 F4 U-1 FSS: PROVIDEN
Remarks: Use runwys. Gliders rgt tfc ptn.

GREEN See PROVIDENCE, GREEN in Section IV-A

WESTERLY
LANGWORTHY FLD 3 SE
14 15 (2) FSS: PROVIDEN
Remarks: Wires NW.

WESTERLY-STATE 2 SE
81 H40 (2) BL4 S5 F4 U-1 FSS: PROVIDEN
Remarks: Rnwy lgts prior request after 2400.

W KINGSTON
RICHMOND AIRPARK 3 W
130 22 (1) S5 F2 FSS: PROVIDEN
Remarks: P-line SE.

WOONSOCKET 2 SE
400 17 (3) S5 F2 FSS: PROVIDEN
Remarks: P-line N, NE. E blkd by trees.

SOUTH CAROLINA

ABBEVILLE
DAVIS FLD 2 SE
550 21 (1) S3 F2 FSS: ANDERSON
Remarks: P-line WSW.

AIKEN MUNI *IFR* 6 NE
530 H50 (3) B S5 F4 U-1 FSS: ALGS
VFR ADV For APP CON, DEP CON See AUGUSTA BUSH FLD GEORGIA in Section IV-A

ALLENDALE
WILLIAMS FLD 1 NE
187 29 (3) F2 FSS: AUGUST

ANDERSON
ANDERSON COUNTY *IFR* 3 SW
782 H50 (2) B S5 F4 FSS: ANDERSON
VFR ADV For APP CON, DEP CON See GREENVILLE GREENVILLE MUNI DOWNTOWN in Section IV-A
Remarks: Use rnwys.

LAZY ACRES 8 SW
731 16 (2) FSS: ANDERSON
Remarks: P-line NE. Bend 400' NW end.

ANDREWS
OVERTON FLD 2 SW
34 31 (2) S1 F4 FSS: MYRTLE BEACH
Remarks: P-line N. Unattended.

ASHLEY See HONEA PATH

BAMBERG
CARLISLE FLD 3 SE
140 26 (2) L4 FSS: CHARLESTON
Remarks: Unattended. P-line N, NE.

AIRPORT DIRECTORY

WELL COUNTY 1 NW
35 H53 (3) BL4 F2 FSS: AUGUSTA
Remarks: Unattended.

SBURG
N CITY 3 SE
37 24 (2) FSS: FLORENCE
Remarks: P-line apch rnwy 12. Unattended.

FORT COUNTY 3 SE
) H31 (1) L4 F4 FSS: SAVANNAH
FR ADV BEAUFORT APP CON 125.6, 122.5R; DEP CON 122.5R
emarks: P-line SW. Unattended. Fuel avbl by phone.

ETTSVILLE
VE Adj NE
90 41 (3) BL4 F4 FSS: FLORENCE
emarks: P-line N, ent S. House.

PVILLE MUNI 2 N
20 27 (1) L4 F2 FSS: FLORENCE

N See LAKE CITY

OUN FALLS
TER MEML 1 SE
17 38 (1) L4 F2 FSS: ANDERSON
emarks: Unattended.

EN
DWARD FLD 3 NE
X0 H30 (2) L4 S5 F4 FSS: FLORENCE
FR ADV SHAW APP CON 119.7

OBELLO 4 SW
'9 19 (2) FSS: GREER
marks: P-line apchs rnwys 29, 36.

SLE FIELD See BAMBERG

INA SKYWAYS See CHARLESTON

ESTON
RLESTON AFB/MUNI See Section IV-A

OLINA SKYWAYS 5 S
26 (3) S3 F4 FSS: CHARLESTON (LC SH 7-1048)

'S ISLAND 6 SW
H50 (3) S5 F4 FSS: CHARLESTON (LC SH 7-1048)

W MUNI 4 NW
5 38 (2) FSS: FLORENCE

KEE See GAFFNEY

ER MUNI 5 N
9 H50 (3) L4 F4 FSS: FLORENCE

H BRANCH See SUMMERTON

ON-OCONEE CO 3 W
1 H30 (1) BL4 FSS: ANDERSON

CLIO
MACK LAMAR 2 NE
172 18 (2) F2
Remarks: Unattended.

COULBOURN See LANCASTER

CRESCENT BEACH
MYRTLE BEACH Adj N
33 H50 (1) BL4 S3 F4 U-1
FSS: MYRTLE BEACH (LC 448-7187)
VFR ADV MYRTLE BEACH APP CON 120.7
Remarks: Fuel on request after dark.

DARLINGTON CO 9 N
190 H50 (3) L4 S5 F4 FSS: FLORENCE (LC MO 9-9573)
Remarks: 3000' rnwy 5-23 lghtd.

MOORE'S 2 SW
159 29 (1) *L4 S1 F2 U-1
FSS: FLORENCE (LC MO 9-9573)
Remarks: P-line N and S. 2000' rnwy lgtd on req phone. EX 3-1471 or EX 3-2277.

DAVIS FIELD
DAVIS FIELD See ABBEVILLE

DAVIS FIELD See GARNETT

DICKSON FIELD See DUE WEST

DILLON COUNTY 2 N
134 H30 (1) BL4 FSS: FLORENCE

DORCHESTER CO See ST GEORGE

DUE WEST
DICKSON FLD 2 NW
640 23 (1) FSS: ANDERSON
Remarks: Unattended.

ESTILL MUNI 2 SW
130 25 (2) FSS: SAVANNAH

HARPER'S 1 NE
111 33 (1) FSS: SAVANNAH
Remarks: P-line SSW. Ditch W.

EXPERIMENTAL STA AIRSTRIP See PONTIAC

FLORENCE MUNI *IFR* 2 E
146 H60 (3) BL4, 6 S5 F4 FSS: FLORENCE on Fld

GAFFNEY
CHEROKEE 2 N
796 28 (1) FSS: GREER

GARNETT
DAVIS FLD 6 NW
75 27 (1)
Remarks: P-line SSE.

GEORGETOWN COUNTY 4 SW
39 H50 (3) BL4 S3 F4 U-1 FSS: MYRTLE BEACH

AIRPORT DIRECTORY

GOAT ISLAND See SUMMERTON

GREENVILLE MUNI DOWNTOWN See Section IV-A

GREENVILLE-SPARTANBURG See GREER in Section IV-A

GREENWOOD COUNTY *IFR* 3 N
631 H52 (3) BL4 S5 F4 U-1 FSS: ANDERSON
VFR ADV For APP CON, DEP CON See GREENVILLE/GREENVILLE MUNI-DOWNTOWN in Section IV-A

GREER
GREENVILLE-SPARTANBURG See Section IV-A

O'NEAL FLD 4 NW
975 20 (1) FSS: GREER
Remarks: P-line NW.

HAMPTON-VARNVILLE 1 E
110 28 (2) L4 F2 FSS: SAVANNAH

HARPER'S See ESTILL

HARTSVILLE MUNI 3 NW
379 35 (2) L4 F4 U-1 FSS: FLORENCE

HEMINGWAY-STUCKEY 3 SW
51 H20 (1) L4 F2
Remarks: Unattended. 3050' strip avbl.

HESTER MEML See CALHOUN FALLS

HILTON HEAD 3 E
15 28 (1) L4 FSS: SAVANNAH
VFR ADV BEAUFORT APP CON 125.6, 122.5R; DEP CON 122.5R

HONEA PATH
ASHLEY 2 E
780 21 (2) S1 FSS: ANDERSON

HUGGINS See TIMMONSVILLE

ISLE OF PALMS
WILSON MEML 1 NE
8 29 (1) FSS: CHARLESTON

JOHN'S ISLAND See CHARLESTON

KERSHAW MUNI 3 S
475 25 (2)
Remarks: P-line SW, NW. Unattended.

KLINE
WALKERS 3 S
280 21 (2)
Remarks: P-line NE.

LAKE CITY
BROWN 2 SW
75 22 (2) FSS: FLORENCE

LANCASTER
COULBOURN 2 SW
560 32 (2) S1 F2 FSS: FLOREN
Remarks: Unattended.

LANE 2 S
72 34 (2) BL2 FSS: CHARLEST
Remarks: Unattended.

LATTA Adj W
113 18 (1) *L2, 4 F2
Remarks: Unattended.

LAURENS-COUNTY 3 E
700 H23 (1) FSS: ANDERS
Remarks: P-line SW.

LAZY ACRES See ANDERSON

MACK LAMAR See CLIO

MANNING
MERCY AIR STRIP 7 S
135 21 (1) F2 FSS: CHARLEST

MARION-COUNTY 3 E
119 32 (1) L4 F2 FSS: FLOREN
Remarks: Fuel on call.

MERCY AIRSTRIP See MANNING

MONCKS CORNER MUNI 1 SW
70 30 (2) S3 F4 FSS: CHARLEST

MOORE'S See DARLINGTON

MT PLEASANT
REMLEY'S POINT 2 NW
20 18 (3) S5 F2 FSS: CHARLESTON (LC SH
Remarks: P-line NE, E, N, S.

MYRTLE BEACH See CRESCENT BEACH

NEWBERRY MUNI 3 NW
565 27 (2) L4 S3 F4 FSS: ANDERS
Remarks: P-line E.

NICHOLS Adj S
55 28 (1) S3 F2 FSS: FLOREN
Remarks: Unattended. 800' SW end soft sand.

O'NEAL FIELD See GREER

ORANGEBURG MUNI 2 S
194 H36 (1) BL4 S5 F4 U-1 FSS: FLOREN
Remarks: Rgt tfc E, S.

OVERTON FIELD See ANDREWS

OWENS FLD See COLUMBIA in Section IV-A

OXNERS See WHITMIRE

AIRPORT DIRECTORY

ENS-RECREATION PARK 2 S
74 22 (1) FSS: GREER
emarks: P-line W.

IAC
ERIMENTAL STA AIRSTRIP 1 W
45 20 (1) FSS: FLORENCE
emarks: P-line N.

EY'S POINT See MT PLEASANT

LAND MUNI 1 NW
3 H31 (1) L4 F4 FSS: SAVANNAH
emarks: P-line NE, ENE.

HILL MUNI 4 NW
6 H35 (1) BL4 S5 F4 U-1 FSS: HICKORY

See BENNETTSVILLE

ORGE
CHESTER CO 2 NE
0 17 (1) *L4 FSS: CHARLESTON
marks: Attended days.

TTHEWS 4 NE
5 26 (1) L4 FSS: FLORENCE

EPHENS Adj SE
22 (1) F2 FSS: CHARLESTON

ANBURG DOWNTOWN MEML See Section IV-A

RTON
RCH BRANCH 10 SE
28 (1) FSS: CHARLESTON

T ISLAND 6 SE
19 (1) FSS: CHARLESTON
marks: P-line SW.

RVILLE 3 NW
28 (1) F4 U-1 FSS: CHARLESTON
marks: P-line SW.

R MUNI *IFR* 4 N
H40 (1) BL4 S5 F4 U-1 FSS: FLORENCE
R ADV SHAW APP CON 119.7
marks: Rgt tfc rnwys 4 and 31.

ISVILLE
GINS 1 NE
29 (1) S1 F4 FSS: FLORENCE (LC MO 9-9573)

ON MUNI 1 E
35 (3)

ITY See BATESBURG

RS See KLINE

RBORO MUNI 2 NE
H58 (3) BL4 F4 FSS: CHARLESTON

WHITMIRE
OXNERS 4 SE
440 29 (1) S5 F2 FSS: ANDERSON

WILLIAMS FIELD See ALLENDALE

WILSON MEML See ISLE of PALMS

WINNSBORO 4 NW
530 32 (1) FSS: FLORENCE

WOODWARD FIELD See CAMDEN

YORK 2 N
768 26 (1) L4 F2 FSS: HICKORY
Remarks: P-line N and S. Unattended.

SOUTH DAKOTA

ABERDEEN MUNI *IFR* 3 E
1301 H58 (2) BL4, 6 S5 F4 U-1
FSS: ABERDEEN on Fld
Remarks: Attended on prior request after 9:00 PM. Rnwy 12 threshold displaced 670'.

BELLE FOURCHE
BUS FLD 1 NW
3042 29 (1) L4 S5 F4 U-1 FSS: RAPID CITY
Remarks: Soft - wet.

BIG BEND LANDING See FORT THOMPSON

BISON-PERKINS CO Adj SW
2782 26 (2) L4 F2
Remarks: Soft when wet.

BLACK HILLS See SPEARFISH

BOB WILEY FLD See WINNER

BOWDLE MUNI 1 SW
1963 23 (1) FSS: ABERDEEN
Remarks: Soft when wet. Unattended.

BRITTON MUNI 2 NE
1310 24 (3) BL4 F2 FSS: ABERDEEN
Remarks: Attended May thru Dec; prior req other months.

BROOKINGS MUNI 1 SW
1637 H40 (1) BL4 S5 F4 FSS: WATERTOWN

BUFFALO
HARDING CO 1 E
2890 31 (3) BL4 F2 FSS: RAPID CITY
Remarks: Unattended.

BUS FLD See BELLE FOURCHE

CAMP CROOK MUNI 1 NW
3100 40 (2) FSS: RAPID CITY
Remarks: P-line S & E.

CATRON RANCH 2 S
3150 35 (2) FSS: RAPID CITY

AIRPORT DIRECTORY

CANISTOTA
ORTMAN Adj SW
1550 26 (1) F2
Remarks: P-line N.

CANTON MUNI 2 E
1262 21 (2) FSS: HURON
Remarks: P-lines NW.

CATRON RCH See CAMP CROOK

CENTERVILLE
OVERGAARD 6 NE
1260 19 (1) F2
Remarks: P-line N.

CHAMBERLAIN MUNI 1 SE
1740 H24 (2) L4 S1 F4 FSS: PIERRE
Remarks: Unattended. P-line S.

CLARK
COUNTY 2 NE
1793 H28 (1) L4 F3 FSS: WATERTOWN
Remarks: Unattended.

CLIFF'S AERO SERVICE See PARKSTON

COLMAN
SIOUX VALLEY 1 E
1678 26 (1)

COOK'S See COTTONWOOD

COTTONWOOD
COOK'S 2 W
2456 40 (3) F2
Remarks: P-line S. All way turf field.

COUNTY See CLARK

CUSTER STATE PARK See FAIRBURN

DAVIDSON See VERMILLION

DEADWOOD-NEMO
PARADISE VALLEY 17 SE
4490 35 (1)

DEITER See REDFIELD

DELL RAPIDS
WEELBORG 1 S
1504 26 (2) F2

DUPREE MUNI 1 SW
2341 25 (1) FSS: PIERRE

EDGEMONT MUNI 1 SW
3608 42 (4) *L4 S1 F2 U-1 FSS: CHADRON

ESTELLINE MUNI Adj SW
1659 25 (1) L4 F2 FSS: WATERTOWN
Remarks: P-line N.

EUREKA MUNI 2 NW
1910 22 (3) S1 F2 FSS: ABERDE
Remarks: P-line E.

FAIRBURN
CUSTER STATE PARK 6 NW
4000 28 (1)
Remarks: Rgt tfc N.

FAITH MUNI Adj N
2572 23 (1) BL4 FSS: P.E.

FAULKTON MUNI 1 E
1569 24 (1) *L4 S3 F2 FSS: ABERDE
Remarks: P-line N. Unattended.

FLANDREAU MUNI 3 S
1680 26 (1) S1 FSS: HUR
Remarks: P-lines N, S, E. Unattended.

FLETCHER See RELIANCE

FORT THOMPSON
BIG BEND LANDING STRIP 1 SW
1472 45 (1) FSS: PIER
Remarks: Use strip only.

FOSS FLD See SIOUX FALLS, FOSS FLD in Section IV-A

GETTYSBURG MUNI 1 S
2055 27 (1) L4 F2 FSS: PIER
Remarks: Unattended.

GRAHAM FLD See NORTH SIOUX CITY

GREGORY MUNI 1 SE
2200 28 (1) L4 S1 F2 U-1 FSS: PIER

GROTON MUNI 5 N
1300 22 (1) FSS: ABERDE

HAHN'S See ROSHOLT

HARDING COUNTY See BUFFALO

HARROLD MUNI 1 NW
1780 22 (1) FSS: PIER
Remarks: P-line S.

HAYES Adj NE
1986 23 (1) FSS: PIER
Remarks: Soft when wet.

HERREID MUNI 1 NW
1725 22 (1) FSS: ABERDE

HIGHMORE MUNI 1 N
1850 27 (1) F2 FSS: PIER
Remarks: Unattended.

HOT SPRINGS MUNI 5 SE
3148 H45 (1) B*L4 S1 F4 U-1 FSS: CHEYE

AIRPORT DIRECTORY

RD MUNI 1 NW
570 31 (2) L4 FSS: HURON

-S MUNI See **HURON**

N
ES MUNI *IFR* 1 NW
287 H51 (2) B*L6 S5 F2, 4 U-1 FSS: HURON on Fld

CH
LIAMS RANCH 8 S
175 25 (1)

L MUNI Adj SW
398 24 (1) FSS. PIERRE
marks: Caution when wet.

KA MUNI 1 E
155 26 (2) L4 F3 FSS: PIERRE
emarks: Unattended.

LL MUNI 1 NW
155 26 (1)

ANDES MUNI 1 SW
166 26 (2) S1 F2 FSS: HURON
emarks: P-lines, N, NW. Unattended.

PRESTON MUNI Adj SW
125 24 (1) L4 F2 FSS: WATERTOWN
emarks: Unattended.

ON MUNI 3 SE
172 H45 (1) BL4 S5 F4 FSS. DICKINSON

DX
AIR SERVICE 4 SE
125 26 (2) L4 S1 F3 FSS: HURON

See RAPID CITY

ON 3 NE
188 22 (2) F2 FSS: HURON
marks: P-line NW. Attended on call

N MUNI 1 SE
193 25 (1) BL4 F3 FSS. CHADRON
marks: Unattended.

OSH MUNI 1 SE
151 24 (1) L4 F2
marks: Unattended.

I 1 E
150 25 (2) *L4 S1 F2
marks: P-line S. Soft when wet

NK MUNI 3 E
150 32 (2) L4 F4 FSS. WATERTOWN
marks: P-line NE. Lgts on request after 0700.

R MUNI 1 E
185 H28 (1) BL4 S5 F2 FSS: HURON
marks: P-line S.

MITCHELL MUNI 4 N
1302 H67 (2) BL4 F4 FSS: HURON

MOBRIDGE MUNI 1 NE
1715 H44 (2) BL4 S5 F4 FSS: PIERRE
Remarks: Attended days.

MURDO 1 SW
2300 22 (2) F2 FSS: PIERRE
Remarks: P-line E, NE.

NEWELL 2 N
2825 27 (1) L4 F2 FSS: RAPID CITY
Remarks: TV pole NW. P-line SE.

NORTH SIOUX CITY
GRAHAM FLD 1 N
1106 H24 (1) BL4 S5 F5 U-1
FSS: SIOUX CITY (LC 8-1060)
Remarks: Rgt tfc S, SE. P-line S, W. 5300' strip avbl.

ONIDA MUNI 2 W
1889 26 (1) F3 FSS: PIERRE
Remarks: P-lines N, NW, NE. Unattended.

OPAL
VIG RANCH 4 SW
2600 14 (2) F2

ORTMAN See **CANISTOTA**

OVERGAARD See **CENTERVILLE**

PARADISE VALLEY See **DEADWOOD-NEMO**

PARKER 1 NE 1340 25 (2)
Remarks: P-lines SE & SW.

PARKSTON
CLIFF'S AERO SERVICE 1 SE
1310 13 (1) *L4 S5 F2 FSS: HURON
Remarks: Short strip. Lgt acft only.
PHILIP *IFR* 3 E
2210 40 (3) BL2 S5 F4 FSS: PIERRE
Remarks: P-lines N, NE.

PIERRE MUNI *IFR* 3 NE
1742 H72 (3) BL4, 6 S5 F4, JP1 FSS: PIERRE on Fld

PLATTE MUNI 1 NE
1618 28 (2) F2 FSS: HURON
Remarks: Unattended. P-lines SE.

PRESHO MUNI 1 E
1800 21 (2) F2, 4
Remarks: Unattended.

RABENBERG See **SELBY**

RAPID CITY
LIEN 2 NW
3470 H28 (1) F3 FSS: RAPID CITY (LC FI 2-2280)

AIRPORT DIRECTORY

RAPID CITY MUNI *IFR* 8 SE
3181 H62 (2) BL6 S5 F4 U-1 VFR ADV: ELLSWORTH
APP CON 119.5 121.1T 122.5R
FSS: RAPID CITY on Fld
Remarks: Use rnwy 32 when calm wind.

REDFIELD
DEITER 5 E
1300 26 (4) F2 FSS: HURON
Remarks: P-lines N, S, NE.

REDFIELD INC 1 S
1300 35 (4) L4 S3 F4 FSS: HURON
Remarks: Unattended.

RELIANCE
FLETCHER 2 SE
1800 20 (3) FSS: PIERRE

ROSHOLT
HAHN'S 1 NE
1050 16 (2) F2
Remarks: Use skis in winter.

SELBY
RABENBERG 2 S
1950 32 S1 F2 FSS: ABERDEEN
Remarks: Unattended.

SIOUX CITY GRAHAM FLD See NORTH SIOUX CITY

SIOUX FALLS FOSS FLD See Section IV-A

SIOUX VALLEY See COLMAN

SISSETON MUNI 3 E
1170 30 (3) BL4 F2 FSS: WATERTOWN
Remarks: Unattended.

SKIE AIR SERVICE See LENNOX

SPEARFISH
BLACK HILLS 3 E
3929 51 (4) B S5 F4 FSS: RAPID CITY

SPRINGFIELD MUNI 1 N
1319 28 (2)

TIMBER LAKE MUNI 1 SW
2162 26 (3) F2 FSS: PIERRE
Remarks: Unattended. P-line E.

VERMILLION
DAVIDSON 1 S
1145 H25 (2) BL4 S3 F4 U-1 FSS: SIOUX CITY

VIG RANCH See OPAL

WAGNER MUNI 1 S
1464 32 (3) BL4 S3 F4 FSS: HURON
Remarks: Unmrkd p-line on 140' twrs S.

WALL MUNI 2 W
2830 32 (3) F2 FSS: RAPID C
Remarks: P-line E. Unattended.

WASTA MUNI 1 N
2612 24 (1) FSS: RAPID C

WATERTOWN MUNI *IFR* 2 NW
1747 H69 (2) BL4, 6, 11 S5 F4
FSS: WATERTOWN
Remarks: Use rnwys. REIL rnwy 17.

WEBSTER MUNI 2 S
1848 28 (2) B F2 FSS: WATERTO
Remarks: Unattended.

WEELBORG See DELL RAPIDS

WHITE RIVER MUNI 1 S
2151 30 (1) BL4 FSS: PIER

WILLIAMS RANCH See IPSWICH

WINNER
BOB WILEY FLD 1 NE
2038 28 (4) BL4 S5 F4 FSS: PIER
Remarks: P-line S.

YANKTON MUNI 2 N
1282 H40 (2) BL4 S5 F4 U-1 FSS: SIOUX C
Remarks: Twr 3 E.

TENNESSEE

ABERNATHY FLD See PULASKI

ALLARDT
FENTRESS CO 1 SE
1700 23 (1) S1 F2 FSS: CROSS
Remarks: P-line N.

ANDERSON See TOONE

ASHLAND CITY
CHEATHAM COUNTY Adj W
401 25 (1)
Remarks: Deep ditch N end.

ATHENS
McMINN COUNTY 3 SE
835 H35 (1) BL4 S5 F4 U-1 FSS: CROSS

BAKER FLD See HOHENWALD

BOMAR FLD See SHELBYVILLE

BRADFORD 2 SW
493 17 (1)
Remarks: Unattended.

BRISTOL TRI-CITY See Section IV-A

BROWNING FLYING SERVICE See MILAN

AIRPORT DIRECTORY

NSVILLE
ORNTON 5 NE
:50 20 (1) FSS: JACKSON
Remarks: Unattended.

BELL See COPPERHILL

BELL COUNTY See JACKSBORO

Y See MAYLAND

ERVILLE MUNI 3 N
50 H30 (1) BL2, 4 S1 F4 FSS: NASHVILLE
emarks: Unattended.

TANOOGA LOVELL FLD See Section IV-A

THAM COUNTY See ASHLAND CITY

KSVILLE
TLAW FLD 6 NW
48 H41 (2) BL4 S3 F4 FSS: NASHVILLE
emarks: Twr 300' E. Rgt tfc rnwy 5.

ELAND
RDWICK FLD 4 NE
74 H33 (1) BL4 F4 U-1 FSS: CROSSVILLE

TON
SELL FLD (CLIFTON) 1 E
32 H30 (1) BL4 S1 F4 FSS: MUSCLE SHOALS
emarks: Unattended.

MBIA
ITER 6 NE
10 20 (1) *L4 S3 F4 U-1
emarks: P-line SW.

MBIA-MT PLEASANT
RY CO 2 NE
72 H35 (1) BL4 S1 F4 FSS: NASHVILLE
emarks: P-line NW.

EVILLE
NAM CO 1 N
45 H38 (1) BL4 S5 F4 U-1 FSS: CROSSVILLE

ERHILL
PBELL 2 NE
93 25 (1)

ELIA FORT ARPK See NASHVILLE

GTON MUNI 3 NE
4 H30 (1) BL4 F4 U-1 FSS: DYERSBURG

KY RANCH See KNOXVILLE

VILLE
SSVILLE MEML *IFR* 3 W
81 H54 (1) BL4 S5 F4 FSS: CROSSVILLE on Fld
marks: Attended days.

LAKE TANSI 4 SW
1950 36 (1) FSS: CROSSVILLE (LC 484-6711)

CUMBERLAND FLD See NASHVILLE

DAYTON
MARK ANTON 3 E
715 H35 (1) BL4 FSS: CROSSVILLE

SHAVER FLD 5 E
700 18 (2) S1 F2 U-1 FSS: CROSSVILLE

DICKSON MUNI 3 NW
891 H35 (1)

DOWNTOWN See MEMPHIS

DYERSBURG MUNI *IFR* 2 S
337 H40 (2) BL4 F4 FSS: DYERSBURG on Fld

ELLINGTON See LEWISBURG

EVERETT-STEWART FLD See UNION CITY

FAYETTEVILLE
FAYETTEVILLE MUNI 6 S
983 H40 (1) BL4 F4 U-1 FSS: MUSCLE SHOALS

WILKS FLYING SERVICE 2 N
697 25/18-36 (1) *L2 S3 F4
FSS: MUSCLE SHOALS (LC 383-6541)

FENTRESS CO See ALLARDT

FOWLER See ROCKWOOD

FRANKLIN CO See SEWANEE

FRANKLIN-WILKINS See LEXINGTON

GALLATIN MUNI 2 W
584 H35 (1)

GILL-DOVE See MARTIN

GREENVILLE
TUSCULUM FLD 4 E
1477 H27 (1) BL4 S1 F4 FSS: TRI-CITY

HARDWICK FLD See CLEVELAND

HASSELL FLD See CLIFTON

HENRY CO See PARIS

HOHENWALD
BAKER FLD 2 W
973 23 (1) FSS: NASHVILLE

HOUSTON CO See McKINNON

HUMBOLT MUNI 3 SE
420 H40 (1) BL4 S5 F4 U-1 FSS: JACKSON

AIRPORT DIRECTORY

HUNTER See COLUMBIA

HUNTINGDON 1 SW
380 33 (1) L4 FSS: JACKSON
Remarks: P-line S.

ISLAND See KNOXVILLE

JACKSBORO
CAMPBELL COUNTY 1 SE
1160 17 (1) S1 F2
Remarks: Unattended.

JACKSON
McKELLAR FLD *IFR* 4 W
432 H52 (2) BL4 S5 F4 FSS: JACKSON on Fld

JOHNSON CITY
JOHNSON CITY 3 NE
1555 H30 (1) S3 F4 U-1 FSS: TRI-CITY (LC WA 6-4701)

TRI-CITY See BRISTOL, TRI-CITY in Section IV-A

KINGSPORT, TRI-CITY See BRISTOL, TRI-CITY in Section IV-A

KNOXVILLE
COX SKY RANCH 5 SW
822 21 (1) F2 U-1 FSS: KNOXVILLE (LC 577-0795)
Remarks: Hazardous, use at own risk.

ISLAND 3 E
832 H35 (1) L4 S5 F4 U-1
FSS: KNOXVILLE (LC 577-0795)
Remarks: Rgt tfc W. Daylight operations only.

McGHEE TYSON See Section IV-A

LAKE TANSI See CROSSVILLE

LAWRENCEBURG
LAWRENCEBURG MUNI 3 E
928 H29 (1) BL4 S5 F4 FSS: MUSCLE SHOALS

ROBINSON 3 NE
925 18 (2) FSS: MUSCLE SHOALS
Remarks: P-line N.

LEBANON MUNI 2 SW
571 H35 (1) BL4 S3 F4 FSS: NASHVILLE
Remarks: Surround by fence.

LEWISBURG
ELLINGTON 3 N
700 H40 (1) BL4 U-1 FSS: NASHVILLE

LEXINGTON
FRANKLIN-WILKINS *IFR* 1 E
517 H36 (1) BL4 S5 F4 U-1 FSS: JACKSON

LINDEN
PERRY CO 3 SW
740 H35 (1) BL4 FSS: JACKSON
Remarks: Unattended.

LIVINGSTON MUNI 1 NE
1370 H31 (1) BL4 F2 FSS: CROSSV
Remarks: Fuel on call to City Police.

LOVELL FLD See CHATTANOOGA in Section IV-A

MARK ANTON See DAYTON

MARTIN
GILL-DOVE 3 S
425 27 (1) FSS: DYERSB

MAURY CO See COLUMBIA-MT PLEASANT

MAURY COUNTY See MT PLEASANT

MAYLAND
CAREY 2 NE
1900 15 (1)
Remarks: Attended dalgt hrs.

McGHEE-TYSON See KNOXVILLE in Section IV-A

McKELLAR FLD See JACKSON

McKINNON
HOUSTON CO Adj W
370 H30 (1) FSS: JACK

McMINN COUNTY See ATHENS

McMINNVILLE
WARREN COUNTY 3 NW
1027 H37 (1) BL4 S5 F4 FSS: CROSS

MEMPHIS
DESOTA ARPK See HORN LAKE, MISS

MEMPHIS-DOWNTOWN Adj W
222 H31 (1) L4 F4 U-1 FSS: MEMPHIS (LC 358-3
Remarks: Rnwy lgts operg dusk - 11 pm.

MEMPHIS METROPOLITAN See Section IV-A

WILSON FLD 8 SE
359 27 (3) S5 F2 FSS: MEMPHIS (LC 398-5

MILAN
BROWNING FLYING SERVICE 3 NE
378 26 (1) *L4 FSS: JACK

MILAN MUNI 2 E
410 37 (1) FSS: JACK
Remarks: Soft when wet.

MILLINGTON MUNI 4 SW
241 H16 (4) *L4 S5 F4 U-1
FSS: MEMPHIS (LC 358-3
Remarks: P-line S.

MOORES LANDING See SPARTA

MOORE-MURRILL See MORRISTOWN

AIRPORT DIRECTORY

RRISTOWN
OORE-MURRILL 4 SW
1299 H40 (1) BL4 S1 F4 U-1 FSS: KNOXVILLE

PLEASANT
IAURY COUNTY 2 NE
677 H35 (1) S1 FSS: NASHVILLE
Remarks: P-line NW. Unattended.

RFREESBORO MUNI 2 N
615 H37 (1) BL4 S5 F4 U-1 FSS: NASHVILLE

HVILLE
ORNELIA FORT ARPK 6 NE
420 30 (2) *L4 S5 F4 U-1
FSS: NASHVILLE (LC AL 4-6552 3)
Remarks: Rgt tfc N, NW, NE.

UMBERLAND FLD 3 NW
404 H16 (1) S5 F4 U-1
FSS: NASHVILLE (LC AL 4-6552 3)
Remarks: 3200' strip avail.

ASHVILLE METROPOLITAN See Section IV-A

THERN FLD See TULLAHOMA

RIDGE ARPK 5 W
788 26 (1) S1 F2 FSS: KNOXVILLE
Remarks: P-line E.

IDA
COTT MUNI 4 SW
1538 H35 (1) BL4 S1 F4 U-1 FSS: CROSSVILLE
Remarks: Unattended.

LAW FLD See CLARKSVILLE

IS
ENRY CO 3 NW
571 H38 (2) BL4 S5 F4 U-1 FSS: JACKSON

SONS
COTT Adj SW
517 H30 (1) BL4 S1 FSS: JACKSON
Remarks: Unattended.

RY CO See LINDEN

ELL 1 NE
992 H20 (1) S5 F4 U-1 FSS: KNOXVILLE (LC 577-0795)
Remarks: P-lines SW.

ASKI
BERNATHY FLD 3 SW
665 H35 (1) BL4 F4 U-1 FSS: MUSCLE SHOALS
Remarks: P-line E.

NAM CO See COOKEVILLE

NSON See LAWRENCEBURG

ROCKWOOD
FOWLER 3 N
1664 H44 (1) BL4 F4 FSS: CROSSVILLE

ROGERSVILLE STRIPS 4 SW
1150 18 (1)
Remarks: P-line opch rnwy 7.

SAVANNAH MUNI 3 SE
450 H35 (1) BL4 S5 F4 U-1 FSS: MUSCLE SHOALS

SCOTT See PARSONS

SCOTT MUNI See ONEIDA

SEWANEE
FRANKLIN CO 1 NE
1950 H28 (1) BL4 S1 F4 U-1 FSS: CROSSVILLE

SHAVER FLD See DAYTON

SHELBYVILLE
BOMAR FLD 4 N
802 H50 (1) BL4 S5 F4 U-1 FSS: NASHVILLE
Remarks: Turf soft when wet.

SPARTA
MOORES LANDING 5 SE
1020 22 (1)
Remarks: Pole opch rnwy 28.

THORNTON See BROWNSVILLE

TOONE
ANDERSON 4 NW
392 10 (1)

TRI-CITY See BRISTOL in Section IV-A

TULLAHOMA
NORTHERN FLD 2 NW
1081 H50 (3) BL4 S3 F4 U-1 FSS: NASHVILLE
Remarks: Unlgtd trees all opchs of rnwys.

TUSCULUM FLD See GREENVILLE

UNION CITY
EVERETT-STWEART FLD 4 SE
340 H40 (1) BL4 S5 U-1 FSS: DYERSBURG

WARREN COUNTY See McMINNVILLE

WILSON FLD See MEMPHIS

TEXAS

ABERNATHY MUNI 4 E
3327 H50 (2) S5 F4 FSS: LUBBOCK

ABILENE
ABILENE MUNI See Section IV-A

AIRPORT DIRECTORY

BUTTERFIELD TRAIL 5 NW
1670 H25 (1) L4 S5 F4 U-1
FSS: ABILENE (LC OR4-6915)
Remarks: P-line NW. Rnwy 7-25 ruf, emgcy only.

ADDICKS
JORGENSEN 3 W
105 26 (1) *L4
Remarks: P-line NW.

ADDISON See DALLAS, ADDISON in Section IV-A

AIRMAN'S FLD See HOUSTON

ALBANY
TAYLOR 1 N
1429 H30 (1) S1 F4 FSS: ABILENE
Remarks: S blkd.

ALICE INTL *IFR* 3 SE
178 H47 (3) BL4 S5 F4 U-1 FSS: ALICE on Fld

ALLISON RANCH See CORSICANA

ALLISON-SONORA See SONORA

ALPINE
STARNS FLD 2 NW
4490 H39 (1) *L4 S5 F4 FSS: WINK
Remarks: P-line N, NE. Fld surd by mtns.

ALVIN ARPK 2 W
47 15 (1) F2 FSS: GALVESTON
Remarks: 3' hi fence NE end. Twr S.

AMARILLO
AMARILLO AFB/MUNI See Section IV-A

PALO DURO 3 S
3639 H25 (2) S3 F2 U-1
FSS: AMARILLO (LC DI 9-1608)
Remarks: Fence SW.

TRADEWIND *IFR* 2 SE
3636 H40 (2) BL4 S5 F4 U-1
FSS: AMARILLO (LC DI 9-1608)
VFR ADV For APP CON, DEP CON see AMARILLO/AFB-MUNI in Section IV-A
Remarks: Rgt tfc rnwy 17 & 23.

ANAHUAC
CHAMBERS CO 1 E
21 24 (2) L1 F2 FSS: HOUSTON

ANDRAU ARPK See HOUSTON

ANDREWS COUNTY 1 E
3176 H47 (3) L4 S5 F4 U-1 FSS: MIDLAND
Remarks: Flood lgts around area. Use rnwys. Displaced threshold 765 N rnwy 33.

ANGELINA COUNTY See LUFKIN

ANGLETON
BAILES 2 E
25 35 (1) S3 F2 U-1 FSS: GALVESTON
Remarks: S blkd. P-line N.

ARANSAS PASS 1 S
4 H20 (1) FSS: ALICE

ARANSAS COUNTY See ROCKPORT

ARLEDGE FIELD See STAMFORD

ARLEDGE RANCH See RED SPRINGS

ARLINGTON
ARLINGTON MUNI *IFR* 4 S
630 H40 (1) L4 S5 F4
FSS: FORT WORTH (LC MA4-8444
VFR ADV For APP CON, DEP CON See FORT WORTH GREATER SOUTHWEST INTL in Section IV-A

LUCAS 3 SW
611 21 (3) S5 FSS: FORT WORTH (LC MA4-8444
Remarks: W, NW blkd. Wet.

PYLON 4 SW
610 18 (1) L4 S5 F2 FSS: FORT WORTH (LC MA4-8444
Remarks: lgts avbl thru FTW FSS or Meacham Fld.

ATHENS
JONES MUNI 3 SE
455 H37 (1) L4 F4 FSS: TYLER

ATLANTA MUNI 2 SW
276 21 (2) FSS: TEXARKANA
Remarks: Unattended. Soft when wet.

ATWOOD See AZLE

AUSTIN
LAKEWAY ARPK 14 W
940 H30 (1) U-1 FSS: AUSTIN
Remarks: P-line S.

MUELLER MUNI See Section IV-A

TIMS ARPK 9 NE
750 H28 (1) S5 F4 FSS: AUSTIN
Remarks: P-line S.

AUX NO 1 TO MOORE See EDINBURG

AZLE
ATWOOD 3 NW
820 28 (3) S1 F2
Remarks: N, NW blkd.

FLYING OAKS 4 S
720 28 (1) S1
Remarks: P-line S.

BAILES See ANGLETON

AIRPORT DIRECTORY

KERSFIELD
WILSON RANCH 10 E
2680 30 (2)

-LL See VICTORIA

LLINGER
BRUCE FLD 4 SW
1731 H23 (4) *L4 F4 FSS: SAN ANGELO
Remarks: 2800' strip. All overruns very soft when wet. Attended irreg.

NDERA
MARYAN DUDE RANCH 1 W
1247 22 (1)

STROP
CROSS RANCH 1 SW
372 31 (2) FSS: AUSTIN
Remarks: P-line N.

CITY 1 SE
55 25 (3) F2 FSS: PALACIOS
Remarks: Unattended.

TOWN
UMPHREY 3 NE
35 33 (2) L4 S5 F2 FSS: HOUSTON
Remarks: E, W, NW, NE. Fence SW. Soft-wet.

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ILLIE MEML 3 N
26 24 (2) *L4 S3 F2 U-1 FSS: HOUSTON
Remarks: P-line SE.

R GRACEY RANCH See PEARSALL

UMONT
EAUMONT MUNI 6 W
31 H34 (3) B S5 F4 U-1
FSS: BEAUMONT-PORT ARTHUR (LC RA 2-0288)
Remarks: Bcn - sunset - 2400.

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ORT ARTHUR/JEFFERSON CO See Section IV-A

VILLE
ASE (NAAS) FLD (N) 4 SE
186 H80 (3) BL4, 6, 7 FSS: ALICE
TPA Conventional tfc patn 700'; jet tfc patn 1200'.
Remarks: Beeville, Chase (NAAS) Fld (N)-Open to civil acft; clsd to acft less than 2600 lbs GWT. No fuel or servicing; FEE; limited parking facils; hvy jet trng tfc. Ctl twr freq 142.74, 134.1, 126.2, 121.5 mc. Arresting gear wire two inches above duty rnwy 1500' from roll out end on all rnwys and midfld of rnwys 17-35 and 13R-31L.

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RAYLAND 2 NW
290 25 (2) S3 F4 U-1 FSS: ALICE
Remarks: SE blkd. P-line E, NE

LVILLE
RAWUNDER FLD Adj SE
295 H24 (1) L4 F4 FSS: COLLEGE STATION
Remarks: Rolling. TV twrs N, NW; p-line W; use strips. Rgt tfc N.

BELTON 2 SW
674 21 (1) S3 F2 FSS: WACO
Remarks: P-line NE.

BENGER ARPK See FRIONA

BENHAM RANCH See WAELDER

BERGMANN FLD See BOERNE

BERTRAM
VERNON PRICE 2 NE
1125 20 (1)

BIG LAKE MUNI Adj NW
2700 H40 (1) L4 F4 FSS: SAN ANGELO
Remarks: P-line SE, E. Unattended.

BIG SPRING
HAMILTON FLD 1 N
2517 H28 (1) S3 F4 FSS: MIDLAND
Remarks: P-line N. Irregularly attended.

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HOWARD CO *IFR* 3 NE
2563 H55 (2) BL4 S5 F4 U-1 FSS: MIDLAND
VFR ADV WEBB APP CON; 126.2, 122.7R
Remarks: Rgt tfc rnwy 24 & 34.

BISHOP MUNI 3 NE
60 35 (1) FSS: ALICE
Remarks: Soft when wet.

BOERNE
BERGMANN FLD 3 NW
1564 20 (1)

BONHAM
JONES FLD 2 N
616 H30 (1) F4 FSS: DALLAS
Remarks: P-line E.

BOOKER 1 SE
2830 39 (1) L4 F4
Remarks: P-line N, NE; soft-wet.

BORGER
HUTCHINSON CO *IFR* 2 N
3053 H41 (2) BL4 S5 F4 U-1
FSS: AMARILLO (LC BR 4-3341)
VFR ADV For APP CON, DEP CON See AMARILLO/AFB-MUNI in Section IV-A

BOWIE MEML ARPK See BROWNWOOD

BRACKETTVILLE
FT CLARK RANCH 2 SW
1105 53 (3) *L4 S1 F4 U-1 FSS: COTULLA
Remarks: P-line N.

BRADY
CURTIS FLD 3 NE
1830 H40 (1) BL4 F4 FSS: JUNCTION

AIRPORT DIRECTORY

BRECKENRIDGE
STEPHENS CO 2 S
1282 H38 (3) BL4 S5 F4 U-1 FSS: MINERAL WELLS

BREMOND 1 SW
460 22 (1) FSS: COLLEGE STATION

BRENHAM MUNI 1 SE
328 32 (1) *L4 S3 F4 FSS: COLLEGE STATION

BRIDGEPORT MUNI *IFR* 2 S
971 21 (3) F2
Remarks: Make no low apchs, p-lines along all apchs.

BROOKE COUNTY See FULFURRIAS

BROOKSHIRE
MILESKA 6 NW
180 20 (1)
Remarks: P-lines S.

BROWN See ORANGE

BROWNFIELD
TERRY CO 4 E
3314 H38 (2) L4 S5 F4 U-1 FSS: LUBBOCK
Remarks: Lgts dusk - 2230.

BROWNSVILLE
MAULDIN FLD 4 NW
22 28 (2) S5 F2 FSS: BROWNSVILLE (LC LI 6-6421)
Remarks: P-lines E, NE, W; use strips; soft-wet. Cattle on fld.

RIO GRANDE VALLEY INTL See Section IV-A

BROWNWOOD
BOWIE MEML ARPK 2 S
1400 26 (1) FSS: ABILENE

BROWNWOOD MUNI *IFR* 5 NE
1391 H50 (2) BL4 S5 F4 U-1 FSS: ABILENE

BRUCE FLD See BALLINGER

BRYAN
COULTER FLD 3 NE
357 26 (3) BL4 S3 F2, 4
FSS: COLLEGE STATION (LC VI 6-8784/5)
Remarks: Lines W, NW.

VARISCO 9 W
245 24 (1) F2 FSS: COLLEGE STATION
Remarks: P-line W.

BURCH FIELD See SNOOK

BURKE FLYING SERVICE See RIO HONDO

BURNET MUNI 1 SW
1250 H39 (1) BL4 S1 F4 U-1 FSS: AUSTIN
Remarks: Rgt tfc rnwy 6 & 36.

BUTTERFIELD TRAIL See ABILENE

BUZZ FIELD See ROARING SPRINGS

CADDO MILLS MUNI 5 W
540 H40 (2)
Remarks: Fence N and NW. Drag races Sundays N/S strip.

CALAWAY See GANADO

CAMERON MUNI ARPK 1 N
402 31 (1) S1 F2 FSS: COLLEGE STATION

CAMERON COUNTY See PORT ISABEL

CAMP'S RANCH See SAN GABRIEL

CANADIAN
HEMPHILL CO 1 SW
2395 35 (2) L4 S1 F3 FSS: GAGE
Remarks: RR tank N; bldgs S.

CANDELARIA 2 N
2950 22 (1) FSS: MARFA
Remarks: Mountains N, NE, SE, E.

CARRIZO SPGS
DIMMIT CO 2 E
612 H36 (1) F2 FSS: COTULLA
Remarks: P-line apch rnwy 8.

CARTHAGE
PANOLA CO 3 E
300 H38 (1) FSS: GREGG COUNTY
Remarks: P-line S.

CASTLEBERRY RANCH See ROMERO

CASTROVILLE MUNI 2 SE
772 H50 (1) S3 F4 FSS: SAN ANTONIO
Remarks: Fence NW.

CENTER MUNI 3 NE
345 H24 (1) L4 F4 U-1 FSS: LUFKIN
Remarks: P-line S. Unattended.

CHAMBERS CO See ANAHUAC

CHASE (NAAS) FLD (N) See BEEVILLE

CHEROKEE CO See JACKSONVILLE

CHILDRESS MUNI *IFR* 4 W
1952 H60 (4) BL4 S3 F4 U-1 FSS: CHILDRESS on FA

CIRCLE R SKY RANCH See MEDINA

CISCO MUNI 3 NW
1612 28 (4) F4 FSS: MINERAL WELLS
Remarks: P-line N.

CITY-COUNTY See PADUCAH

CLARENDON MUNI 2 SE
2840 23 (1) FSS: AMARILLO
Remarks: Windmill E. Downhill grade N.

AIRPORT DIRECTORY

ARK (MUNI) See **STEPHENVILLE**

ARKSVILLE
RISSELL Adj W
540 21 (1) S3 F2 U-1 FSS: TEXARKANA
Remarks: Bldgs & P-lines S. Unattended.

AUDE Adj S
3397 37 (2) FSS: AMARILLO
Remarks: P-line S.

BURNE MUNI 3 W
856 H30 (1) BL4 S5 F4 FSS: FORT WORTH

VER FLD See **HOUSTON**

HRAN COUNTY See **MORTON**

E RANCH See **STERLING CITY**

EMAN MUNI 1 NE
1697 H39 (1) BL4 S5 F4 U-1 FSS: ABILENE
Remarks: P-line N.

LEGE STATION
ASTERWOOD FLD See Section IV-A

LIER See **HOUSTON**

ORADO CITY
OLORADO CITY 3 NE
2168 30 (1) F2 FSS: MIDLAND
Remarks: Unattended.

ARRELL FISHING CAMP 6 S
2130 33 (1) FSS: MIDLAND
Remarks: P-line S.

UMBUS 2 NW
205 H27 (2) L4 F4 FSS: HOUSTON
Remarks: P-lines N and NW. Unattended.

ANCHE
IDLEY FLD 3 SW
1600 25 (4) FSS: MINERAL WELLS
Remarks: Unattended. P-line N.

FORT
GENHUETT FLD 1 NE
1490 22 (2)
Remarks: Unattended.

MERCE MUNI 3 N
548 24 (1) FSS: DALLAS
Remarks: P-line S, SE, SW. Ruf S side.

LEN 1 E
3800 58 (2) FSS: DALHART
Remarks: Do not use immediately after rain.

ROE
NTGOMERY CO 3 NE
236 H46 (3) S3 F4 U-1 FSS: HOUSTON

CORNUDAS
MAYFIELD RANCH 7 N
4575 41 (3)

CORPUS CHRISTI
CORPUS CHRISTI INTL See Section IV-A

CUDDIHY FLD 7 SW
39 H50 (1) BL4 S5 F2, 4 U-1
TPA 800'
FSS: ALICE (LC TU 4-5712)
VFR ADV For APP CON, DEP CON see CORPUS CHRISTI/ INTL in Section IV-A.
Remarks: Private. Rgt tfc rnwy 13, use rnwy 13-31 only. No turns will be made inside the arpt bndry. First turn shall be made in level flight at 400'. CTC CRP twr before taxing into active rnwy. Ctc CRP twr before entering Corpus Christi Intl Arpt area. Rules must be strictly adhered to as tfc at fld and CRP are in close proximity.

CORSICANA
ALLISON RANCH 3 NW
410 H30 (2) F4 U-1 FSS: DALLAS
Remarks: P-line SW.

CORSICANA MUNI 5 SE
440 H34 (1) BL4 S5 F4 U-1 FSS: DALLAS
Remarks: P-line NE.

CORSICANA "75" 2 N
480 H20 (1) S2 F2 FSS: DALLAS
Remarks: P-line N. Rdo twr SE. Unattended.

COTTON CENTER
STARNES 7 S
3500 28 (1) U-1 FSS: LUBBOCK
Remarks: P-line W.

COTTON GIN AIRSTRIP See **DELL CITY**

COTULLA MUNI *IFR* 2 NE
471 41 (2) BL4 FSS: COTULLA on Fld

COULTER FLD See **BRYAN**

COUNTRY CLUB See **GATESVILLE**

COX See **PARIS**

CRANE COUNTY 2 N
2580 40 (3) S1 FSS: MIDLAND
Remarks: P-lines W, S. Unattended.

CROCKETT
HOUSTON CO 3 E
350 H39 (1) U-1 FSS: LUFKIN
Remarks: Displaced thresholds: Rnwy 1, 100' N; rnwy 19, 175' S.

CROSBYTON
PAULDER 1 E
3017 H26 (1) F4 FSS: LUBBOCK
Remarks: Low P-line N. Use rnwy. 3900' strip avbl.

AIRPORT DIRECTORY

CROSS PLAINS
SAM EAKIN 3 SE
1700 15 (1)

CROWELL
FOARD CO 1 E
1479 H21 (1) FSS: CHILDRESS
Remarks: P-line N.

CRYSTAL CITY MUNI 1 NE
610 H35 (1) BL4 S5 F4 U-1 FSS: COTULLA

CUDDIHY FLD See CORPUS CHRISTI

CUERO MUNI 1 SE
210 H28 (1) L4 S5 FSS: PALACIOS
Remarks: Unattended.

CULBERSON COUNTY See VAN HORN

CURTIS FLD See BRADY

CYPRESS
WEISER ARPK 3 SE
139 38 (3) *L4 S5 F4 FSS: HOUSTON
Remarks: P-line SE. 100 ft. on W end not lgtd.

CYPRESS RIVER See JEFFERSON

DALHART MUNI *IFR* 3 SW
3989 H90 (3) BL4 S5 F4 FSS: DALHART on Fld

DALLAS
ADDISON See Section IV-A

DALLAS GARLAND *IFR* 9 NE
614 H34 (2) L4 S5 F4 U-1
FSS: DALLAS (LC RI 9-3502)
VFR ADV: For APP CON DEP CON See DALLAS/LOVE FLD in Section IV-A

HIGHLAND PARK 8 N
573 H24 (1) S5 F4 U-1 FSS: DALLAS (LC RI 9-3502)
Remarks: Use rnwys, txwys only.

HI-WAY 77 9 S
665 40 (5) S5 FSS: DALLAS (LC RI 9-3502)
Remarks: P-lines SE, W.

LOVE FLD See Section IV-A

PARK CITIES 9 NW
483 H17 (1) L4 S5 F4 U-1
FSS: DALLAS (LC RI 9-3502)
Remarks: P-line NW. Rgt tfc rnwys 13 and 17.

RED BIRD See Section IV-A

WHITE ROCK 6 NE
543 H21 (1) S5 F4 U-1 FSS: DALLAS (LC RI 9-3502)

DEATON FLD See DRYDEN

DECATUR MUNI 2 N
1059 28 (3) B S1 F4 FSS: FORT WORTH
Remarks: P-lines E, SW, W. Bcn operg on request.

DELL CITY
COTTON GIN AIRSTRIP Adj S
3700 26 (1) FSS: EL PASO
Remarks: P-line E.

McCONNELL FARM 2 N
3710 23 (1) F2 FSS: EL PASO
Remarks: TV ant W.

R PAULEY FARM Adj W
3713 36 (1) FSS: EL PASO
Remarks: P-lines E, W.

DEL RENTZEL See NACOGDOCHES

DEL RIO
DEL RIO INTL 1 W ACE
1017 H35 (1) BL4 S5 F4 U-1
FSS: COTULLA (LC PR 5-3637
Remarks: P-line N. Rgt tfc strip 13 & 17.

TOWNSEND RANCH 22 SE
960 24 (1) FSS: COTULLA

DENSION
GRANDPAPPY POINT 7 NW
710 14 (1)

DENTON MUNI 3 W
652 H41 (1) L4 S3 F4 FSS: FORT WORTH
Remarks: P-lines E, SE.

DIBALL SOUTHERN PINE LUMBER CO 1 NE
220 36 (1) F4 FSS: LUFKIN (LC NE 4-3544

DILLEY AIRSTRIP 1 NW
550 26 (1)
Remarks: P-line SE.

DIMMITT
DIMMITT-JAYCEE 2 N
3840 25 (3) L4 F4 FSS: AMARILLO
Remarks: P-lines E, NE. Fence S.

DIMMIT CO See CARRIZO SPGS.

DONNA
WOODS 1 E
88 25 (3) F2 FSS: McALLEN
Remarks: P-line W, S.

DRAUGHON-MILLER See TEMPLE

DRYDEN
DEATON FLD Adj W
2321 25 (2)
Remarks: P-line NW, hills SE, fence W.

DRYDEN 5 W
2323 H45 (2) BL2

AIRPORT DIRECTORY

ILLIN JAYCEE COMMUNITY ARPK 2 SE
1475 26 (1)
Remarks: P-line N.

LEY FLD See **COMANCHE**

AS MUNI 2 W
3700 H44 (2) L4 S5 F4 U-1 FSS: DALHART

LE LAKE 1 NE
185 H32 (2) BL F4 FSS: HOUSTON
Remarks: P-line NW. Unattended.

LE PASS MUNI 1 E AOE
774 H32 (1) BL4 S5 F4 U-1 FSS: COTULLA

LE ROCK RANCH See **WIMBERLEY**

TERWOOD FLD See **COLLEGE STATION, EASTERWOOD FLD**
Section IV-A

TLAND MUNI 1 N
1468 32 (4) L4 F4 FSS: MINERAL WELLS
Remarks: Unattended.

T SIDE See **LONGVIEW**

OR COUNTY See **ODESSA**

OUCH
LKER Adj NE
70 31 (1) S5 F2 U-1 FSS: McALLEN
Remarks: P-line NW.

IBURG
INBURG MUNI 2 W
90 H28 (3) BL4 S3 F4 U-1
FSS: McALLEN (LC MU 6-7211)
Remarks: P-line E, SE.

ORE AUX NO 1 9 N
10 H30 (1) FSS: McALLEN

AMPO ARPK 5 NW
28 H24 (1) S5 F4 U-1 FSS: PALACIOS

ORADO MUNI Adj W
4441 H31 (1) L4 S1 F2 FSS: SAN ANGELO
Remarks: P-line S. Unattended.

CTRA 3 NW
4229 29 (3) FSS: WICHITA FALLS
Remarks: P-line S.

N
EWITT 4 SE
4195 26 (1) FSS: AUSTIN
Remarks: Unattended.

S See **SAN LEON**

'ASO
. PASO INTL See **Section IV-A**

SUNLAND ARPK 6 W
3736 H37 (1) L4 S5 F4 FSS: EL PASO (LC PR 8-4447)
Remarks: Rgt tfc rnwy 28.

ESPERANZA
McCOY Adj NE
3500 17 (1)
Remarks: P-line S. Unattended.

EULESS
HURST FLYER'S FLD 2 W
600 13 (1) S3
Remarks: P-line S. Unattended.

EVANSTON See **KENEDY**

FABENS 1 NE
3621 H38 (3) S5 F4 U-1 FSS: EL PASO
Remarks: P-line SE.

FALFURRIAS
BROOKE COUNTY 2 SE
115 H33 (1) BL4 F4 FSS: ALICE
Remarks: P-line E. Ruf.

FLATONIA MUNI 1 NE
460 H26 (1) F2
Remarks: Attended by phone.

FLEITMAN FIELD See **MEUNSTER**

FLOYDADA MUNI 1 NW
3187 27 (4) F2 FSS: LUBBOCK
Remarks: P-line W, SSW, NNE.

FLYING M RANCH See **McKINNEY**

FLYING OAKS See **AZLE**

FOARD CO See **CROWELL**

FT CLARK RANCH See **BRACKETTVILLE**

FT STOCKTON
PECOS COUNTY 2 NW
3010 H42 (1) BL4 S5 F4 U-1 FSS: WINK
Remarks: Attended days. 5600' strip avbl.

FORT WORTH
GREATER SOUTHWEST INTL, DALLAS-FT WORTH FLD See Section IV-A

LUCK 10 S
700 H30 (1) L4 S2 F4
FSS: FORT WORTH (LC MA 4-8444)
Remarks: P-lines N and S. Attended days.

MEACHAM FLD See Section IV-A

OAK GROVE *IFR* 11 S
690 H20 (1) L4 S5 F4 U-1
FSS: FORT WORTH (LC MA 4-8444)
VFR ADV: For APP CON, DEP CON See FORT WORTH/ GREATER SOUTHWEST INTL in Section IV-A.
Remarks: Rgt tfc N.

AIRPORT DIRECTORY

RUSSELL FLD 6 S
710 31 (2) S5 F4
FSS: FORT WORTH (LC MA 4-8444)
Remarks: NE blkd. Extreme caution when wet.

SAGINAW 8 N
770 H26 (1) S5 F4 U-1
FSS: FORT WORTH (LC MA 4-8444)
Remarks: P-lines S, SE. Rgt tfc strips 12, 18.

FOSTER FIELD See SAN ANTONIO

FOX See RAYMONDVILLE

FREDERICKSBURG
GILLESPIE CO 3 SW
1694 H30 (1) BL4 F4 FSS: JUNCTION
Remarks: Unattended weekends.

FREER MUNI 1 NE
570 25 (2) F2 FSS: ALICE
Remarks: P-line SE.

FRIONA
BENGER ARPK 2 NE
4003 35 (3) L4 S5 F4 FSS: AMARILLO

FULKS See WOLFE CITY

GAGE FIELD See TEAGUE

GAINESVILLE 3 W
833 H47 (4) *L4 S5 F5 FSS: ARDMORE

GALVESTON
SCHOLES FLD *IFR* 3 SW
07 H60 (3) BL4 S5 F4, JP4 U-1
FSS: GALVESTON on Fld.
VFR ADV: For APP CON, DEP CON See HOUSTON/INTL in Section IV-A.
Remarks: IFR arriving acft ctc HOU apch & remain on that freq until advised to ctc GLS rdo. IFR depart acft ctc GLS rdo for clearance.

SKY DIVERS See LEAGUE CITY

GANADO
CALAWAY 2 NE
100 26 (1) FSS: PALACIOS
Remarks: Soft when wet.

GARNER FLD See UVALDE

GARWOOD 1 SW
125 22 (1) S3 F2 FSS: PALACIOS
Remarks: 10' bank N. Unattended.

GATESVILLE
COUNTRY CLUB 1 SE
800 30 (1) L2 F3 FSS: WACO
Remarks: P-lines S.

GENOA 1 NE
46 H25 (1) L4 S3 F4 U-1
Remarks: Rgt tfc strips 11, 14, 20. P-line NE.

GEORGETOWN MUNI 3 N
784 H41 (2) BL4 S5 F4 FSS: AUSTIN
Remarks: Bcn operg on request.

GIDDINGS 1 S
480 26 (1) B F4 FSS: AUSTIN
Remarks: Unattended. P-line S.

GILLESPIE CO See FREDERICKSBURG

GILMER
POOLE'S 6 SW
450 27 (1) FSS: GREGG COUNTY
Remarks: P-line N.

STRACENER 4 N
350 24 (1) S1 F2 FSS: GREGG COUNTY
Remarks: P-line E.

GLADEWATER MUNI 2 SW
296 23 (2) FSS: GREGG COUNTY
Remarks: Unattended.

GONZALES MUNI 2 NW
350 H30 (1) L4 F4 FSS: SAN ANTONIO
Remarks: Towers S. Rgt tfc rnwy 33.

GOTTWALD See HARWOOD

GRAHAM MUNI 2 E
1120 H33 (1) BL4 S3 F4 U-1 FSS: MINERAL WELLS
Remarks: P-line W. Tower N. Soft when wet.

GRANBURY 2 W
718 27 (1)

GRANDPAPPY POINT See DENSION

GRAND PRAIRIE Adj S
550 H28 (3) *L4 F4 U-1 FSS: DALLAS (LC RI 9-3511)
Remarks: P-lines N, NE, SW; bldgs NW.

GRAPEVINE
SOUTH LAKE 4 W
700 17 (1)
Remarks: P-line S.

WRIGHT FARM 1 N
625 20 (1) F2
Remarks: Trees NE end. Unattended.

GRAWUNDER FLD See BELLVILLE

GREATER SOUTHWEST INTL, DALLAS-FT WORTH FLD See FT WORTH, GREATER SOUTHWEST INTL, DALLAS-FT WORTH FLD in Section IV-A

GREENVILLE
MAJORS See Section IV-A

AIRPORT DIRECTORY

EAK RANCH 12 SE
445 18 (1) FSS: DALLAS

ER See SHEFFIELD

GG COUNTY MUNI See LONGVIEW, GREGG COUNTY MUNI Section IV-A

DALUPE COUNTY See SEGUIN

NTHER FLD See LA GRANGE

F COAST See TEXAS CITY

HRIE
)FRANCE RANCH 18 NE
:650 21 (1) F2
Remarks: Unattended. P-line N.

E COUNTY See PLAINVIEW, HALE COUNTY in Section IV-A

ILTON
MILTON FLD See BIG SPRINGS

MILTON MUNI 2 S
1320 30 (2) B*L4 F2 FSS: WACO

LIN MUNI 1 N
1700 25 (2) S1 FSS: ABILENE
Remarks: P-line W. Unattended.

ID H See HOUSTON

LINGEN MUNI (HARVEY-RICHARDS FLD) *IFR* 3 W
46 H49 (2) BL4 S5 F4
FSS: BROWNSVILLE (LC GA 5-1115)
VFR ADV: For APP CON DEP CON See BROWNSVILLE/ RIO GRANDE VALLEY INTL in Section IV-A.
Remarks: P-line W.

RELL FISHING CAMP See COLORADO CITY

RISON COUNTY See MARSHALL

WOOD
)TTWALD FLD 1 S
440 20 (1) S3
Remarks: P-line NW; fence SE. Unattended

CELL LANDING STRIP 2 N
1500 24 (1) FSS: ABILENE
Remarks: 500 ft tower approx 1 mi SW.

ERLAH See PLEASENTON

OSS RANCH See BASTROP

RNE MUNI 1 W
287 H70 (1) S5 F2 FSS: COLLEGE STATION

RICK AIRPARK See SAN ANTONIO

PHILL CO See CANADIAN

HEMPHILL 3 NW
320 24 (1) FSS: LUFKIN
Remarks: Soft when wet.

HENDERSN
RUSK COUNTY 3 W
440 H30 (2) L4 S5 F4 U-1 FSS: GREGG COUNTY
Remarks: Bcn opng prior request.

HENINGTON See WOLFE CITY

HENNINGTON See LIVINGSTON

HEREFORD MUNI 4 NE
3783 H44 (1) L4 S5 F4 FSS: AMARILLO

HIGHLAND PARK See DALLAS

HILLPORT See NORMANGEE

HILLSBORO
HILLSBORO MUNI 3 N
663 H35 (1) FSS: WACO
Remarks: Pavement soft.

TRIPLETT RANCH 5 SW
615 26 (3) F2 U-1 FSS: WACO
Remarks: P-line S, SW. Unattended. Cattle on fld.

HI-WAY 77 See DALLAS

HOLT See WHEELER

HONDO MUNI 2 NW
927 H61 (4) *L4 S5 F4 FSS: SAN ANTONIO

HOUSE ARPK See LIBERTY

HOUSTON
AIRMAN'S FLD 10 N
103 21 (3) L4 F4 U-1 FSS: HOUSTON (LC MI 5-6693)
Remarks: P-line N; trees W.

ANDRAU ARPK *IFR* 10 SW
80 H50 (2) BL4 S5 F4 FSS: HOUSTON (LC MI 5-6693)
VFR ADV: For APP CON DEP CON See HOUSTON/INTL in Section IV-A
Remarks: P-line S.

CLOVER FLD 17 SE
43 H40 (1) BL4 S5 F4 FSS: HOUSTON
Remarks: P-line E. 80' oil derrick on arpt and adj bndrys.

COLLIER 8 NW
90 30 (1) F4 FSS: HOUSTON (LC MI 5-6693)
Remarks: Fence N. Lgts E side rnwy opng dusk-dawn.

H AND H 10 N
82 28 (1) BL4 F4 FSS: HOUSTON
Remarks: Use strip. P-line SE. Bcn on req.

HOUSTON INTL See Section IV-A

AIRPORT DIRECTORY

MEML SKYLAND 18 NW
125 27 (1) L4 S5 F4 FSS: HOUSTON (LC MI 5-6693)
Remarks: P-line N. Unmrkd open ditch across N/S rnwy 150' S of N end.

NORTHWEST AVIATION INC 20 NW
150 H40 (1) L4 F4 FSS: HOUSTON
Remarks: P-line N end N/S rnwy. Lake on E side for seaplane operns.

HOUSTON CO See CROCKETT

HOUSTON NORTHWEST See TOMBALL

HOWARD CO See BIG SPRING

HULL FIELD See SUGAR LAND

HUMBLE 2 SW
87 30 (1) S3 F2 FSS: HOUSTON
Remarks: P-line S.

HUMPHREY See BAYTOWN

HUNT See PORTLAND

HUNTSVILLE MUNI 2 NW
366 H25 (1) L4 S5 F4 U-1 FSS: COLLEGE STATION
Remarks: Attended 24 hrs. 41' rdo twr 530' N.

HURD MEMORIAL See MONAHANS

HURST FLYER'S FLD See EULESS

HUTCHINSON CO See BORGER

IDALOU 1 SW
3190 35 (2) F4
Remarks: P-line N & S.

INGENHUETT FLD See COMFORT

IRAAN MUNI 1 SE
2200 H32 (1) FSS: MIDLAND
Remarks: P-lines NE, SE, SW, NW.

ITASCA
REECE RANCH 4 NE
780 22 (1)

JACKSBORO
PURSLEY FLD 4 NW
1100 33 (1) S1 FSS: MINERAL WELLS
Remarks: Unattended. P-line N.

JACKSONVILLE
CHEROKEE CO 6 SE
678 H30 (1) L4 S1 F4 U-1 FSS: TYLER

JASPER COUNTY 3 SW
222 H36 (1) BL4 S5 F4 U-1 FSS: LUFKIN

JEFFERSON
CYPRESS RIVER 2 SE
221 24 (3)
Remarks: Soft wet.

JOHNSON CITY
JOHNSON CITY See Section IV-A

JOLLY 12 E
875 15 (1) FSS: AUST
Remarks: P-line S.

JOHNSON FLYING SERVICE See LAMESA

JOLLY See JOHNSON CITY

JONES FLD See BONHAM

JONES MUNI See ATHENS

JORGENSEN See ADDICKS

JUNCTION
KIMBLE COUNTY *IFR* 1 NE
1729 H33 (1) L4 S1 F4 FSS: JUNCTION en F
Remarks: Hills NW, NE, SE. Attended on call.

JUNO
W W WEST RANCH 7 NW
1833 27 (1) S1

KARNES CITY
KENEDY 3 SE
400 36 (1)
Remarks: P-line SSE.

KEENE
SOUTHWESTERN UNION COLLEGE Adj W
915 23 (1)
Remarks: P-line E.

KENEDY
EVANSTON 1 NW
283 17 (1) FSS: ALIC
Remarks: Trees SE.

KENEDY See KARNES CITY

KERMIT
ROBINSON 1 E
2800 H31 (1) BL4 S1 FSS: [illegible]
Remarks: P-line W. Unattended.

KERRVILLE MUNI 5 SE
1608 H44 (2) BL4 S5 F4 U-1
FSS: JUNCTION (LC CL [illegible]
Remarks: P-line SW.

KICKAPOO See WICHITA FALLS

KICKAPOO LODGE See MAUD

AIRPORT DIRECTORY

GORE COMMUNITY 3 E
365 30 (2) S3 F2 FSS: KILGORE
Remarks: Irregularly attended. P-line N, S.

LEEN MUNI 3 SE
844 30 (3) F4 FSS: WACO
Remarks: P-line N, NW. Rgt tfc rnwys 1, 8, and 34.

BLE COUNTY See JUNCTION

GSLAND
JNRISE BEACH 4 SE
840 26 (1) FSS: AUSTIN

GSLAND ESTATES 3 W
865 33 (1) FSS: AUSTIN

GSVILLE
NGSVILLE 8 W
128 H60 (1) BL4 S3 F4 FSS: ALICE

ESQUITE 5 SW
76 22 (2) F2 FSS: ALICE
Remarks: P lines W & NW.

SYVILLE 1 SW
175 H30 (2) BL4 S5 F2 FSS: BEAUMONT
Remarks: P-Line on N, S and SW apchs.

X CITY MUNI 1 N
1485 26 (1) F4 FSS: WICHITA FALLS
Remarks: Ant NE, P-line E. atndd daylight hrs during dusting season.

GRANGE
JENTHER FLD 1 SW
275 26 (2) S5 F2 FSS: AUSTIN
Remarks: P-line N, NW.

E DALLAS
AKE VIEW 1 NE
535 20 (1)

EFIELD See SAN ANTONIO

E JACKSON 1 W
12 H50 (1) BL4 F4 U-1 FSS: GALVESTON

E VIEW See LAKE DALLAS

EWAY ARPK See AUSTIN

E WHITNEY STATE PARK See WHITNEY

ESA
)HSON FLYING SERVICE 2 N
3050 26 (2) F2 FSS: MIDLAND
Remarks: Unlgtd twr S. E blkd. P-line W. Fuel emgcy.

MESA MUNI 1 E
2994 H42 (2) L4 S5 F4 U-1 FSS: MIDLAND
Remarks: Threshold displaced 270' rnwy 15. P-lines apch rnwy 24.

LAMPASAS COUNTY 5 NW
1360 33 (3) L4 S1 F2
Remarks: Fence N. Bcn operg. on request.

LANE AIRPARK See ROSENBURG

LA PORTE MUNI 2 NW
30 H35 (1) BL4 S5 F4 U-1
FSS: HOUSTON (LC MI 5-6693)

LAREDO MUNI See Section IV-A

LEAGUE CITY
GALVESTON SKYDIVERS 2 S
20 16 (2)
Remarks: Sky diving Sat, Sun. PM.

LEAKEY
SHARP FLD 1 N
1625 29 (1) FSS: JUNCTION
Remarks: P-line S rdo twr SW.

LeFLAR See MUNDAY

LeFORS FIELD See PAMPA

LEVELLAND MUNI 2 S
3525 H29 (1) BL4 F2 FSS: LUBBOCK
Remarks: P-line SW, W, NE.

LIBERTY
HOUSE ARPK 4 SE
70 29 (1) *L4 S3 F3 FSS: HOUSTON
Remarks: P-line NW.

LIBERTY AIR SERVICE *IFR* 6 NE
70 44 (1) L4 S3 F3 U-1 FSS: HOUSTON
Remarks: P-line S.

LILLIE MEML See BAYTOWN

LITTLEFIELD MUNI 2 W
3558 H34 (2) L4 S5 F3 FSS: LUBBOCK

LIVINGSTON
HENNINGTON 3 S
120 30 (1) FSS: LUFKIN

LLANO MUNI 2 NE
1011 42 (2) F2 FSS: AUSTIN
Remarks: P-line N unattended.

LOCKHART MUNI 2 S
529 28 (2) FSS: AUSTIN

LOES HIGHPORT RESORT See POTTSBORO

LOMETA AIR STRIP 3 NW
1500 21 (1) FSS: AUSTIN
Remarks: Stock on fld.

LONE STAR STEEL COMPANY 2 SW
285 H36 (2) U-1 FSS: GREGG COUNTY

AIRPORT DIRECTORY

LONGVIEW
EAST SIDE 2 E
352 25 (2) S5 F2 FSS: GREGG COUNTY (LC M13-2612)
Remarks: P-line SE.

GREGG COUNTY MUNI See Section IV-A

LORENZO 4 NW
3200 37 S5 F4
Remarks: P-line E, NE, SW. Wires N, S.

LOVE FLD See DALLAS, LOVE FLD in Section IV-A

LOWAKE INN Adj S
1749 24 (1) L4 FSS: SAN ANGELO
Remarks: P-line N.

LOWRANCE RANCH See GUTHRIE

LUBBOCK
LUBBOCK MUNI See Section IV-A

TOWN AND COUNTRY ARPK 6 S
3270 H21 (1) L4 S5 F4 FSS: LUBBOCK
Remarks: P-line W 3200 strip.

LUCAS See ARLINGTON

LUCK See FT WORTH

LUFKIN
ANGELINA COUNTY *IFR* 7 SW
290 H44 (2) BL4 S3 F4 U-1 FSS: LUFKIN on fld
Remarks: N/S rnwy. rstd. to 30,000 lbs.

LULING MEML 3 N
475 28 (1) L4 S3 F4 U-1 FSS: SAN ANTONIO

MAJORS See GREENVILLE, MAJORS in Section IV-A

MALAKOFF 1 E
410 31 (1) FSS: TYLER
Remarks: P-line S/SE.

MANGHAM FIELD See SMITHFIELD

MARBLE FALLS
SHERWOOD SHORES 4 NW
845 21 (1)

MARFA
MARFA MUNI 3 N
4846 H53 (2) S5 F4 FSS: WINK

PRESIDIO COUNTY 8 SE
4885 H75 (4) F4 U-1 FSS: WINK

RAWLS RANCH 39 S
4700 36 (4) FSS: WINK
Remarks: Hill and p-line S.E.

MARIAN ARPK See WELLINGTON

MARLIN 3 NE
450 29 (1) F2 FSS: WACO
Remarks: P-line crosses strip S end. Unattended.

MARSHALL
HARRISON CO *IFR* 3 SE
357 H35 (2) BL4 S5 F4 U-1 FSS: SHREVEPORT

MARYAN DUDE RANCH See BANDERA

MASON COUNTY 3 SE
1500 36 (2) FSS: JUNCTION

MATAGORDA BEACH 5 S
8 21 (1) FSS: PALACIOS

MATHIS
VAHLSING 2 NE
161 32 (1) F2 FSS: ALICE

MATHIS FLD See SAN ANGELO, MATHIS FLD in Section IV-A

MAUD
KICKAPOO LODGE 5 S
300 H18 (1) FSS: TEXARKANA
Remarks: 2175' strip.

MAULDIN FLD See BROWNSVILLE

MAYFIELD RANCH See CORNUDAS

McALLEN
MILLER INTL *IFR* 2 S ACE
106 H49 (2) BL4 S5 F4 U-1 FSS: McALLEN or RIO
VFR ADV: For APP CON DEP CON See BROWNSVILLE RIO GRANDE VALLEY INTL in Section IV-A
Remarks: P-line N, S, TV ant NE. Rnwy 31 threshold displ 542 ft NE.

McCAMEY
UPTON COUNTY 1 SW
2439 H41 (1) BL4 S5 F2 U-1 FSS: MIDLAND
Remarks: P-line S, SE. Unattended.

McCONNELL FARM See DELL CITY

McCOY See ESPERANZA

McKINLEY FIELD See PEARSALL

McKINNEY
FLYING M RANCH 5 W
760 25 (1) U-1 FSS: DALLAS
Remarks: P-line N.

McLEAN MUNI 3 E
2800 29 (1) FSS: CHILDRESS
Remarks: P-line S. Ruf.

McNABB FARM See ROPESVILLE

MEACHAM FLD See FT WORTH, MEACHAM FLD in Section IV-A

AIRPORT DIRECTORY

)INA
IRCLE R SKY RANCH 2 NW
1471 23 (1) F2

AL SKYLAND See HOUSTON

APHIS MUNI 1 NE
2082 39 (3) FSS: CHILDRESS
Remarks: E, SE blkd. Soft-wet.

IARD COUNTY 2 NW
1880 H31 (1) F4 FSS: JUNCTION
Remarks: P-line S.

:CEDES
EBEL FLD 3 NE
60 H31 (1) F5 FSS: McALLEN

QUITE See KINGSVILLE

:IA MUNI 1 SE
516 30 (3) S3 F3 FSS: WACO
Remarks: P-line rgt tfc E, N. Ruf.

LAND
IDLAND ARPK 3 N
2805 H58 (3) L4 F4 U-1 FSS: MIDLAND (LC LO 3-2611)
Remarks: Rgt tfc rnwys 25 , 29, and 34.

IDLAND-AIR TERMINAL See Section IV-A

VALLEY See WESLACO

ESKA See BROOKSHIRE

_ER INTL See McALLEN

_IGAN RANCH See WHITESBORO

:OLA
SENER FLD 1 W
418 H25 (1) B FSS: TYLER
Remarks: Soft when wet.

:RAL WELLS *IFR* 3 SE
964 H42 (2) BL4 S5 F5 U-1
FSS: MINERAL WELLS on Fld
Remarks: Rnwy 17-35 clsd to air carrier use glide angle 10:1.
TV ant lctd on end rnwy 17.

AHANS
JRD MEML 1 SW
2614 H36 (2) L4 S1 F4 U-1 FSS: WINK
Remarks: Water twr in tfc pat P-line NE, E.

TGOMERY CO See CONROE

ROW FIELD See POST

TON
)CHRAN COUNTY 1 E
3750 31 (3) L4 S1 F2 FSS: LUBBOCK

MOUNTAIN HOME
Y O RANCH 16 NW
2135 22 (1) FSS: JUNCTION
Remarks: P-line N, E.

MOUNT PLEASANT MUNI 2 S
416 H38 (1) S5 F4 FSS: TEXARKANA
Remarks: Unattended phone police for fuel.

MUELLER MUNI See AUSTIN, MUELLER MUNI in Section IV-A

MUENSTER
FLEITMAN FLD Adj E
1015 22 (1)
Remarks: P-line S end.

MULESHOE
WARREN FLD 1 NE
3786 H36 (1) *L4 S3 F2 U-1 FSS: LUBBOCK
Remarks: Fence N.

MUNDAY
LeFLAR Adj E
1483 22 (1) F2 FSS: WICHITA FALLS
Remarks: P-lines N, S.

NACOGDOCHES
DEL RENTZEL 3 SW
372 H36 (1) *L4 S5 F4 U-1 FSS: LUFKIN

NAVASOTA MUNI 1 SW
205 25 (1) L4 FSS: COLLEGE STATION
Remarks: P-line N.

NOCONA 1 SW
940 26 (1) FSS: WICHITA FALLS
Remarks: P-line NW.

NORMANGEE
HILLPORT 6 NW
466 34 (1) L4 F4 FSS: COLLEGE STATION

NORTHEAST See SAN ANTONIO

NORTHWEST AVIATION INC See HOUSTON

NUECES COUNTY See ROBSTOWN

OAK GROVE See FT WORTH

O'BRIEN ARPK See WAXAHACHIE

ODESSA
ECTOR COUNTY 3 NW
2979 H51 (3) BL4 S5 F4 FSS: MIDLAND (LC LO 3-2611)
Remarks: Lgts prior req after 0200.

OLNEY MUNI 3 SW
1274 H55 (3) F2 FSS: WICHITA FALLS
Remarks: Use rnwys.

ORANGE
BROWN 3 SW
14 50 (4) L4 S3 F4 U-1 FSS: BEAUMONT
Remarks: P-line SE. FEE.

AIRPORT DIRECTORY

OZONA MUNI 1 N
2330 H39 (1) BL4 S3 F4 U-1 FSS: SAN ANGELO
Remarks: Twr NW.

PADUCAH
CITY-COUNTY 1 NE
1840 37 (1) FSS: CHILDRESS

PALACIOS
PALACIOS MUNI *IFR* 2 NW
13 H50 (3) BL4 S5 F4 FSS: PALACIOS on Fld
Remarks: Rnwy 9 does not incct obst criteria for air carrier opers.

RICHMAN 5 NE
22 21 (1) FSS: PALACIOS

PALESTINE MUNI 4 NW
422 H40 (2) BL4 F4 U-1 FSS: TYLER

PALO DURO See AMARILLO

PAMPA
LE FORS FLD 5 NW
3244 H45 (3) BL4 S3 F4 U-1
FSS: AMARILLO (LC MO 4-3360)

PANOLA CO See CARTHAGE

PARIS
COX FLD *IFR* 5 E —
547 H46 (3) BL4 F4 U-1 FSS: DALLAS

PARK CITIES See DALLAS

PARKER COUNTY See WEATHERFORD

PATTISON See PERRYTON

PAULDER See CROSBYTON

PEAK RANCH See GREENVILLE

PEARLAND Adj SE
51 26 (2) L4 S5 F4 U-1 FSS: HOUSTON (LC MI 5-6693)
Remarks: P-line SW, W, E, NE.

PEARSALL
BEAR GRACEY RANCH 6 NW
681 H22 (2) FSS: COTULLA
Remarks: P-lines N, windmill W. 1300' gravel extension on rnwy 9.

McKINLEY FLD 3 S
585 H33 (1) F2 FSS: COTULLA
Remarks: Fence NE.

PECAN GAP 1 SW
550 21 (1) F2

PECOS
PECOS MUNI *IFR* 2 SW
2617 H72 (3) BL4 S5 F4 U-1 FSS: WINK (LC HI 5-4300)
Remarks: Fence E.

PECOS COUNTY See FT STOCKTON

PEIKERT See PORT LAVACA

PERRYMAN See SEYMOUR

PERRYTON
PATTISON 14 SW
3020 26 (1) FSS: GAGE

PERRYTON MUNI 3 E
2915 H41 (1) BL4 S5 F4 U-1 FSS: GAGE

PHILLIPS See ROTAN

PINE AIR PARK Adj NW
330 17 (1) FSS: GREGG COUNTY

PINELAND 1 SW
260 33 (1) FSS: LUFKIN (LC NE 4-3544)
Remarks: Unattended; P-line N.

PLAINS
YOAKUM COUNTY 1 NW
3650 H26 (1) L4 F4 FSS: HOBBS
Remarks: P-line NW. Irregularly attended 3180 strip avbl.

PLAINVIEW HALE COUNTY See Section IV-A

PLEASANTON
HAVERLAH 1 N
374 22 (2) F2 FSS: SAN ANTONIO
Remarks: Unattended.

POOLE'S See GILMER

PORT ISABEL
CAMERON CO 10 NW
17 H80 (4) BL4 S3 F4 FSS: BROWNSVILLE
Remarks: Attended days. P-line W end.

PORTLAND
HUNT 2 NW
40 H19 (1) S5 F4 U-1 FSS: ALICE
Remarks: 700' overrun on SE end.

PORT LAVACA
PIEKERT 2 SW
17 19 (1) S3 F2 FSS: PALACIOS
Remarks: P-line S. Unattended.

TANNER 3 S
15 23 (3) L4 S5 F4 U-1 FSS: PALACIOS
Remarks: Attended 0800-1800. Prior approval required for transient acft by telephone or unicom. Fee for commercial acft. N half rnwy 17-35 lgtd as txwy.

PORT MANSFIELD 1 NW
10 H26 (1) L4 S5 FSS: BROWNSVILLE
Remarks: Fence both ends rnwy.

POST
MORROW FLD 3 N
2645 26 (2) FSS: LUBBOCK
Remarks: P-lines E and N. Soft-wet. Unattended.

AIRPORT DIRECTORY

LAZY S RANCH 9 S
2500 H19 (1) BL4 FSS: LUBBOCK

TSBORO
OES HIGHPORT RESORT 5 NW
710 21 (1) FSS: ARDMORE

INDS FLD See TYLER, POUNDS FLD in Section IV-A

SIDIO COUNTY See MARFA

VITT See ELGIN

CE See ROCHELLE

SLEY FLD See JACKSBORO

ON See ARLINGTON

NAH MUNI 2 SW
1602 H24 (1) L4 S1 F4 FSS: CHILDRESS

GER MUNI 1 S
1467 22 (1) S5 F4 FSS: MINERAL WELLS
Remarks: Fences SE. Ant S.

LS RANCH See MARFA

MONDVILLE
DX 1 SW
33 26 (3) S3 F2 FSS: BROWNSVILLE
Remarks: P-line SE, S.

EL FIELD See MERCEDES

BIRD See DALLAS, RED BIRD in Section IV-A

SPRINGS
RLEDGE RANCH 3 NW
1400 30 (1) FSS: WICHITA FALLS

CE RANCH See ITASCA

UGIO
OKE FLD 2 SW
54 H25 (1) L4 S3 F4 U-1 FSS: ALICE
Remarks: P-line NE, NW, SE; dangerous if wet.

MAN See PALACIOS

GRANDE VALLEY INTL See BROWNSVILLE, RIO GRANDE LLEY INTL in Section IV-A

HONDO
RKE FLYING SERVICE 1 NE
26 21 (1) S5 F4 FSS: BROWNSVILLE (LC GA 5-1115)
Remarks: P-line N, S.

XAS DUSTING SERVICE 1 SE
30 18 (1) F2, 4 FSS: BROWNSVILLE
Remarks: First 1040' mwy 17 asphalt.

RVIEW AIRPARK See SAN ANTONIO

ROARING SPRINGS
BUZZ FLD 2 N
2600 26 (3) F2 FSS: CHILDRESS
Remarks: P-line SW. Rolling. Golf course side rnwys.

ROBINSON See KERMIT

ROBSTOWN
NUECES COUNTY 1 SW
77 H16 (3) F2 FSS: ALICE

ROCHELLE
PRICE Adj W
1800 33 (1)

ROCKPORT
ARANSAS COUNTY 4 N
25 H45 (3) BL4 S5 F4 U-1 FSS: ALICE
Remarks: Bcn and mwy lgts on request after 2400.

ROCKWALL MUNI 1 E
574 H23 (1) F2 FSS: DALLAS
Remarks: P-line S.

ROMERO
CASTLEBERRY RANCH 1 NE
4100 H39 (1) F4 FSS: DALHART (LC CH 9-2006)
Remarks: P-lines N E.

ROOKE FIELD See REFUGIO

ROPESVILLE
McNABB FARM 4 E
3310 28 (2) FSS: LUBBOCK
Remarks: Surnd by fence.

ROSENBURG
LANE ARPK 3 SE
94 48 (1) S3 F3 FSS: HOUSTON
Remarks: Use strips.

ROTAN
PHILLIPS 8 W
2150 20 (2) FSS: ABILENE

R PAULEY FARM See DELL CITY

RUSK COUNTY See HENDERSON

RUSSELL FLD See FT WORTH

SAGINAW See FT WORTH

SAM EAKIN See CROSS PLAINS

SAN ANGELO MATHIS FLD See Section IV-A

SAN ANTONIO
FOSTER FLD 9 S
500 H13 (1) L4 F4 FSS: SAN ANTONIO
Remarks: 2500' strip avbl.

AIRPORT DIRECTORY

HEDRICK ARPK 6 NE
745 31 (1) S5 F4 FSS: SAN ANTONIO (LC TA 6-6323)
Remarks: Fence both ends.

LAKEFIELD 9 S
550 23 (2) F2 FSS: SAN ANTONIO

NORTHEAST 4 NE
800 18 (1) S5 F2 FSS: SAN ANTONIO

RIVERVIEW ARPK 9 S
670 20 (1) S3 F2 FSS: SAN ANTONIO
Remarks: River bank S. Rgt tfc N. Unattended.

SAN ANTONIO INTL See Section IV-A

STINSON FLD See Section IV-A

TWIN OAKS 3 N
800 21 (1) S5 F2, JP1 FSS: SAN ANTONIO

SAN BENITO MUNI 1 E
31 26 (3) B S3 F2 U-1
FSS: BROWNSVILLE (LC GA 5-1115)
Remarks: P-line S.

SANDERSON 2 W
2900 24 (1)

SAN GABRIEL
CAMP'S RANCH 1 E
436 25 F2
Remarks: P-line S. Unattended.

SAN LEON
ELLIS 2 NW
15 14 (1) FSS: GALVESTON
Remarks: P-line NW.

SAN MARCOS MUNI 3 S
526 H33 (1) S5 F4 FSS: AUSTIN
Remarks: P-line N.

SAN SABA CO 2 N
1250 36 (1) FSS: AUSTIN
Remarks: Displaced threshold 630' SE, 230' NW.

SCHOLES FLD See GALVESTON

SEAGRAVES 1 NE
3350 29 (2) L4 F2 FSS: HOBBS
Remarks: P-lines N, NE. Attended irreg.

SEGUIN
GUADALUPE CO 2 NW
556 H20 (1) L4 S5 U-1 FSS: SAN ANTONIO

SEYMOUR
PERRYMAN 3 NE
1310 24 (1) FSS: WICHITA FALLS

SHALLOWATER Adj W
3291 H26 (1) L4 S5 F4 U-1 FSS: LUBBOCK
Remarks: P-lines S. Rolling.

SHAMROCK MUNI 1 S
2323 26 (2) BL4 F2 FSS: CHILDRESS
Remarks: Radio ant W. Unattended.

SHARP FLD See LEAKY

SHEFFIELD
GREER 1 W
2300 35 (2) L4 F4 FSS: MIDLAND
Remarks: P-line E, N. Unattended.

SHEPPARD AFB/WICHITA FALLS AIR TRML See WICHITA FALLS, SHEPPARD AFB/WICHITA FALLS AIR TRML in Section IV-A

SHERMAN MUNI *IFR* 1 SE
745 H40 (1) BL4 F4 U-1 FSS: ARDMORE
VFR ADV: PERRIN APP CON 119.9, 135.9, 126.8, 122.5R.
Remarks: Rgt tfc ldg N.

SHERWOOD SHORES See MARBLE FALLS

SILVERTON MUNI Adj E
3230 34 (1) F4 FSS: AMARILLO
Remarks: Unattended no services avbl.

SINTON MUNI 2 W
49 H42 (1) BL4 S3 F4 U-1 FSS: ALICE
Remarks: Fence SE. P-line S.

SKELLYTOWN Adj E
3240 21 (1) FSS: AMARILLO

SKYLINE See SPRING

SMITHFIELD
MANGHAM FLD 1 SE
620 34 (3) *L4 S3 F4
Remarks: P-line SW, N, NE.

SNOOK
BURCH FLD 2 SW
320 17 (1) S3 F2
FSS: COLLEGE STATION (LC VI 6-8764)
Remarks: P-line NE.

SNYDER
WINSTON FLD 2 SW
2427 H48 (2) BL4 S5 F4 U-1 FSS: MIDLAND
Remarks: Fence SE.

SONORA
ALLISON-SONORA 16 NW
2350 15 (3) FSS: SAN ANGELO

SONORA MUNI Adj N
2139 H35 (1) L4 S1 F4 U-1 FSS: SAN ANGELO
Remarks: Rdo twr 1 mi E. Fences N, S. Unattended.

TEXAS AGRICULTURAL EXPERMENT STA 14 18 SW
2400 22 (2) FSS: SAN ANGELO
Remarks: P-line S. Unattended.

SOUTHLAKE See GRAPEVINE

AIRPORT DIRECTORY

THWESTERN U.4ION COLLEGE See KEENE

ARMAN Adj W
3104 H29 (1) L4 S5 F2 FSS: DALHART
Remarks: SW blkd.

NG
YLINE 1 SW
·25 25 (1) U-1 FSS: HOUSTON
Remarks: P-line N. Ant NW. Unattended.

MUNI 2 S
·316 26 (3) FSS: LUBBOCK
Remarks: P-lines W. Unattended. Muddy when wet.

FORD
LEDGE FLD 4 SE
545 H23 (3) *L S3 F2 FSS: ABILENE

NES See COTTON CENTER

NS See ALPINE

HENS CO See BRECKENRIDGE

HENVILLE
ARK MUNI 1 E
318 H42 (1) BL4 S5 F4 U-1 FSS: MINERAL WELLS

LING CITY
E RANCH 14 S
500 34 (1) F2 FSS: SAN ANGELO
marks: Rdo twr 150 SW. Unattended.

ON FLD See SAN ANTONIO, STINSON in Section IV-A

ENER See GILMER

Adj S
78 28 (2)
marks: P-line N. Soft when wet. Unattended.

LAND
L FLD 1 W
H35 (1) BL4 S5 F4 U-1
FSS: HOUSTON (LC MI 5-6693)

UR SPRINGS MUNI 1 NW
H39 (2) BL4 F4 FSS: DALLAS
marks: P-line E.

WN 1 NW
'5 27 (2) FSS: LUBBOCK
narks: Unattended.

ND ARPK See EL PASO

Adj NW
0 41 (1) F4 FSS: DALHART
narks: P-lines all apchs.

E BEACH See KINGSLAND

SWEETWATER MUNI 3 W
2386 H62 (3) BL4 F4 U-1 FSS: ABILENE
Remarks: Lgts emgcy only. Rnwy lgts dusk - 8 PM and on prior req.

TAFT
WORSHAM 1 NE
54 22 (3) S3 F2 FSS: ALICE
Remarks: P-line W, NW.

TAHOKA
T-BAR 1 NW
3200 H25 (1) FSS: LUBBOCK
Remarks: P-line, twr S. Unattended.

TANNER See PORT LAVACA

TAYLOR
TAYLOR See ALBANY

TAYLOR MUNI 2 W
568 21 (2) L4 S5 F2 U-1 FSS: AUSTIN

T-BAR See TAHOKA

TEAGUE
GAGE FLD 1 N
506 H22 (1) S1 FSS: WACO

TEMPLE
DRAUGHON-MILLER MUNI *IFR* 5 NW
698 H63 (3) BL4 S5 F5 FSS: WACO
VFR ADV: For APP CON DEP CON See WACO/MUNI in Section IV-A
Remarks: Use rnwys.

TERLINGUA 2 E
2700 36 (1) FSS: WINK
Remarks: Unattended.

TERRELL
TERRELL MUNI 1 SE
479 H30 (2) L4 S5 F4 U-1 FSS: DALLAS
Remarks: P-line NW.

WALLACE 2 W
500 23 (1) F2 FSS: DALLAS
Remarks: P-line SSE.

TERRY CO See BROWNFIELD

TEXAS AGRICULTURAL EXPERIMENT STA 14 See SONORA

TEXAS CITY
GULF COAST 2 NW
7 23 (3) S5 F2 FSS: GALVESTON
Remarks: P-line N. Fence W.

TEXAS DUSTING SERVICE See RIO HONDO

TIMS ARPK See AUSTIN

AIRPORT DIRECTORY

TOMBALL
HOUSTON NORTHWEST 3 SE
150 H40 (1) BL4 S5 F3 U-1 FSS: COTULLA
Remarks: P-line N.

TOWN AND COUNTRY AIRPARK See LUBBOCK

TOWNSEND RANCH See DEL RIO

TRADEWIND See AMARILLO

TRAYLAND See BEEVILLE

TRIPLETT RANCH See HILLSBORO

TRISSELL See CLARKSVILLE

TULIA 1 NW
3500 H39 (1) S1 F4 FSS: AMARILLO
Remarks: Fence N & S. P-line NE. Irregularly attended.

TWIN OAKS See SAN ANTONIO

TYLER POUNDS FLD See Section IV-A

TYLER COUNTY See WOODVILLE

U LAZY S RANCH See POST

UPTON COUNTY See McCAMEY

UVALDE
GARNER FLD 2 E
940 H37 (2) BL4 S5 F4 U-1 FSS: COTTULA

VAHLSING See MATHIS

VALENTINE 1 NW
4840 22 (2)

VALLEY MILLS MUNI 3 SE
751 32 (2) FSS: WACO

VAN HORN
CULBERSON COUNTY 3 NE
3955 H60 (3) BL2 F4 FSS: EL PASO
Remarks: Unattended.

VARISCO See BRYAN

VAUGH
5980 40 L4
Remarks: P-line N.

VERNON
WILBARGER COUNTY 4 N
1261 H43 (2) BL4 S5 F4 U-1 FSS: WICHITA FALLS
Remarks: No fuel avbl 0600-1330 Sundays.

VERNON PRICE See BERTRAM

VICTORIA
BALL 5 N
107 25 (3) S5 F4 U-1 FSS: PALACIOS (LC HI 5-1281)

VICTORIA-COUNTY-FOSTER *IFR* 6 NE
115 H100 (4) BL6, 8 S5 F5 U-1
FSS: PALACIOS (LC HI 5-128[illegible]
Remarks: Rgt tfc S. Rnwy 12; rgt tfc N rnwys 30 R & 35 R lgts on request after 2400 thru Palacios FSS. Rnwy 30 R threshold displaced 300' NW.

WACO MUNI See Section IV-A

WAELDER
BEN HAM RANCH 10 NW
500 25 (1)
Remarks: P-line E.

WALKER See EDCOUCH

WALLACE See TERRELL

WALLER-COUNTY 4 S
243 H43 (4) BL4 F2 U-1 FSS: HOUSTO[illegible]

WARREN FIELD See MULESHOE

WAXAHACHIE
O'BRIEN ARPK 6 N
650 24 (1) F2 FSS: DALLA[illegible]
Remarks: Rnwy 16 appr restr by fence. Glide angle 0 to 1.

WEATHERFORD
PARKER CO 5 E
990 30 (1) S3 F2 FSS: MINERAL WE[illegible]
Remarks: Solf-wet.

WEISER ARPK See CYPRESS

WELLINGTON
MARIAN AIRPARK 1 SE
2010 29 (3) F3 FSS: CHILDRE[illegible]
Remarks: P-line N. Ruf use N/S strip-wet irregularly attended

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WESLACO
MID VALLEY 1 NE
70 H25 (1) S3 F4 FSS: McALL[illegible]

WHARTON 6 SE
90 37 (1) L4 S3 F4 U-1 FSS: PALACIO[illegible]
Remarks: P-line SE. NW 3000' rnwy 15-33 lgtd.

WHEELER
HOLT 1 NE
2491 25 (2) F3 FSS: GAB[illegible]
Remarks: P-line S.

WHITE ROCK See DALLAS

W W WEST RANCH See JUNO

WHITESBORO
MILLIGAN RANCH 15 N
710 23 (1)

WHITNEY
LAKE WHITNEY STATE PARK 3 SW
570 40 (2) FSS: WACO
Remarks: P-line N.

AIRPORT DIRECTORY

ITA FALLS
:KAPOO 3 S
?85 H20 (1) L4 S5 F4 U-1
FSS: WICHITA FALLS (LC 322-1302)
Remarks: P-line NW. 3600' strip avbl. Atndd daylight hours.

EPPARD AFB/WICHITA FALLS AIR TRML See Section IV-A

:HITA VALLEY *IFR* 6 NW
020 H35 (1) L4 S5 F4 U-1
FSS: WICHITA FALLS (LC 322-1302)
:emarks: S blkd; P-lines S, SW, W, NW. Rnwy lgts on req after 2230. Atndd daylight hours.

ARGER CO See VERNON

)N RANCH See BAKERSFIELD

ERLEY
GLE ROCK RANCH 2 NNW
59 H27 (1) FSS: AUSTIN
emarks: Landing FEE.

KLER CO *IFR* 3 NW
818 H45 (2) BL4 F4 FSS: WINK on Fld
emarks: 1828' emgcy overrun NW end rnwy 13-31.

.ER CO See WINK

'ON FIELD See SNYDER

IER FIELD See MINEOLA

E CITY
.KS 2 N
20 19 (1) FSS: DALLAS
emarks: P-line E. Ant NE.

IINGTON 1 SW
)0 19 (1) FSS: DALLAS
emarks: Soft when wet.

S See DONNA

VILLE
.ER COUNTY 2 W
:8 H25 (1) L4 FSS: LUFKIN
IAM See TAFT

T FARM See GRAPEVINE

JM
KUM 4 NW
7 36 (2) FSS: PALACIOS

KUM COUNTY See PLAINS

TA 1 SW
7 30 (1) F4 FSS: McALLEN
:marks: P-line N.

UTAH

ARPK See SANDY

BEAVER MUNI 3 SW
5853 H45 (1) FSS: CEDAR CITY

BERYL Adj E
5172 48 (1) FSS: CEDAR CITY

BLANDING MUNI 3 S
5865 H60 (1) BL4 F4 U-1 FSS: GRAND JUNCTION
Remarks: Rnwy 34 threshold displaced 200 ft N. 5800 ft avbl lndg rnwy 34.

BLUFF 4 SW
4476 40 (1)
Remarks: P-line N.

BONANZA 4 N
5368 57 (1) FSS: GRAND JUNCTION

BOUNTIFUL SKY HAVEN 3 SW
4234 H36 (1) S5 F4 U-1
FSS: SALT LAKE CITY (LC 524-5183)

BRIGHAM CITY 3 NW
4223 H48 (1) BL4 S5 F4 U-1 FSS: SALT LAKE CITY
Remarks: P-line S.

BRYCE CANYON *IFR* 4 N
7586 H74 (1) BL4 F4 FSS: BRYCE CANYON on Fld

CARBON COUNTY See PRICE

CEDAR CITY MUNI *IFR* 2 NW
5622 H61 (2) BL4 S5 F4, JP5
FSS: CEDAR CITY on Fld
Remarks: Rgt tfc S, W. Rnwy 20 rgt tfc.

DELTA MUNI *IFR* 3 NE
4755 H60 (2) BL4 F4 FSS: DELTA on Fld
Remarks: Lgts on request thru FSS or circling Fld.

DRAPER 1 NE
4773 45 (1) S5 F2
FSS: SALT LAKE CITY (LC 524-5183)

DUCHESNE MUNI 2 NE
5817 51 (2) F2 FSS: SALT LAKE CITY
Remarks: Unattended. Fuel on call.

DUTCH JOHN 1 SE
6550 60 (2) FSS: ROCK SPRINGS

ESCALANTE Adj SE
5773 40 (1) FSS: BRYCE CANYON
Remarks: P-line N.

FILLMORE 2 W
4988 H50 (1) S1 F2 FSS: DELTA

GARRISON 2 N
5225 35 (2) FSS: DELTA

GOULDING TRADING POST MONUMENT VALLEY 1 N
5192 31 (2) FSS: FARMINGTON
Remarks: Fuel emgcy only, soft when wet.

AIRPORT DIRECTORY

GRAND COUNTY See MOAB

GREEN RIVER Adj W
4120 H42 (1) S5 F4 U-1 FSS: HANKSVILLE
Remarks: P-line E.

HANKSVILLE
HANKSVILLE *IFR* 3 NE
4480 63 (2) BL2 FSS: HANKSVILLE on Fld

SOUTH HANKSVILLE 1 S
4350 42 (1) FSS: HANKSVILLE

HEBER VALLEY 2 SW
5632 H44 (1) FSS: SALT LAKE CITY
Remarks: Rgt tfc SW. Unattended.

HUNTINGTON MUNI 3 NE
5890 40 (2) S1 FSS: HANKSVILLE
Remarks: P-line NW.

HURRICANE 2 SW
3347 H34 (1) FSS: CEDAR CITY
Remarks: Unattended.

JUNCTION 1 N
6074 38 (1) FSS: BRYCE CANYON
Remarks: Soft when wet.

KANAB MUNI 3 S
4856 H53 (1) BL4 F4 FSS: BRYCE CANYON
Remarks: Unattended.

LA SAL
LA SAL Adj S
6800 27 (1) FSS: GRAND JUNCTION
Remarks: Lndg uphill to N. Takeoff S.

LA SAL-JUNCTION 7 W
6000 30 (1) FSS: GRAND JUNCTION
Remarks: Lndg ESE, takeoff WNW.

STOCKS 3 E
7500 25 (1) FSS: GRAND JUNCTION

LOA
WAYNE WONDERLAND 3 SE
7020 H43 (1) F2 FSS: BRYCE CANYON
Remarks: N end NW/SE strip soft when wet.

LOGAN-CACHE 3 NW
4454 H59 (3) BL4 S5 F4 U-1
FSS: SALT LAKE CITY

MANTI-EPHRAIM 4 N
5535 H35 (1) FSS: DELTA

MEXICAN HAT
TEXAS-ZINC MINERALS 7 SW
5315 50 (2) FSS: FARMINGTON

MILFORD MUNI *IFR* 2 N
5050 H50 (1) BL4 S1 F4 FSS: CEDAR CITY

MOAB
GRAND COUNTY 7 SE
4934 H52 (1) S5 F4 FSS: GRAND JUNC

MONTEZUMA CREEK LANDING STRIP
4450 40 (1)

MONTICELLO
SAN JUAN COUNTY 3 N
6996 H48 (1) F4 FSS: GRAND JUNC

MONUMENT VALLEY See GOULDING TRADING POST

MORGAN CO 8 NW
5000 42 (1) FSS: SALT LAKE C

MOUNT PLEASANT 2 SW
5857 47 (1) S1 FSS: DE

NEPHI MUNI 3 NW
5010 H47 (1) BL4 F2 FSS: DE

OGDEN MUNI See Section IV-A

OLJATO Adj E
4838 42 (1) S3 F4 U-1 FSS: FARMIN

PRICE
CARBON COUNTY 3 E
5892 H57 (3) BL4 S5 F4 U-1 FSS: HANKSV
Remarks: E/W strip not usable when wet.

PROVO MUNI 3 SW
4490 H71 (3) BL4 S5 F4, JP5 U-1
FSS: SALT LAKE C

RICHFIELD MUNI 1 SW
5277 H42 (1) S3 F4 U-1 FSS: DE
Remarks: Rgt tfc NNE. 35′ P-line 350′ NNE. 6′ fence 30
SSW.

ROOSEVELT MUNI 2 NE
5107 36 (1) F2 FSS: SALT LAKE C
Remarks: Unattended.

ST GEORGE MUNI 1 SW
2936 H51 (1) BL4 S3 F4 U-1 FSS: CEDAR C

SALINA-GUNNISON 5 N
5170 38 (2) FSS: DEL
Remarks: Attended.

SALT LAKE CITY
SALT LAKE CITY MUNI NO. 1 See Section IV-A

SALT LAKE CITY MUNI NO. 2 9 SW
4608 H56 (3) FSS: SALT LAKE CI
Remarks: Not maintained.

SANDY
ALTA ARPK 2 E
4798 27 (1) FSS: SALT LAKE CITY (LC 524-8
Remarks: Mtns E. Unattended.

AIRPORT DIRECTORY

TH HANKSVILLE See HANKSVILLE

JUAN COUNTY See MONTICELLO

NSH FORK-SPRINGVILLE 2 NW
529 H33 (2) L4 S5 F4 FSS: SALT LAKE CITY

IS See LA SAL

S-ZINC MINERALS See MEXICAN HAT

LE MUNI 1 SW
983 H42 (1) F4 FSS: SALT LAKE CITY

EY 1 S
795 27 (1) FSS: BRYCE CANYON
emarks: Soft-wet. Strip in poor condition.

NTON MUNI 1 W
332 H34 (1) S3 F4 FSS: SALT LAKE CITY

AL 1 SE
259 H66 (1) B*L4 S5 F4 U-1
FSS: SALT LAKE CITY
emarks: Threshold displaced 618' rnwy 16.

ON MUNI 1 NE
511 40 (1) FSS: SALT LAKE CITY
emarks: Fence S.

E WONDERLAND See LOA

OVER
H-LELAND 3 SW
200 25 (1) F2
emarks: Located in Nevada.

WATER 9 NW
800 60 (2)

VERMONT

N See SWANTON

E-MONTPELIER MUNI *IFR* 3 W
157 H45 (2) BL4 S5 F4 U-1
emarks: P-line SSE, SW.

HARBOR See VERGENNES

INGTON MUNI 3 NW
3 H23 (1) *L4 S3 F4 FSS: ALBANY

DL MUNI 1 W
0 21 (2) F2 FSS: MONTPELIER
emarks: Closed winters.

ELL AIRFIELD See CANAAN

INGTON MUNI See Section IV-A

AN
MELL AIRFIELD 4 S
20 20 (1) FSS: MONTPELIER
emarks: Rgt tfc N. Closed winters.

CARNER AIRSTRIP See WILMINGTON

CHAMPLAIN See COLCHESTER

COLCHESTER
CHAMPLAIN 6W
120 19 (2) S3 F4 U-1 FSS: MONTPELIER (LC 878-3393)
Remarks: P-line E.

EAST BERKSHIRE 1 S
410 18 (1) FSS: MONTPELIER
Remarks: Closed winters.

ESTEY ARPK See WAITSFIELD

EQUINOX See MANCHESTER

FAIR HAVEN MUNI 1 NW
370 23 (1) FSS: GLENS FALLS
Remarks: Closed winters.

HARTNESS MUNI See SPRINGFIELD

ISLAND POND STATE 3 SE
1200 27 (1)
Remarks: Attended daylight hours. Watch for deer on rnwy.
Ski acft only during winter months.

MANCHESTER
EQUINOX 1 SE
700 18 (2) S1 F2 FSS: GLENS FALLS
Remarks: Irregular attended. Clsd winters.

MIDDLEBURY 4 SE
490 22 (1) S5 F4 U-1 FSS: GLENS FALLS

MILLER See WINDSOR

MORRISVILLE STOWE-STATE 2 S
732 H27 (1) F2 U-1 FSS: MONTPELIER
Remarks: Fences S.

NEWPORT MUNI *IFR* 3 S
930 H40 (2) BL4 S5 F4 U-1 FSS: MONTPELIER
Remarks: Rnwy lgts on request after 2400.

POST MILLS Adj E
700 23 (1) S5 F4 U-1 FSS: LEBANON
Remarks: P-line NE. Rgt tfc lndg rnwy 5.

RUTHLAND MUNI *IFR* 5 SE
787 H50 (2) BL4 S5 F4 U-1 FSS: GLENS FALLS
VFR ADV: For APP CON See BURLINGTON/MUNI in Section IV-A
Remarks: Use N/S rnwy when calm winds. Rgt tfc rnwy 19. Wind tee tied to rnwy to be used by airlines-may be cross-wind those times.

ST JOHNSBURY MUNI 5 N
814 23 (1) F2 FSS: MONTPELIER
Remarks: Unattended. Closed winters.

SPRINGFIELD
HARTNESS MUNI *IFR* 3 NW
575 H32 (1) *L4 S5 F4 U-1 FSS: LEBANON

AIRPORT DIRECTORY

SWANTON
AUSTIN 1 NE
235 21 (2) S5 F2 FSS: MONTPELIER

VERGENNES
BASIN HARBOR 4 NW
130 29 (1) FSS: MONTPELIER
Remarks: Closed winters.

WAITSFIELD
ESTEY AIRPARK 2 NE
710 27 (1) FSS: MONTPELIER
Remarks: Mtns E SE. Glider operations. Closed winters.

WILMINGTON
CARNER AIRSTRIP Adj N
1725 16 (1) F2 FSS: GLENS FALLS

WINDSOR
MILLER 2 S
340 H15 (1) F4 FSS: LEBANON
Remarks: Unattended.

VIRGINIA

ABINGDON
WASHINGTON CO 3 SW
2070 H28 (1) *L4 F2
Remarks: Unattended.

ACCOMACK COUNTY MUNI See MELFA

ALEXANDRIA
WASHINGTON-VIRGINIA 3 NW
250 H23 (2) *L4 S5 F4
FSS: WASHINGTON (LC DI 7-1442)
Remarks: Special air traffic rules, part 93, subpart C in effect.

AMELIA
HILLTOP 4 N
250 22 (1) F2 FSS: BLACKSTONE
Remarks: P-line W.

ARCOLA
GLASCOCK 1 SW
250 27 (2)

BLACKSBURG
VPI 1 S
2100 H28 (1) S5 F2 U-1 FSS: ROANOKE
Remarks: No operns Sun AM. Rdo twr E.

BLACKSTONE AAF *IFR* 2 E
436 H52 (1) B*L4 FSS: BLACKSTONE on Fld
Remarks: Open for civil use. Rnwy 18 rgt tfc.

BRADSHAW'S ARK See BUCKINGHAM

BREAKS
GRASSY 1 S
1400 19 (1)

BRIDGEWATER ARPK 1 SE
1180 26 (4) S3 F4 FSS: CHARLOTTESVILLE
Remarks: House, P-lines SE.

BUCHANAN CO See GRUNDY

BUCKINGHAM
BRADSHAW'S ARPK 4 NW
500 35 (1) S3 F4 FSS: CHARLOTTESVILLE

BYRD FLYING FLD See RICHMOND, BYRD FLYING FLD in Section IV-A

CATLETT
COSTA 1 NE
250 H56 (1) S5 F4

CENTRAL See WILLIAMSBURG

CHARLOTTESVILLE
CHARLOTTESVILLE-ALBEMARLE 7 N
634 H46 (1) BL4 S5 F4, JP5 U-1
FSS: CHARLOTTESVILLE
UNIV OF VA 5 SE
300 40 (2) S5 F4 U-1
FSS: CHARLOTTESVILLE (LC 296-3

CHASE CITY MUNI 2 W
520 H25 (1) L4 S5 F4 U-1 FSS: BLACKSTONE
Remarks: Soft when wet.

CHESAPEAKE-BRIGGS See GREAT BRIDGE

CLARKSVILLE
MARKS MUNI 2 S
420 H28 (1) U-1 FSS: DANVILLE
Remarks: Irregularly attended.

CLINCHFIELD
COAL CO 1 SW
1530 H32 (1)
Remarks: Unattended. 540' overrun each end.

CLOVER 3 SW
350 25 (1) L4 S5 F2 FSS: DANVILLE
Remarks: P-line SE. Rnwy lgts prior req after 2400.

COAL CO See CLINCHFIELD

COCKES See DENDRON

COSTA See CATLETT

COVINGTON 1 NE
1600 H20 (1) F2 FSS: ROANOKE
Remarks: Fee.

CREWE 1 E
430 22 (1) S3 F4 FSS: BLACKSTONE
Remarks: P-lines NW. Irreg attended.

AIRPORT DIRECTORY

'EPER 2 SW
44 23 (2) S3 F2 U-1 FSS: CHARLOTTESVILLE
!marks: P-line SW. Attended irreg. Ruf.

ON See WELLVILLE

'ILLE MUNI *IFR* 3 E
82 H50 (3) BL4, 6 S3 F4 FSS: DANVILLE on Fld
FR ADV For APP CON DEP CON See GREENSBORO/
GREENSBORO-HIGH POINT NORTH CAROLINA in
Section IV-A
'marks: 143' AGL water tank NW.

·RON
:KES 2 NE
·15 19 (1) F2 FSS: RICHMOND
marks: P-line N.

IN
RIVER VALLEY *IFR* 2 N
105 H48 (1) BL4 S3 F4 U-1 FSS: BLUEFIELD
·FR ADV For APP CON DEP CON See ROANOKE/MUNI
(WOODRUM FLD) in Section IV-A

ES INTL See DISTRICT OF COLUMBIA in Section IV-A

ON 3 NW
100 18 (1) F2 FSS: CHARLOTTESVILLE
emarks: P-line S.

RIA MUNI 3 E
26 H50 (3) L4 S1 F3 FSS: BLACKSTONE

S See GLOUCESTER

'ELL See LYNCHBURG

VILLE MUNI 2 NW
70 20 (2) S3 FSS: BLACKSTONE

ST
' LONDON 7 SW
42 H31 (1) F2 U-1 FSS: ROANOKE (LC EM 6-0011)
emarks: P-line N.

KLIN MUNI *IFR* 3 NE
7 H41 (3) BL4 S3 F4, JP1 U-1 FSS: NEWPORT NEWS

ERICKSBURG
NNON *IFR* 3 S
2 H26 (1) BL4 S5 F5 U-1 FSS: CHARLOTTESVILLE

T ROYAL
IKES FLD 3 W
35 31 (1) S4 F4 FSS: MARTINSBURG
emarks: P-line S.

ER See WINDSOR

OCK See ARCOLA

CESTER
NS 1 S
) 45 (1) FSS: NEWPORT NEWS
emarks: Unattended.

GORDONSVILLE MUNI 1 NE
454 H23 (1) BL2 S5 F2, 4 U-1
FSS: CHARLOTTESVILLE

GRASSY See BREAKS

GREAT BRIDGE
CHESAPEAKE-BRIGGS 3 SE
20 20 (1) F2

GRUNDY
BUCHANAN CO 3 SW
2306 16 (1)

HANOVER ARPK See MECHANICSVILLE

HARRISONBURG
PURE VILLAGE 4 SW
1210 20 (1)

HILLTOP See AMELIA

HOPEWELL 4 E
20 H24 (1) L4 F4 FSS: RICHMOND
Remarks: Rnwy lgts avbl SS-2400, on request thereafter.

HOT SPRINGS
INGALLS FLD *IFR* 3 S
3792 H56 (1) BL4 F4, JP1 U-1 FSS: ROANOKE
Remarks: Fee.

HUMMEL FLD See SALUDA

INGALLS FLD See HOT SPRINGS

JOHNSON FLD See ONANCOCK

KELLAM FLD See WEIRWOOD

KEYSVILLE 1 E
625 18 (1) S2 F2 FSS: BLACKSTONE
Remarks: Unattended.

LAWRENCEVILLE MUNI 3 NE
317 H21 (1) *L2 FSS: BLACKSTONE
Remarks: Irregular attended.

LEESBURG MUNI (GODFREY FLD) 2 SE
388 H35 (1) BL4 U-1 FSS: WASHINGTON
Remarks: Rgt tfc rnwy 17. Gliders weekends.

LEXINGTON 3 SW
1200 25 (1) S1 F2 U-1 FSS: ROANOKE
Remarks: Fee.

LIVELY 3 SW
15 34 (2) L2, 4 F2 FSS: RICHMOND
Remarks: Unattended.

LONESOME PINE See WISE

LYNCHBURG
FALWELL 3 SE
FSS: ROANOKE (LC 846-3942)
Remarks: Irregular attended. Land E to W (uphill).

AIRPORT DIRECTORY

LYNCHBURG MUNI-PRESTON GLEN FLD See Section IV-A

MANASSAS MUNI (HARRY P DAVIS FLD) 3 SE
190 H37 (1) BL4 S5 U-1 FSS: WASHINGTON

MARION WYTHEVILLE
MOUNTAIN EMPIRE 10 NE
2533 H30 (1) B*L4 F4 U-1 FSS: BLUEFIELD
Remarks: Bcn oper by telephone request.

MARKS MUNI See CLARKSVILLE

MARTINSVILLE MUNI 4 SE
800 H20 (1) L4 S4 F4 U-1 FSS: DANVILLE
Remarks: Abrupt drop-off each end of rnwy.

McMATH See ONLEY

MECHANICSVILLE
HANOVER ARPK 5 N
195 27 (2) S3
Remarks: P-line N.

MELFA
ACCOMACK COUNTY MUNI 1 W
48 H70 (1) FSS: SALISBURY

MIDDLEBURG
TURNER 3 SE
530 20 (1) FSS: MARTINSBURG

MIDLAND WARRENTON-FAUQUIER 1 SE
325 28 (1)

MONETA
SMITH MOUNTAIN 5 SE
900 28 (1) FSS: ROANOKE
Remarks: Soft when wet.

MT JACKSON
ZIRKLE 4 SW
1090 19 (1) S2 FSS: MARTINSBURG
Remarks: P-line SW.

MOUNTAIN EMPIRE See MARION WYTHEVILLE

NASA-WALLOPS STATION See WALLOPS ISLAND

NEW KENT See QUINTON

NEW LONDON See FOREST

NEWPORT NEWS P HENRY See Section IV-A

NEW RIVER VALLEY See DUBLIN

NORFOLK MUNI See Section IV-A

NORTHFIELD See RICHMOND

ONANCOCK
JOHNSON FLD 4 E
35 24 (1) F2 FSS: SALISBURY
Remarks: P-line NW.

ONLEY
MC MATH FLD 1 SE
45 28 (1) F2 FSS: SALISBURY
Remarks: P-line NE; Unattended.

ORANGE-COUNTY 3 E
453 H26 (1) FSS: CHARLOTTESVILLE
Remarks: Unattended.

PARNELL See RICHMOND

P HENRY See NEWPORT NEWS, P HENRY in Section IV-A

PETERSBURG MUNI 5 SW
190 H50 (3) L4 S3 F4 U-1 FSS: BLACKSTONE
Remarks: Rnwy lgts oper dusk-2400.

PORTSMOUTH 7 SW
22 H25 (1) S5 F4 U-1
FSS: NEWPORT NEWS (LC MA 7-[illegible]
Remarks: 3500′ strip avail. Soft-wet.

PURE VILLAGE See HARRISONBURG

QUINTON
NEW KENT 2 SE
161 H24 (1) *L4 S5 F2 U-1 FSS: RICHMOND

RECTORTOWN
WILSON 1 SW
600 35 (2) F2 FSS: MARTINSBURG

RICHLANDS MUNI 2 W
1910 H19 (1) L4 S1 F4 U-1 FSS: BLUEFIELD

RICHMOND
BYRD FLYING FLD See Section IV-A

NORTHFIELD 6 N
197 H25 (1) BL4 S5 F4 U-1
FSS: RICHMOND (LC RE 7-8[illegible]
Remarks: 3000′ strip avail.

PARNELL 4 S
120 27 (1) S5 F4 FSS: RICHMOND (LC RE 7-8[illegible]

VIRGINIA STATE POLICE 3 SW
306 18 (1) F2 FSS: RICHMOND (LC RE 7-8[illegible]
Remarks: SE blkd.

ROANOKE MUNI (WOODRUM FLD) See Section IV-A

SHENANDOAH VALLEY See STAUNTON

SMITH MOUNTAIN See MONETA

SALUDA
HUMMEL FLD 6 E
30 H25 (1) F4

SHANNON See FREDERICKSBURG

AIRPORT DIRECTORY

IANDOAH Adj SW
:50 24 (1) *L3 S1 F2 FSS: CHARLOTTESVILLE
Remarks: Unattended.

H BOSTON
CK 3 NE
10 H31 (1) L4 FSS: DANVILLE
Remarks: Lgts on prior req after 2400. Irregularly attended.

H HILL MUNI 2 SW
10 H22 (1) FSS: BLACKSTONE

H NORFOLK 3 S
0 32 (2) S5 F4 FSS: NEWPORT NEWS (LC MA 7-7084)
emarks: P-line W.

NTON
ENANDOAH VALLEY 10 NE
186 H50 (1) BL4 S1 F4 U-1
FSS: CHARLOTTESVILLE

ES FIELD See FRONT ROYAL

OLK MUNI 3 SW
1 H50 (3) S5 F4 U-1 FSS: NEWPORT NEWS

AHANNOCK MUNI 1 SW
) H30 (1) FSS: RICHMOND
emarks: 125' water twr near SW end of rnwy.

See SOUTH BOSTON

ER See MIDDLEBURG

OF VIRGINIA See CHARLOTTESVILLE

See BLACKSBURG

IIA STATE POLICE See RICHMOND

OPS ISLAND
A-WALLOPS STATION *IFR* on Island
H80 (3) *L6 F3, 5
marks: Restricted, official business only; not open to public.

ENTON-FAUQUIER See MIDLAND

IGTON CO See ABINGDON

IGTON-VIRGINIA See ALEXANDRIA

ELY MUNI 2 NW
5 44 (2) S1 FSS: RICHMOND
marks: Unattended.

SBORO 3 W
)0 H20 (1) BL4 S3 F4 U-1
FSS: CHARLOTTESVILLE
narks: Rnwy lgts on prior request after 2300.

)OD
_AM FLD Adj SW
21 (2) *L4 S5 F2 FSS: SALISBURY

WELLVILLE
DALTON 1 NE
400 28 (1)

WEST POINT MUNI *IFR* 2 SE
24 H50 (3) *L4 FSS: RICHMOND
Remarks: Unattended.

WILLIAMSBURG
CENTRAL 3 N
105 42 (2) S5 F4 U-1
FSS: NEWPORT NEWS (LC 877-0200, 877-0209)
Remarks: P-line SW.

WILSON See RECTORTOWN

WINCHESTER MUNI *IFR* 3 SE
700 H36 (1) L4 S5 F4 U-1
FSS: MARTINSBURG (LC 622-2061)

WINDSOR
GARNER 4 NE
80 25 (1) FSS: NEWPORT NEWS

WISE
LONESOME PINE 5 NE
2670 H40 (1) *L4 S3 F4 U-1
Remarks: Large knob S of rnwy projects into 7:1 glide slope.

WOODBRIDGE 3 NW
300 22 (1) S3 F2 FSS: WASHINGTON
Remarks: P-line S.

ZIRKLE See MT JACKSON

WASHINGTON

AERO PLAZA See OLYMPIA

ALMIRA
"J-Z" 1 N
1950 21 (1) FSS: EPHRATHA

WILLIAMS GROVE 5 NE
2150 25 (1) FSS: EPHRATA
Remarks: P-line S. Attended summers.

ANACORTES
ANACORTES 2 W
229 11 (1) F2 FSS: BELLINGHAM
Remarks: Unattended.

SKYLINE 3 W
22 17 (1) L4 F2, 4 FSS: BELLINGHAM
Remarks: 300' overrun on NW end. Rgt tfc ldg rnwy 30.

ANDERSON FIELD See BREWSTER

APEX ARPK See SILVERDALE

ARLINGTON
ARLINGTON 3 SW
138 H49 (2) L4 S5 F4 U-1 FSS: SEATTLE

AIRPORT DIRECTORY

CANADAY 4 NE
350 26 (1) F2 FSS: SEATTLE
Remarks: Attended daily.

ASHFORD
HEWITT 1 E
1800 25 (1) F2
Remarks: P-line E.

ASOTIN COUNTY See CLARKSTON

ASPLUND FLD See EATONVILLE

AUBURN
EVERGREEN 4 W
384 18 (1) L4 S5 F2 FSS: SEATTLE
Remarks: Lgts E side of rnwy only.

AVEY STATE EMERGENCY See LAURIER

BANDERA-EMERGENCY Adj S
1636 24 (1) FSS: SEATTLE
Remarks: Clsd winters.

BAKER See MT VERNON

BAYVIEW See BURLINGTON

BEARDSLEY See PROSSER

BEEBE 1 N
750 19 (1) FSS: WENATCHEE

BELLEVUE AIRFLD 4 SE
345 H22 (1) BL4 S5 F4 U-1 FSS: SEATTLE (DL)
Remarks: Rgt tfc SW; rnwy lgts prior req 3 hrs after sunset.

BELLINGHAM MUNI *IFR* 3 NW AOE
158 H50 (3) BL4, 6 S5 F4 FSS: BELLINGHAM on Fld
Remarks: SW portion rnwy 2-20 from int rnwy 12-30 open to acft up to 23,000 lbs GWT. NE portion open for taxiing only.

BLAINE 1 E
66 17 (1) FSS: BELLINGHAM

BLAKELEY ISLAND See THATCHER

BOEING FLD See SEATTLE, BOEING FLD in Section IV-A

BOWERMAN See HOQUIAM

BREMERTON

KITSAP COUNTY *IFR* 7 SW
482 H50 (2) BL4 S5 F5, JP4 U-1 FSS: SEATTLE
VFR ADV: For APP CON/DEP CON See SEATTLE/SEATTLE TACOMA INTL in Section IV-A

BREWSTER
ANDERSON FIELD 3 E
1000 32 (1) FSS: WENATCHEE
Remarks: Unattended.

GEBBERS FLD 1 NE
900 18 (1) FSS: WENATC-E
Remarks: P-lines E, W.

BROADVIEW FARM See SUNNYSIDE

BURLINGTON
BAYVIEW 3 W
140 H53 (2) L4 S3 U-1 FSS: BELLING-A

CAMAS
GROVE'S FLYING SERVICE 3 N
420 24 (1) S5 F2 FSS: PORTLAN
Remarks: Pole E.

CANADAY See ARLINGTON

CARSON Adj S
510 15 (1) F2 FSS: THE DALLE

CASHMERE-DRYDEN 1 SW
860 H18 (1) L4 F3 FSS: WENATCHE
Remarks: P-line E. Unattended.

CHANDLER See PREYOST (STUART I)

CHEHALIS COUNTY-CITY 1 NW
174 H50 (2) BL4 S3 F4 U-1 FSS: TOLED
Remarks: Twr NE. Attended 0800-1900 daily.

CHELAN
LIES FLD 4 NE
1250 H36 (2) FSS: WENATCHE
Remarks: P-line S.

CLALLAM CO See PORT ANGELS

CLARKSTON
ASOTIN COUNTY Adj N
760 36 (1) S5 F3 FSS: WALLA WALL
Remarks: Rgt tfc E. High obstns 2000' E.

CLE ELUM
CLE ELUM 2 E
1930 25 (1) L4 F2 FSS: WENATCHE
Remarks: Clsd winters. Rgt tfc NE. Unattended.

DE VERE 3 E
1800 20 (1) S3 F2 FSS: WENATCHE
Remarks: Land at own risk.

COLFAX
WHITMAN CO MEML 3 SW
2171 23 (1) F2 FSS: SPOKAN

COLLEGE PLACE
MARTIN FLD 1 W
750 26 (1) L4 S5 F4 U-1
FSS: WALLA WALLA (LC JA 9-'4

COLVILLE MUNI 1 E
1878 H24 (1) BL 4 F2 FSS: SPOKAN
Remarks: Unattended.

AIRPORT DIRECTORY

RETE MUNI 1 SW
4 22 (1) F2 FSS: BELLINGHAM
marks: Rgt tfc W. Unattended.

ELL 1 S
0 24 (1)

.IS BEACH-STATE EMGCY 1 NW
50 (1) FSS: HOQUIAM
marks: Not usable at hi-tide; drift wood; unattended.

NG See HOQUIAM

:E CITY 2 E
00 33 (1) FSS: EPHRATA

:W
LEW Adj W
50 27 (1) FSS: EPHRATA
marks: P-line E.

LEW LAKE AIRSTRIP See REPUBLIC

NGTON MUNI Adj NW
5 25 (1) FSS: BELLINGHAM
marks: Unattended. Clsd winters when snow on rnwys.

IPORT 1 W
25 27 (2) FSS: SPOKANE
marks: NE end rolling. Soft-wet; winter months.

PARK MUNI 2 NE
00 H61 (3) FSS: SPOKANE

RE See CLE ELUM

D RANCH STRIP See RITZVILLE

HY SCOTT See OROVILLE

N STATE EMERGENCY 1 NW
21 29 (1) L4 FSS: WENATCHEE
marks: Closed winters.

VILLE
UND FLD 5 W
20 (1) FSS: SEATTLE
marks: Land falls away both ends.

SON FLD Adj NE
20 (1) FSS: SEATTLE
marks: P-line S.

JUND
.S ISLAND 1 N
22 (1) L4 U-1 FSS: BELLINGHAM

S FLD See PULLMAN

RIC CITY 1 SW
0 23 (1) FSS: EPHRATA

SLAND On Island
14 FSS: BELLINGHAM

ELLENSBURG MUNI *IFR* 2 N
1766 H58 (2) BL4 F4 U-1 FSS: WENATCHEE (DL)

EPHRATA MUNI *IFR* 2 SE
1272 H73 (3) BL4 S5 F4 FSS: EPHRATA on Fld
VFR ADV: LARSON APP CON 118.1, 122.5 (R) DEP CON 118.1

EVERETT PAINE FLD See Section IV-A

EVERGREEN
EVERGREEN See AUBURN

EVERGREEN FLD See VANCOUVER

FAIRWEATHER See REPUBLIC

FELTS FLD See SPOKANE

FERRELL FLD See POMEROY

FLYING L RANCH See GLENWOOD

FORKS 1 SW
295 24 (1) L4 F2 U-1 FSS: HOQIAM
Remarks: Rgt tfc WSW. Lgts also avbl by forks of quillayute unicom.

FRAN-N-ANN ARPK See PORT TOWNSEND

FRIDAY HARBOR
FRIDAY HARBOR Adj SE AOE
120 H23 (2) *L4 S5 U-1 FSS: BELLINGHAM
Remarks: P-line end bldg each end. Rnwy lgts on 15-33 avbl emgcy.

SPIEDEN ISLAND 8 NW
180 21 (1) FSS: BELLINGHAM

GEBBERS FLD See BREWSTER

GLENWOOD
FLYING L RANCH 1 E
1900 19 (1) L3 F2 FSS: THE DALLES
Remarks: Fence NE, SW.

GOLDENDALE 1 NW
1600 17 (1) FSS: THE DALLES

GOVAN
SHEFFELS 5 NE
2250 17 (1) F2

GRANITE FALLS
GREEN VALLEY AIRFLD 3 NW
300 15 (1) F2 U-1
Remarks: Avoid bldgs S. P-line NW.

GREEN VALLEY AIRFLD See GRANITE FALLS

GROVE'S FLYING SERVICE See CAMAS
HANES See HARRINGTON

HARRAH 3 W
900 26 (1) FSS: YAKIMA

AIRPORT DIRECTORY

HARRINGTON
HANES 1 NE
2200 H25 (1) F2 FSS: SPOKANE
Remarks: Unattended.

HEWITT See ASHFORD

HITCHCOCK AIRSTRIP See WHITE SWAN

HOLLENBECK AIRSTRIP See TROUT LAKE

HOQUIAM
BOWERMAN *IFR* 2 W
14 H50 (1) BL4 S3 F4, JP4 FSS: HOQIAM on Fld

CORNING 11 NW
2 19 (1) L4 F2 U-1 FSS: HOQIAM

INTERCITY USFS See WINTHROP

IONE MUNI 2 S
2107 27 (1) FSS: SPOKANE

ISSAQUAH
PECKS 3 NW
12 (1)

J-Z See ALMIRA

KELSO-LONGVIEW 1 SE
25 H35 (1) BL4 S5 F4 U-1 FSS: TOLEDO

KENNEWICK
VISTA FLD 3 W
521 H35 (2) L4 S5 F4 FSS: WALLA WALLA

KENT ARPK 2 S
30 H29 (1) F2 FSS: SEATTLE (LC CH 3-4200)
Remarks: Attended. Dalgt hrs. P-line N.

KITSAP COUNTY See BREMERTON

KUNZ AIRSTRIP See WILBUR

LAKE WENATCHEE See LEAVENWORTH

LA CROSSE MUNI 2 SW
1491 37 (2) L2 F2 FSS: SPOKANE
Remarks: SE end rnwy 30, W end rnwy 4 ruf. Circle town for lgts.

LANGLEY
WOOD 2 NW
290 24 (1)

LAURIER
AVEY STATE EMERGENCY 2 N
1655 20 (1) F4 U-1
Remarks: Attended dalgt hrs.

LEAVENWORTH
LAKE WENATCHEE 14 NW
1916 25 (1) FSS: WENATCHEE
Remarks: Closed winters. Turbulent air close to gnd.

LESTER 1 NE
1693 22 (1) FSS: SEATT
Remarks: Clsd winters.

LIES FLD See CHELAN

LIND 1 NE
1478 23 (1) S1 FSS: SPOKA
Remarks: Emergency use only.

LONGVIEW 2 SE
20 30 (1) FSS: TOLE
Remarks: Rgt tfc to SE.

LOPEZ ISLAND 2 S
160 26 (1) L4 FSS: BELLINGH
Remarks: Center 1400' of rnwy lgtd.

LOST RIVER RESORT See MAZAMA

LOWRY MU See NORTHPORT

LYNDEN Adj N
120 25 (1) S1 F2 FSS: BELLINGH
Remarks: P-lines, houses E, W. Soft-wet.

MANSFIELD MUNI Adj SE
2270 23 (1) FSS: EPHRA
Remarks: P-line SE.

MARTIN FLD See COLLEGE PLACE

MASON COUNTY See SHELTON

MAZAMA
LOST RIVER RESORT 5 NW
2415 32 (1) FSS: WENATCH
Remarks: Unattended. Rgt tfc E.

MEAD-FLYING SERVICE 1 N
1935 25 (2) S3 F2 FSS: SPOKANE (LC KE 5-29
Remarks: P-line NE.

METALINE FALLS
SULLIVAN LAKE USFS 4 SE
2590 21 (1) FSS: SPOKA
Remarks: P-line N.

MINERAL AIRSTRIP 1 NE
1400 14 (1) F2 FSS: TOL
Remarks: Rgt tfc SSW.

MONTESANO
SUMMIT FLD 2 W
145 27 (1) S1 FSS: HOQ

MOSES LAKE
MOSES LAKE MUNI 2 NE
1200 H18 (1) L4 S5 F4 U-1 FSS: EP

MOSES LAKE-SKY RCH 7 W
1190 21 (1) S5 F2 FSS: EP

AIRPORT DIRECTORY

RHON
KER 3 S
20 (1) S5 F4 FSS: BELLINGHAM

I CREEK-EMERGENCY Adj S
70 20 (1)
marks: Rgt tfc W. Clsd winters.

)RT MUNI 1 W
50 29 (1) FSS: SPOKANE
marks: Rgt tfc E.

IPORT
RY MUNI 1 N
57 25 (1) FSS: SPOKANE

A 1 NE
25 24 (1) F2 FSS: EPHRATA
marks: P-line SW. Unattended.

)GAN-LEGION 1 E
61 H25 (1) L4 S5 F4 FSS: WENATCHEE
marks: Rgt tfc WSW.

)IA
O PLAZA 4 SE
.0 19 (1) FSS: SEATTLE
marks: P-line SSW, NE.

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dPIA MUNI *IFR* 4 S
.5 H50 (3) BL4 S5 F4 U-1 FSS: SEATTLE
:R ADV: McCHORD APP CON 126.5, 121.1, 125.4, 120.1, 122.6 (R) 109.6 (T), DEP CON 126.5, 121.1, 120.1.

(4 N
)1 H46 (1) BL4 FSS: WENATCHEE
marks: Rnwy lgts avbl dusk-1:00 AM.

ACRES 1 S
) 18 (2) F2 U-1 FSS: WENATCHEE
marks: Unattended.

ISLAND See EAST SOUND

RDS
)LL'S 6 NE
1 38 (1) S5 F2 FSS: PORTLAND
marks: P-line W, E.

.LE
)THY SCOTT 2 NE AOE
)3 47 (1) L4 F4 FSS: WENATCHEE
marks: Rgt tfc S. Unattended.

LO MUNI 4 SE
)5 18 (1)

ADOWS See SPOKANE

OOD-EMERGENCY Adj W
)3 20 (1) FSS: TOLEDO
marks: Clsd winters; unattended; soft when wet.

PAINE FLD See EVERETT, PAINE FLD in Section IV-A

PANGBORN FLD See WENATCHEE

PEARSON ARK See VANCOUVER

PECKS See ISSAQUAH

PIPER See WILBUR

PASCO-PUBLIC *IFR* 3 N
403 H49 (4) BL4 S5 F4 FSS: WALLA WALLA

POMEROY
FERRELL FLD 1 NE
2349 18 (1) F2 FSS: WALLA WALLA
Remarks: P-line W.

PORT ANGELES
CLALLAM CO *IFR* 3 NW
290 H52 (2) BL4 S5 F4 FSS: SEATTLE

PORT ORCHARD 7 S
370 28 (1) S5 F2 FSS: SEATTLE

PORT TOWNSEND
FRAN-N-ANN ARPK 5 S
120 16 (1) L2 F2 FSS: SEATTLE
Remarks: Irregularly land W at ngt.

PORT TOWNSEND COUNTY-CITY 4 SW AOE
110 28 (1) L2 S3 F2 FSS: SEATTLE
Remarks: P-line S, E. Rgt tfc ESE.

PREVOST (STUART I)
CHANDLER FLD On Island
20 25 (1)
Remarks: Soft when wet. 300' overrun W end.

PROSSER
BEARDSLEY 1 NW
694 37 (2) BL4 S5 F4 U-1 FSS: YAKIMA
Remarks: P-line NE.

PULLMAN
EGGERS FLD 2 NW
2450 20 (1) FSS: SPOKANE

PULLMAN-MOSCOW REGIONAL *IFR* 3 NE
2551 H49 (1) BL4 S5 F4 FSS: SPOKANE
Remarks: Acft over 12,500 lbs rstd to paved areas.

PUYALLUP
THUN FLD 5 S
520 H33 (1) BL4 S5 F4 U-1 FSS: SEATTLE
Remarks: Bcn oper SS-2300. NE blkd. 240' gravel overrun at N end, 120' at S end.

RENTON MUNI See SECTION IV-A

REPUBLIC
CURLEW LAKE AIRSTRIP 6 NE
2500 18 (1) FSS: EPHRATA
Remarks: Open Apr 15-Nov 15.

AIRPORT DIRECTORY

FAIRWEATHER 1 S
2375 23 (1) S3 F2 FSS: EPHRATA
Remarks: Rgt tfc NNW; use S 200′ emerg only; unattended.

RICHLAND 2 N
393 H40 (3) BL4 S5 F4 FSS: WALLA WALLA
Remarks: Pole apch rnwy 7.

RIMROCK
TIETON 2 S
2980 24 (1) FSS: YAKIMA
Remarks: Land NE; tk-off SW. Soft-wet. Clsd Nov-May.

RITZVILLE
DEWALD RANCH STRIP 7 SW
1880 17 (1) L4 FSS: SPOKANE
Remarks: Fuel emgcy. Unattended.

RITZVILLE Adj W
1800 23 (1) F4 FSS: SPOKANE
Remarks: Tower W. P-line NE.

ROCHE HARBOR Adj E
100 37 (1) FSS: BELLINGHAM

ROSALIA MUNI 2 W
2170 26 (1) F2 FSS: SPOKANE
Remarks: 500′ hill NE. Unattended.

SCHOLL'S See ORCHARDS

SEATTLE
SEATTLE BOEING FLD See Section IV-A

SEATTLE-TACOMA INTL See Section IV-A

SEKIU Adj W
350 20 (1) FSS: SEATTLE
Remarks: Trees apch to rnwy 8.

SHADY ACRES See SPANAWAY

SHEFFELS See GOVAN

SHELTON
MASON COUNTY 3 NW
278 H50 (2) BL4 S3 F4 U-1 FSS: SEATTLE

SILVERDALE
APEX ARPK 1 NW
525 26 (1) S4 F4 FSS: SEATTLE
Remarks: Rgt tfc NNE. Rd crosses strip.

SKY ACRES See OMAK

SKYKOMISH EMERGENCY 1 E
998 20 (1) FSS: SEATTLE
Remarks: Clsd winters. Rgt tfc to W.

SKYLINE See ANACORTES

SNOHOMISH AIRFLD 1 SW
16 18 (2) L4 S5 F4 U-1 FSS: SEATTLE (DL)
Remarks: Pole NW.

SOAP LAKE MUNI 3 N
1170 22 (2) FSS: EPHRATA
Remarks: P-line SE.

SOUTH BEND
WILLAPA HARBOR 2 N
16 H30 (1)

SOUTH TACOMA See TACOMA

SPANAWAY
SHADY ACRES 3 SE
425 18 (1) U-1 FSS: SEATTLE
SPANAWAY 1 S
385 22 (1) L4 S5 F4 FSS: SEATTLE (LC FUS 24)

SPIEDEN ISLAND See FRIDAY HARBOR

SPOKANE
FELTS FLD *IFR* 3 E
1953 H45 (1) BL4 S5 F4 U-1 FSS: SPOKANE INTL
VFR ADV: For APP CON, DEP CON See SPOKANE INTL in Section IV-A
Remarks: Men and eqpmt on field days.

OX MEADOWS 4 S
2345 19 (1) FSS: SPOKANE
Remarks: P-lines N, S.

SPOKANE INTL See Section IV-A

SULLIVAN LAKE USFS See METALINE FALLS

SUMMIT FLD See MONTESANO

SUNNYSIDE
BROADVIEW FARM 4 N
1100 H17 (1) L4 FSS: YAKIMA
Remarks: All lndgs to N, tk-offs to S.

SUNNYSIDE MUNI 2 NE
787 H23 (1) L4 F4 FSS: YAKIMA

SWANSON FLD See EATONVILLE

TACOMA
SOUTH TACOMA 3 W
235 34 (1) *L4 S5 F4 FSS: SEATTLE (LC FUS 24)
Remarks: P-line S. Pilots not familiar with fld, do not use at night.

TACOMA 3 W
375 H24 (1) L2 S5 F4 U-1
FSS: SEATTLE (LC FUS 24)
Remarks: Both ends of NNE/SSW strip drop 20′.

TACOMA-INDUSTRIAL *IFR* 4 W
290 H50 (1) BL4 S5 F4 U-1 FSS: SEATTLE
VFR ADV: McCHORD APP CON 120.1, 126.5, 125.4, 122.6 (R) DEP CON 120.1, 126.5, 121.1
Remarks: Rgt tfc lndg S.

AIRPORT DIRECTORY

)A
.LARD FLD 2 E
503 18 (1) S5 F4 FSS: SPOKANE

'CHER
AKELEY ISLAND 2 N
0 23 (1) L4

FLD See PUYALLUP

)N See RIMROCK

DO-WINLOCK MUNI *IFR* 3 NE
71 H50 (1) BL2 S1 F3 FSS: TOLEDO on Fld
FR ADV: SEATTLE CENTER APP CON 134.95, 126.6, 120.3,
DEP CON 134.95, 125.6, 120.3.

AKET MUNI 2 NW
250 40 (1) F2 FSS: WENATCHEE
emarks: P-lines SSE. Rgt tfc SSE. Soft sand 1300' N.
Clsd in spring.

T LAKE
.LENBECK AIRSTRIP Adj NW
)50 H16 (1) F2 FSS: THE DALLES

' MUNI 2 SE
597 27 (1) FSS: WENATCHEE
emarks: P-line ESE. Apch rnwy 10 blkd by trees.

OUVER
:RGREEN FLD 4 E
0 26 (1) S5 F2 FSS: PORTLAND

.RSON ARPK Adj SW
) 36 (2) L4 S5 F4 U-1 FSS: PORTLAND (DL)

)N ISLAND 1 NW
'0 20 (1) FSS: SEATTLE

FLD See KENNEWICK

A WALLA CITY-COUNTY *IFR* 3 NE
05 H72 (3) BL4, 6 S5 F5, JP4
FSS: WALLA WALLA on Fld

'UCNA 1 S
00 27 (1) S1 F2 FSS: SPOKANE
marks: Fld surd by mtns.

RVILLE 1 NE
60 28 (1) L4 S3 F3 FSS: WENATCHEE
marks: P-line SW. Unattended.

TCHEE
GBORN FLD *IFR* 4 SE
45 H46 (3) BL4 S3 F4 FSS: WENATCHEE on Fld
marks: Hill E. unlgtd water tank S of apch. end rnwy 25.

'ORT 1 N
14 (1) FSS: HOQUIAM
marks: P-line NW. Clsd winters.

WHITE SALMON 1 NW
850 19 (1) L3 S1 U-1
Remarks: P-line E.

WHITMAN CO MEML See COLFAX

WHITE SWAN
HITCHCOCK AIRSTRIP 1 W
1000 28 (1) L4 F4 FSS: YAKIMA
Remarks: Unattended.

WILBUR
KUNZ-AIRSTRIP 5 NE
2375 16 (1) FSS: E HRATA
Remarks: Land NE, tk-off SW. P-line N, NE. Rollin:, land at own risk.

WILLARD FLD See TEKOA

WILLIAMS GROVE See ALMIRA

PIPER 3 S
2175 23 (1) FSS: EPHRATA

WILBUR 2 SW
2175 30 (1) *L4 S5 F3 U-1 FSS: EPHRATA
Remarks: P-line NE.

WILLAPA HARBOR See SOUTH BEND

WILSON CREEK Adj E
1460 20 (1) FSS: EPHRATA

WINTHROP
INTERCITY USFS 3 SE
1650 30 (1) L4 F2 FSS: WENATCHEE
Remarks: Unattended. Snow on fld Nov-Apriv. Heavily loaded acft making straight out dptrs and long final apchs all dalgt hrs May through Sept.

WOOD See LANGLEY

YAKIMA MUNI See Section IV-A

WEST VIRGINIA

ANSTED (VICTOR)
LEE MASSEY 2 E
1700 12 (2) FSS: CHARLESTON
Remarks: Advise using rnwy 16-34 from N only.

BECKLEY
RALEIGH CO MEML *IFR* 3 E
2504 H50 (1) BL4 S3 F4 U-1 FSS: CHARLESTON
VFR ADV For APP CON, DEP CON See CHARLESTON/KANAWHA in Section IV-A
Remarks: Sharp dropoff both ends rnwy.

BENEDUM See CLARKSBURG

BENNETT FLD See WESTON

AIRPORT DIRECTORY

BERKELEY SPRINGS
POTOMAC ARPK 4 NE
400 38 (1) *L4 F4 FSS: MARTINSBURG
Remarks: Rgt tfc. Rnwy 29.

BLUEFIELD
MERCER CO *IFR* 4 NE
2857 H47 (1) BL4 S3 F4 FSS: BLUEFIELD on Fld
VFR ADV For APP CON DEP CON See ROANOKE/MUNI (WOODRUM FLD) in Section IV-A
Remarks: Fuel dalgt hrs only.

BUCKHANNON
LEWIS FLD 2 W
1435 16 (1) S1 FSS: ELKINS
Remarks: 4' hi fence around fld. Unattended.

C.A.P. See NEW MARTINSVILLE

CHARLESTON KANAWHA See Section IV-A

CHARLES TOWN 3 NE
510 26 (1) S4 F4 U-1 FSS: MARTINSBURG

CLARKSBURG
BENEDUM *IFR* 5 NE
1209 H37 (1) BL4 S5 F4 FSS: MORGANTOWN
Remarks: Fence S E.

PATTON FLD 6 SE
1000 15 (1) FSS: ELKINS

CULLODEN Adj SE
690 20 (1) F4 FSS: HUNTINGTON

CUMBERLAND MUNI See CUMBERLAND, MARYLAND

ELKINS-RANDOLPH CO *IFR* 2 S
1987 H45 (2) BL4 F4 FSS: ELKINS on Fld
Remarks: P-line SW; ctc EKN rdo prior lndg.

FAIRMONT MUNI 2 SE
1080 34 (1) FSS: MORGANTOWN

FAYETTEVILLE
FAYETTE 2 SW
2025 17 (1) S5 F2 FSS: CHARLESTON
Remarks: Rgt tfc tk-off N. Rolling

FORMAN FLD See TERRA ALTA

GLENDALE 1 W
640 27 (1) L4 S3 F2 U-1
FSS: WHEELING (LC CR 7-1252)
Remarks: Fee.

GREENBRIER See WHITE SULPHUR SPRINGS

HERRON See NEW CUMBERLAND

HINTON-ALDERSON See PENCE SPRINGS

HUNTINGTON
HUNTINGTON-DOWNTOWN See CHESAPEAKE, OHIO

TRI-STATE, WALKER LONG FLD See Section IV-A

KEYSER
MILLER FLD 4 SW
975 17 (1) FSS: MARTINSBU
Remarks: Soft when wet.

LEE MASSEY See ANSTED (VICTOR)

LEWIS FLD See BUCKHANNON

MARSHALL See NEW CUMBERLAND

McDONALD FLD See TAPLIN

MERCER CO See BLUEFIELD

KANAWHA See CHARLESTON, KANAWHA Section IV-A

MILLER FLD See KEYSER

MARTINSBURG MUNI See Section IV-A

MOOREFIELD MUNI 1 E
980 28 (1) FSS: ELK
Remarks: Fence NW. Unattended.

MORGANTOWN MUNI *IFR* 2 NE
1256 H52 (2) BL2 S1 F4 FSS: MORGANTO

NEW CUMBERLAND
HERRON 3 NE
1250 21 (1) S5 F2 FSS: WHEEL
Remarks: Rd crosses NE/SW, NW/SE strips.

MARSHALL 1 S
960 20 (2) L FSS: WHEEL
Remarks: P-lines N.

NEW MARTINSVILLE
C.A.P. 3 N
620 27 (1) FSS: PARKERSBU
Remarks: Rdo twr SE.

OHIO CO See WHEELING, OHIO CO in Section IV-A

PARKERSBURG
STEWART ARPK 2 NE
602 33 (1) S5 F4 U-1
FSS: PARKERSBURG (LC 485-4

WOOD COUNTY *IFR* 6 NE
858 H51 (3) BL4, 6 S5 F4, JP1
FSS: PARKERSBURG
Remarks: Ctc PKB rdo prior to lndg.

PATTON FLD See CLARKSBURG

PENCE SPRINGS
HINTON-ALDERSON 4 SW
1520 28 (1) F2 FSS: BLUEF
Remarks: Ridge E, W. Unattended.

AIRPORT DIRECTORY

ERSBURG 1 W
45 27 (1) BL2 FSS: ELKINS

PPI
PSON 3 S
)00 15 (1) F2 FSS: ELKINS

MAC See BERKELEY SPRINGS

ETON MUNI 2 SW
450 27 (1) L4 S5 F2 FSS: BLUEFIELD
marks: Unmrkd row of lgts S edge of strip. P-line & ant E of rnwy.

R See RUSSELLVILLE

GH CO MEML See BECKLEY

OOD MUNI 6 NW
40 32 (1) L4 F4 FSS: CHARLESTON
marks: Bldg NE; P-line on hill E. Soft wet.

E COUNTY See SPENCER

LLVILLE
ER Adj W
00 15 (1) FSS: CHARLESTON
marks: Soft when wet.

ON See PHILIPPI

ER
NE COUNTY 1 SE
3 18 (1) L4 F4 FSS: PARKERSBURG
marks: Attended weekends and evenings. Rnwy lgts dusk-2400.

RT ARPK See PARKERSBURG

RSVILLE 3 NE
40 18 (1) L4 S1 F2 FSS: CHARLESTON
marks: P-line N. Unattended. Soft, unsafe when wet. Lgts oper until 1:00 AM.

N 3 NE
54 31 (1) BL2 FSS: ELKINS
marks: P-line SW.

N
ONALD FLD Adj SE
) 35 (1) S5 F2 FSS: BLUEFIELD
marks: Use only if familiar with fld. Unattended.

L ALTA
MAN FLD 1 N
50 18 (1) FSS: MORGANTOWN
marks: P-line N. Unattended. Closed winters.

ATE, WALKER LONG FLD See HUNTINGTON, TRI-TE, WALKER LONG FLD in Section IV-A

ON 3 N
45 H23 (1) S5 F2 FSS: WHEELING

WELCH MUNI 3 SE
2118 H27 (1) BL4 S1 F3 U-1 FSS: BLUEFIELD
Remarks: Rnwy lgts operate dusk to 2300 hrs. Use rnwy 27 only when wind is westerly above 15 MPH.

WESTON
BENNETT FLD 3 N
1020 34 (1) FSS: ELKINS

WHEELING OHIO CO See Section IV-A

WHITE SULPHUR SPRINGS
GREENBRIER *IFR* 2 SW
1801 H44 (1) L4 S5 F4 U-1 FSS: ROANOKE
VFR ADV For APP CON, DEP CON See ROANOKE/MUNI (WOODRUM FLD), VIRGINIA in Section IV-A
Remarks: Rgt tfc E. Fee for multi-eng acft. 5200' strip avail. Rnwy lgts operg on request Nov-Apr dusk-dawn Apr-Nov.

WILEY FORD CUMBERLAND MUNI See CUMBERLAND, MARYLAND

WOOD COUNTY See PARKERSBURG

WISCONSIN

ADAMS CO LEGION FLD See FRIENDSHIP

AERO PARK See MENOMONEE FALLS

AIR CITY See STURTEVANT

ALEXANDER FLD SOUTH WOOD COUNTY See WISCONSIN RAPIDS

ANGELO MUNI See SPARTA

ANTIGO MUNI 2 NE
121 H30 (1) BL4 S5 F4 FSS: WAUSAU

APPLETON
OUTAGAMIE CO 2 NE
750 H37 (1) BL4 S5 F4 FSS: GREEN BAY
Remarks: P-line NW.

ARBOR VITAE
LAKELAND 3 W
1603 H36 (2) L4 F2, 4
Remarks: Attended May thru Nov.

ARCADIA 4 NE
750 24 (1) FSS: LACROSSE

ARROWHEAD See RICE LAKE

ASHLAND
JOHN F KENNEDY MEM'L 2 SW
826 H36 (2) BL4 F4 U-1 FSS: HIBBING

AUSTIN-STRAUBEL See GREENBAY, AUSTIN-STRAUBEL in Section IV-A

BAILEYS HARBOR
SKY HARBOR Adj NW
640 25 (2)
Remarks: P-line S end.

753-036 O - 64 - IV 8

AIRPORT DIRECTORY

BALDWIN Adj SW
1100 26 (1) F2 FSS: MINNEAPOLIS
Remarks: P-line S. RR N end.

BARABOO
BELL AERO SERVICE 4 NW
980 35 (2) S1 F2 FSS: LONE ROCK

BARNES
EAU CLAIRE LAKE Adj E
1210 25 (1) F2

BARRON MUNI 1 NE
1110 26 (2) F4 FSS: EAU CLAIRE
Remarks: Bldgs and ants W end. 170' grain elevator ½ mi SW; fences N and S.

BEAVER DAM
SKYWAY 1 W
885 27 (2) S5 F2 FSS: LONE ROCK
Remarks: Rolling.

BED-AH-WICK FLD See PRINCETON

BELL AERO SERVICE See BARABOO

BIG FOOT AIRFLD See WALWORTH

BLACK RIVER FALLS
JACKSON CO 2 E
855 28 (4) F2 FSS: LA CROSSE
Remarks: Surrnd by P-lines.

BLOOMER MUNI 2 NE
1020 25 (1) *L F2 FSS: EAU CLAIRE
Remarks: Unattended.

BONG See SUPERIOR

BOSCOBEL 2 NE
670 27 (3) S1 F4 U-1 FSS: LONE ROCK

BOULDER JUNCTION 1 NW
1665 40 (2) L F4 U-1 FSS: WAUSAU
Remarks: Clsd winters.

BOYCEVILLE ARWYS, Inc Adj E
948 24 (1) F2 FSS: EAU CLAIRE
Remarks: Unattended

BOYD'S MASON LAKE RESORT See FIFIELD

BRIGGSVILLE
NORLINGS 1 SW
830 24 (1) F2 FSS: LONE ROCK
Remarks: Attended summers only.

BURLINGTON MUNI 2 NE
778 27 (2) L4 S3 F4 FSS: MILWAUKEE
Remarks: P-line E

BURNETT COUNTY See SIREN

BUSH FLD See LADYSMITH

CABLE-UNION 2 SE
1351 H37 (1) BL4 F4 U-1 FSS: EAU CLAIR
Remarks: N/S strip only plowed winters. Fee winter months.

CAMBRIDGE 1 SE
877 16 (1) S1 F2 FSS: LONE ROC

CAPITOL DRIVE See PEWAUKEE

CARM FIELD See PLYMOUTH

CASSVILLE 1 SE
627 30 (1) L2 F2 FSS: LONE ROC
Remarks: Use tfc pat over riv. Unattended. P-line W.

CENTRAL CO See IOLA

CHETEK 1 SE
1050 27 (2) L4 F2 FSS: EAU CLAIR
Remarks: P-line SE and W.

CLINTONVILLE MUNI 1 E
828 H47 (2) BL4 S1 F2 U-1 FSS: GREEN BA
Remarks: P-line SW. Threshold rnwy 14 displaced 402' SE.

COLONA MUNI 3 NW
1100 30 (3) F2 FSS: WALSH
Remarks: Attended Sat and Sun.

CORNELL MUNI 2 E
1143 22 (1) FSS: EAU CLAIR
Remarks: Unattended

COWGILL FLD See RIO

CRANDON MUNI 3 SW
1628 H31 (1) L4 FSS: WAUSA
Remarks: Unattended

CRIVITZ MUNI 3 SW
740 30 (3) F2 FSS: GREEN BA
Remarks: N, NW, SE, W blkd. No snow removal.

CUMBERLAND MUNI 3 SE
1230 22 (3) F2 FSS: EAU CLAIR
Remarks: Unattended

DALLAS
SEVERSON WIND SOCK ACRES No. 2 Adj N
1060 14 (2) FSS: EAU CLAIR
Remarks: P-line N. Unattended.

DELLAIRE RESORT See DELLWOOD

DELLWOOD
DELLAIRE RESORT 1 S
910 23 (1)
Remarks: Attended 24 hrs.

DEPERE
NICOLET 1 E
600 40 (2) *L4 S3 F2 FSS: GREEN BAY (LC 494-2

DODGE CO See JUNEAU

AIRPORT DIRECTORY

GEVILLE
YSIDE 1 N
1250 27 (1) FSS: LONE ROCK
Remarks: P-line and bldgs W. Unattended.

.INS RESORT OF THE NORTH See LAKE TOMAHAWK

R CO, CHERRYLAND See STURGEON BAY

IT See TOMAHAWK

MOND
RENSON 8 W
275 20 (1) F2
Remarks: Closed winters. Rolling.

.E RIVER MUNI 1 NW
644 H30 (1) BL4 S1 F4 U-1 FSS: WAUSAU
Remarks: Ant E.

TROY MUNI 1 NE
45 20 (1) L4 F2 FSS: MILWAUKEE
Remarks: Unattended

CLAIRE MUNI *IFR* 3 NE
87 H43 (2) BL4, 11 S5 F4 FSS: EAU CLAIRE on Fld
Remarks: Rell rnwy 22.

CLAIRE LAKE See BARNES

AIM-FISH CREEK 2 SW
7 24 (2) FSS: GREEN BAY
Remarks: Closed winters. Rolling.

LD
YD'S MASON LK RESORT 11 SW
410 40 (2) F2 FSS: WAUSAU
emarks: Closed winters.

DU LAC-COUNTY *IFR* 1 W
09 H40 (2) BL4 S5 F4 U-1 FSS: MILWAUKEE
FR ADV: For APP CON DEP CON See GREEN BAY/
AUSTINSTRAUBEL in Section IV-A

ST PROTECTION See TOMAHAWK

TKINSON MUNI 3 NE
99 19 (1) F2 FSS: LONE ROCK
emarks: Unattended

.AKE MUNI 1 W
00 25 (1) F2
emarks: Use at own risk.

KSVILLE
IT FLD 8 SW
00 18 (1)
emarks: P-line N end.

IDSHIP
AMS CO LEGION FLD 1 SE
77 42 (1) F2
emarks: P-line N. Fly over town prior to landing.

GABRIEL See HAUGEN

GENERAL MITCHELL FLD See MILWAUKEE, GENERAL MITCHELL FLD in Section IV-A

GLIDDEN MUNI 1 SE
1540 22 (1) FSS: WAUSAU
Remarks: P-lines SE.

GONSTEAD See MT HOREB

GRANTSBURG MUNI 1 NE
927 42 (2) FSS: MINNEAPOLIS
Remarks: Unattended

GREEN BAY AUSTIN-STRAUBEL See Section IV-A

HALES CORNERS
HALES CORNERS 6 SE
800 21 (1) *L4 S4 F3 FSS: MILWAUKEE (LC HU 1-4414)
Remarks: P-line W.

RAINBOW 5 SE
680 21 (4) L2 S5 F2 U-1 FSS: MILWAUKEE (LC HU 1-4414)
Remarks: P-line S.

HARTFORD MUNI 2 N
1065 H30 (1) L1 S5 F4 FSS: MILWAUKEE

HAUGEN
GABRIEL 3 NW
1296 25 (1) F2

HAYWARD MUNI 2 NE
1200 H36 (1) L4 S1 F4 FSS: EAU CLAIRE
Remarks: Trees NW. Attended on call.

HORLICK-RACINE See RACINE

HORNER FARMS See UNION GROVE

HUNT FLD See FRANKSVILLE

IOLA
CENTRAL COUNTY 4 E
900 22 (4) S3 F2 FSS: GREEN BAY
Remarks: P-line E. Unattended.

IRON RIVER
UNION 2 NW
1143 22 (1)

JACKSON CO See BLACK RIVER FALLS

JANESVILLE
ROCK COUNTY *IFR* 4 SW
808 H54 (3) BL4, 11 S5 F4, JP1 U-1 FSS: ROCKFORD (LC PL 2-8402)
VFR ADV: For APP CON DEP CON See ROCKFORD/ GREATER ROCKFORD, ILLINOIS in Section IV-A.
Remarks: Rell rnwy 4.

AIRPORT DIRECTORY

JOHN F KENNEDY MEML See ASHLAND

JUNEAU
DODGE CO 1 N
935 H32 (2) L4 F4 FSS: MILWAUKEE
Remarks: Down grade rnwy 26 after intersection.

KENOSHA MUNI 3 W
730 H36 (2) BL4 S5 F4 U-1 FSS: MILWAUKEE (DL)

KINGS LAND O'LAKES MUNI See LAND O'LAKES

LA CROSSE MUNI *IFR* 4 NW
653 H53 (3) BL4 S5 F4 U-1 FSS: LA CROSSE on Fld

LADYSMITH
BUSH FLD 2 W
1200 30 (3) S3 F4 FSS: EAU CLAIRE
Remarks: P-line SE.

RUSK COUNTY 5 NE
1230 30 (1) L4 S5 F4 FSS: EAU CLAIRE
Remarks: Rnwy lgts prior req after 2400. Clsd winters.

LAKE DELTON
McDOYLES DELLS 1 SE
910 H23 (1) S3 F2 FSS: LONE ROCK
Remarks: P-lines NE & SE; open May-Nov.

LAKE GENEVA 1 SE
894 H40 (1)

LAKELAND See ARBOR VITAE

LAKE TOMA HAWK
DONLINS RESORT OF THE NORTH 1 NW
1598 26 (1) L4 S1 F3 FSS: WAUSAU
Remarks: Closed Nov thru APR.

LAND O'LAKES
KINGS LAND O'LAKES MUNI 1 SE
1706 H36 (1) BL4 F4 U-1 FSS: WAUSAU

LA POINTE
MADELINE ISLAND 1 NE
646 28 (1) FSS: HIBBING

LEWISLYNN FARM See WATERFORD

LODI-LAKELAND Adj NE
870 26 (1) F2 FSS: LONE ROCK

LONE ROCK
TRI-COUNTY 2 NE
717 38 (3) L4 S5 F2, 4 FSS: LONE ROCK on Fld

MADELINE ISLAND See LA POINTE

MADISON
MOREY 2 NW
928 33 (4) *L4 S5 F4 U-1 FSS: LONE ROCK
Remarks: P-line S.

TRUAX FLD See Section IV-A

MAEL FLD (PORTAGE MUNI) See PORTAGE

MAMMOTH SPRINGS See OAKFIELD

MANITOWISH WATERS 1 SE
1610 35 (2) *L S1 F2, 4 FSS: WAUSA
Remarks: Attended May thru no.

MANITOWOC MUNI 2 N
647 H38 (2) BL4 S5 F4 U-1 FSS: GREEN BA
Remarks: P-line W.

MAPLE GROVE See WEST SALEM

MARSHFIELD MUNI 2 SW
1261 H36 (2) BL4 S5 F4 U-1 FSS: WAUSA
Remarks: Rnwy 5-23 ruf. Use rnwy only.

MAUSTON
MAUSTON 2 SE
880 19 (1) F3 FSS: LONE ROC
Remarks: P-line E.

WOODSIDE RCH 4 E
876 25 (1) FSS: LONE ROC
Remarks: P-line N. Clsd winters.

McBOYLES DELLS See LAKE DELTON

McMANUS-HOOCH-NA-SHEE-KAW See OREGON

MEIERS See PRESCOTT

MENOMONEE FALLS
AERO PARK 5 SW
850 27 (3) S3 F2 FSS: MILWAUKE
Remarks: Rgt tfc SW. P-line S, SW.

MENOMONIE
SKYPORT 3 NW
860 21 (1) S2 F2 U-1 FSS: EAU CLAIR
Remarks: Use rnwy only. Irregularly attended.

MERRILL MUNI 1 NW
1280 H30 (1) L4 S5 F4 U-1 FSS: WAUSA
Remarks: Rnwy 5-23 ruf. Use rnwy only.

MILWAUKEE
GENERAL MITCHELL FLD See Section IV-A

TIMMERMAN See Section IV-A

MINERAL POINT 3 NW
1160 30 (1) S5 F2 FSS: LONE ROC

MONROE MUNI 2 NE
1000 27 (2) F4 FSS: ROCKFOR

MONTELLO
SKY LODGE 1 NW
800 21 (1) FSS: LONE ROC
Remarks: Open May-Oct

MOREY See MADISON

AIRPORT DIRECTORY

IOREB
HSTEAD 7S
1227 H27 (1) F4 FSS: LONE ROCK

KEGO
LEARY 2 S
310 13 (1) S3 F2
Remarks: Unattended. P-line S.

NAH
LLEY AIRWAYS 3 SW
760 21 (2) *L F2 FSS: GREEN BAY
Remarks: P-line E. Rolling. Use strips.

HOLSTEIN MUNI 1 SW
993 H30 (1) BL4 S5 F4 FSS: GREEN BAY

LONDON AVIATION INC 4 NE
1760 26 (2) F2 FSS: GREEN BAY
Remarks: Hi-way S. Unattended.

ARA
N HULLA FARM Adj W
1140 15 (2) S1 F2
Remarks: Unattended

LET See **DE PERE**

INGS See **BRIGGSVILLE**

FIELD
MMOTH SPRINGS 1 W
2000 18 (1) F3

ITO MUNI 2 SW
1202 H30 (1) L4 S5 F4 U-1 FSS: GREEN BAY

WA
INBOW 1 NE
1265 35 (1) FSS: EAU CLAIRE
Remarks: Open May-Oct

ARY See **MUSKEGO**

N See **OXFORD**

ON
MINUS-HOOCH-NA-SHEE-KAW 3 E
1726 18 (1) F2 FSS: LONE ROCK (LC LU 3-2661)
Remarks: Irregular attendance.

OLA MUNI Adj SE
1894 H30 (1) BL4 S1 F3 U-1 FSS: MINNEAPOLIS
Remarks: NE end NE/SW rnwy ruf. Unattended.

OSH WINNEBAGO CO See Section IV-A

AGAMIE CO See **APPLETON**

-WITHEE See **WITHEE**

ORD
SON 1 W
1196 22 (1)

PALMYRA Adj NW
854 21 (1) F2 FSS: MILWAUKEE

PARK FALLS
ROBBEL 1 NW
1515 18 (1) L3 S3 F2
Remarks: P-line W.

PEWAUKEE
CAPITOL DRIVE 3 E
850 24 (3) S5 F2 FSS: MILWAUKEE (LC HU 1-4414)
Remarks: P-line S. Rgt tfc rnwys 9-18.

PHELPS
TOWNSHIP MUNI 6 E
1700 29 (1) FSS: WAUSAU
Remarks: Open Apr-Nov.

PHILLIPS
PRICE COUNTY 1 N
1475 33 (2) L4 S1 F2 U-1 FSS: WAUSAU

PLATTEVILLE 3 SW
980 20 (1) F2 FSS: LONE ROCK

PLYMOUTH
CARM 2 NW
925 22 (2) FSS: MILWAUKEE
Remarks: Unattended.

PORTAGE
MAEL FLD (PORTAGE MUNI) 1 NW
920 H30 (1) L4 S3 F4 FSS: LONE ROCK

PRAIRIE DU CHIEN MUNI 2 SE
660 30 (1) F2 FSS: LA CROSSE
Remarks: Unattended.

PRAIRIE DU SAC
SAUK PRAIRIE 1 W
825 H23 (1) F2
Remarks: Unattended.

PRESCOTT
MEIERS 4 NE
970 16 (1) FSS: MINNEAPOLIS

PRICE COUNTY See **PHILLIPS**

PRINCETON
BED-AH-WICK-FLD Adj E
787 18 (1) FSS: LONE ROCK

RACINE
HORLICK-RACINE *IFR* 2 N
665 H40 (3) BL4 S5 F4, JP1 U-1 FSS: MILWAUKEE
VFR ADV: For APP CON, DEP CON See MILWAUKEE/ GENERAL MITCHELL FLD in Section IV-A
Remarks: Use rnwys only, sod unsafe.

RAINBOW See **HALES CORNERS**

RAINBOW See **OJIBWA**

AIRPORT DIRECTORY

REEDSBURG 1 E
880 H24 (1) L2, 4 S1 F4 FSS: LONE ROCK
Remarks: P-line SE, N.

RHINELANDER-ONEIDA CO *IFR* 2 W
1599 H39 (2) BL4 S5 F4 FSS: WAUSAU

RICE LAKE
ARROWHEAD 2 SE
1190 29 (2) L F3 U-1 FSS: EAU CLAIRE
Remarks: Rolling, 2100′ lgtd. Lgts after 11 PM by phone req.

RICE LAKE MUNI 3 NE
1150 35 (3) F4 FSS: EAU CLAIRE
Remarks: Unattended.

RICHLAND See SEXTONVILLE

RIO
COWGILL FLD 7 W
880 26 (2) S1 F2
Remarks: P-line E.

RIVER FALLS 1 SE
920 22 (1) F4 FSS: MINNEAPOLIS
Remarks: Unattended.

ROBBEL See PARK FALLS

ROCK COUNTY See JANESVILLE

RUSK COUNTY See LADYSMITH

SAUK CITY
SAUK PRAIRIE 2 NW
800 20 (1) F2 FSS: LONE ROCK

SAUK PRAIRIE See PRAIRIE DU SAC

SAUK PRAIRIE See SAUK CITY

SCHULZS SPOONER See SPOONER

SEVERSON WINDSOCK ACRES No 2 See DALLAS

SEXTONVILLE
RICHLAND Adj NW
722 22 (2) L4 S3 F2 FSS: LONE ROCK

SHAWANO MUNI 2 NE
813 H26 (1) BL4 S5 F4 U-1 FSS: GREEN BAY
Remarks: TV ant. 3100′ strip avbl.

SHEBOYGAN-COUNTY MEML 6 W
746 H36 (2) BL4 S5 F4 U-1 FSS: GREEN BAY

SHELL LAKE MUNI Adj SE
1232 H25 (1) BL4 S1 F4 FSS: EAU CLAIRE
Remarks: P-line NE. Plowed winters.

SHULLSBURG 1 S
1080 17 (2) S1 F2 FSS: LONE ROCK

SIREN
BURNETT CO 2 NE
988 H39 (2) BL4 S5 F4 FSS: MINNEAPO..

SKY HARBOR See BAILEYS HARBOR

SKY LODGE See MONTELLO

SKYPORT See MENOMONIE

SKYWAY See BEAVER DAM

SOLON SPRINGS MUNI 3 S
1100 H26 (1) F4 U-1 FSS: HIBBIN

SORENSON See DRUMMOND

SPARTA
ANGELD MUNI 2 NE
800 26 (4) FSS: LA CROSS

SPOONER
SCHULZS SPOONER 4 W
1072 30 (3) *L F4 FSS: EAU CLAIR
Remarks: Use strips. P-line SE.

SPOONER MUNI 4 N
1103 22 (2) FSS: EAU CLAIR

STEVENS POINT MUNI *IFR* 3 NE
1107 H52 (2) BL4, 11 S5 F4 U-1 FSS: WAUSA
Remarks: Use rnwys. Rail rnwy 3.

STURGEON BAY
DOOR CO, CHERRYLAND 2 NW
718 H36 (1) L4 S3 F4 U-1 FSS: GREEN BA

STURTEVANT
AIR CITY Adj SE
700 26 (2) F2 U-1 FSS: MILWAUKEE
Remarks: P-lines NE, SW.

SYLVANIA 3 W
790 24 (1) L4 S3 F3 FSS: MILWAUKEE
Remarks: P-line E.

UNIV OF LAWSONOMY 2 SW
750 27 (1) FSS: MILWAUKEE
Remarks: P-line N.

SUPERIOR
BONG 2 S
674 H33 (1) BL4 S5 F4
Remarks: P-line NE.

SYLVANIA See STURTEVANT

THREE CASTLES ARPK MUNI See WONEWOC

THREE LAKES MUNI 3 SE
1637 37 (1) BL4 S5 F4 U-1 FSS: WAUSAU

TIMMERMAN See MILWAUKEE, TIMMERMAN in Section IV-A

AIRPORT DIRECTORY

AH 1 E
970 26 (2) S3 F2 FSS: LACROSSE
Remarks: P-line S. Unattended.

AHAWK
OTT *IFR* 7 NE
1500 40 (2) U-1 FSS: WAUSAU
Remarks: P-lines NW.

REST PROTECTION Adj NW
1450 H32 (1) FSS: WAUSAU
Remarks: Rgt tfc W. Poles E. Tower SE.

NSHIP MUNI See PHELPS

COUNTY See LONE ROCK

X FLD See MADISON, TRUAX FIELD in Section IV-A

TLE 5 E
911 23 (1)
Remarks: Trees E.

N See IRON RIVER

N GROVE
RNER FARMS 17 SW
770 22 (2) F2
Remarks: P-line N, S.

. Of LAWSONOMY See STURTEVANT

EY AIRWAYS See NEENAH

HULLA FARM See NIAGARA

ORTH
FOOT AIRFLD 2 SW
749 32 (2) S3 F2 FSS: ROCKFORD
Remarks: P-line N.

INGTON-ISLAND On Island
56 25 (2) L4 F2 FSS: GREEN BAY
Remarks: P-line NE. Unattended.

RFORD
WISLYNN FARM 4 SE
910 24 (1) FSS: MILWAUKEE
Remarks: Poles N.

RTOWN MUNI 1 S
920 H28 (1) BL4 S5 F4 FSS: LONE ROCK

ESHA-CO *IFR* 2 N
909 H36 (2) BL4 S5 F4 U-1 FSS: MILWAUKEE (DL)
IFR ADV: For APP CON DEP CON See MILWAUKEE/ GENERAL MITCHELL FLD in Section IV-A.
Remarks: P-line S N. Rgt tfc rnwy 18, 36. Attended days. Displaced threshold rnwy 28, 600' W.

ACA MUNI 3 SE
960 H28 (1) L4 F2 FSS: GREEN BAY
Remarks: Unattended.

WAUPUN-FLYING SERVICE 2 SW
940 27 (3) S3 F2 FSS: LONE ROCK
Remarks: P-line N. Silos W.

WAUSAU MUNI *IFR* 2 S
1205 H44 (2) BL4 S3 F4 FSS: WAUSAU on Fld

WAUTOMA MUNI 2 SW
858 28 (3) L4 F4 FSS: WAUSAU

WAYSIDE See DODGEVILLE

WEST BEND MUNI 2 E
880 H36 (1) BL4 S5 F4 U-1 FSS: MILWAUKEE (DL)
Remarks: Rolling. Use strips.

WEST SALEM
MAPLE GROVE 2 SW
744 26 (2)
Remarks: P-line E.

WINNEBAGO CO See OSHKOSH, WINNEBAGO CO in Section IV-A

WISCONSIN RAPIDS
ALEXANDER FLD SOUTH WOOD COUNTY 1 S
1019 H48 (2) BL4 S5 F4 U-1 FSS: WAUSAU

WITHEE
OWEN-WITHEE 1 S
1286 26 (1) F2 FSS: EAU CLAIRE
Remarks: P-line E. Unattended.

WONEWOC
THREE CASTLES ARPK MUNI 1 NW
960 23 (1) F2

WOODSIDE RANCH See MAUSTON

WYOMING

AFTON MUNI Adj S
6239 41 (1) S5 F4 FSS: ROCK SPRINGS
Remarks: Rgt tfc S.

ALPINE
FLYING SADDLE 1 E
5658 46 (1) FSS: IDAHO FALLS

BAGGS AIRSTRIP Adj S
6390 31 (2) FSS: RAWLINS
Remarks: P-line E.

BARBER STRIP See DOUGLAS

BASIN 1 NE
3875 35 (1) FSS: WORLAND

BIG PINEY MUNI 2 N
6970 H44 (1) L4 S3 F4 U-1 FSS: ROCK SPRINGS
Remarks: Crowned rnwy, use cntr of rnwy.

BILL
TILLIARD RANCH 10 W
4820 20 (all way)

AIRPORT DIRECTORY

BUFFALO MUNI 2 NW
4900 H45 (1) BL4 S5 F4 U-1 FSS: SHERIDAN
Remarks: Unicom prior request hrs of darkness.

CASPER AIR TERMINAL See Section IV-A

CHEYENNE See Section IV-A

CODY MUNI 2 SE
5096 H54 (1) BL4 S5 F4 U-1 FSS: WORLAND
Remarks: Attended after dark by phone request.

COKEVILLE 2 SW
6250 42 (2) FSS: ROCK SPRINGS
Remarks: Fence E.

CONVERSE CO See DOUGLAS

COW CREEK See LANCE CREEK

COWLEY-LOVELL-BYRON
NORTH BIG HORN CO 2 NE
4050 H46 (1) BL4 S3 F2 FSS: WORLAND
Remarks: Unattended.

DILTS RANCH See VERSE

DOUGLAS
BARBER STRIP 14 W
5220 33 (1)
Remarks: P-line NE.

CONVERSE CO *IFR* 1 SE
4876 H50 (1) BL4 S5 F4 U-1 FSS: CASPER (DL)
Remarks: P-line ENE. Turf soft when wet.

DUBOIS MUNI 3 NW
7200 48 (1) FSS: WORLAND
Remarks: Parallels mtns.

DULL CENTER
SADLER 3 NE
4500 15 (1)

SHERWIN FLD No 1 7 NE
4176 33 (2) S1 F4 U-1

ENCAMPMENT
SILVER SPUR FLD 3 N
7539 42 (2) FSS: RAWLINS

EVANSTON MUNI 5 NW
6600 45 (1) S3 F4 U-1 FSS: SALT LAKE CITY (DL)

FLYING L SKYTEL See WAPITI

FLYING SADDLE See ALPINE

FT BRIDGER *IFR* 4 N
7016 51 (2) BL2 FSS: ROCK SPRINGS (DL)

GENERAL BREES FLD See LARAMIE

GILLETTE-CAMPBELL CO 4 NW
4338 H41 (1) BL4 F4 U-1 FSS: SHERIDAN
Remarks: Svc & unicom on prior request, hrs of darkness.

GLENDO
THOMAS MEML 1 NE
4665 25 (3) FSS: CASPER
Remarks: Slippery when wet.

GREEN RIVER 4 S
7183 60 (1) FSS: ROCK SPRINGS

GREYBULL
SOUTH BIG HORN CO 2 NW
3932 H50 (1) BL4 S5 F4 FSS: WORLAND
Remarks: Attended after dark by phone request.

GRIVE RANCH See SAVERY

GUERNSEY 1 SE
4395 36(2) FSS: CASPER
Remarks: Water twrs W.

HERTZLER FARM See VETERAN

HOWE See LARAMIE

HUNT FLD See LANDER

JACKSON'S HOLE 7 N
6444 H63 (1) BL4 S1 F4 FSS: WORLAND
Remarks: Wea info & rnwy avbl Jun 15 - Sep 15.

JEFFREY CITY
SPLIT ROCK MILL LANDING AREA 1 SW
6325 48 (1) FSS: RAWLINS

KAYCEE
KUIPER 6 NW
5300 26 (4) F2

KEMMERER MUNI 2 NW
7282 71 (1) B FSS: ROCK SPRINGS
Remarks: Unattended.

KUIPER See KAYCEE

LANCE CREEK
COW CREEK 12 N
4400 15 (2) FSS: CASPER
Remarks: 80/87 fuel, emgcy.

LANDER
HUNT FLD 1 S
5586 H49 (1) BL4 S1 F4 U-1 FSS: WORLAND
Remarks: Tricky up/down drafts both ends rnwy. Rnwy lgts on request thru unicom.

LARAMIE
GENERAL BREES FLD *IFR* 3 W
7273 H63 (2) BL4 S5 F4 FSS: LARAMIE
Remarks: P-line NE. Fence ends of rnwy 3 & 12.

AIRPORT DIRECTORY

OVE 3 S
Remarks: Irregularly attended.

TLE BUFFALO RANCH See SAVAGETON

T CABIN Adj SE
5460 40 (1) FSS: WORLAND

K MUNI 3 E
4960 H47 (1) BL4 S5 F4 U-1 FSS: CHADRON

NCINE BOW 1 SE
6646 36 (3) BL2 FSS: LARAMIE
Remarks: P-line NE & SW. Unattended.

DELL FLD See NEWCASTLE

CASTLE
NDELL FLD 5 NW
4165 H47 (1) BL4 S5 F4 U-1 FSS: RAPID CITY
Remarks: P-line N, E.

TH BIG HORN CO See COWLEY-LOVELL-BYRON

ER FLD See WHEATLAND

EDALE
ENZ FLD 5 SE
7050 H44 (2) BL4 S1 F4 U-1 FSS: ROCK SPRINGS
Remarks: Unattended. 5400' strip avbl.

ELL MUNI 7 NW
5094 H62 (1) BL4 F4 U-1 FSS: WORLAND

WNS MUNI *IFR* 2 NE
0784 H55 (1) BL4 S5 F4 FSS: RAWLINS on Fld
Remarks: Rgt tfc NE. Ngt tk-offs SW only. Antelope on fld all hrs. Rnwy lgts on req thru FSS.

RTON MUNI *IFR* 4 NW
5493 H62 (1) BL4 S5 F4 U-1 FSS: WORLAND (DL)

SPRINGS MUNI *IFR* 7 E
6752 H67 (3) BL4, 7 S5 F4 FSS: ROCK SPRINGS on Fld
Remarks: Woods.

ER See DULL CENTER

TOGA
VELY FLD Adj SW
4960 H58 (1) BL4 F4 FSS: RAWLINS
Remarks: P-line E. Hill S, SW. Lgts dusk to dawn May thru Dec. Dusk-2400 Jan-Apr.

GETON
TLE BUFFALO RANCH 8 SE
5100 40 (2) F2
Remarks: Unattended.

RY
IVE RANCH 3 E
5853 45 (1)
Remarks: Strip slopes from NE to SW. Land uphill.

SCHLOREDT See SUNDANCE

SHERIDAN CO *IFR* 2 SW
4021 H60 (2) BL4 S5 F4 FSS: SHERIDAN on Fld
Remarks: Rnwy lgts on request thru FSS.

SHERWIN FLD No 1 See DULL CENTER

SHIVELY FLD See SARATOGA

SHOSHONI MUNI 1 NW
4820 48 (3) FSS: WORLAND
Remarks: P-line W.

SILVER SPUR FLD See ENCAMPMENT

SOUTH BIG HORN CO See GREYBULL

SPLIT ROCK MILL LANDING AREA See JEFFREY CITY

SUNDANCE
SCHLOREDT 2 SW
4855 23 (2) F2 FSS: RAPID CITY
Remarks: Unattended.

THERMOPOLIS MUNI (HOT SPRINGS CO) 1 N
4560 H48 (1) S1 F4 U-1 FSS: WORLAND
Remarks: Attended on request by phone. Ctc unicom 122.8 mc before entering tfc patn. Land uphill, tk-off downhill.

THOMAS MEML See GLENDO

TILLIARD RANCH See BILL

TORRINGTON MUNI 1 E
4204 H52 (2) BL4 S1 F4 FSS: SCOTTSBULFF
Remarks: Tfc departing NW are requested to clear W side of town before making tfc patn.

UPTON MUNI 1 SW
4265 29 (1) BL4 FSS: RAPID CITY
Remarks: P-lines N & S.

VERSE
DILTS RANCH 10 NW
4800 26 (1) F4 U-1
Remarks: Unattended.

VETERAN
HERTZLER FARM 2 S
30 (1) F2

WAPITI
FLYING L SKYTEL 3 W
5670 33 (1)
Remarks: P-line E.

WENZ FLD See PINEDALE

WESTON
WHITE RANCH 13 N
3500 36 (3) FSS: SHERIDAN

AIRPORT DIRECTORY

WHEATLAND
PHIFER FLD 1 E
4775 H41 (1) BL2 FSS: CASPER

WHITE RANCH See WESTON

WORLAND MUNI 3 S
4202 H62 (1) BL4 S5 F4 FSS: WORLAND
Remarks: Calm wind rnwy 16.

SEAPLANE BASE DIRECTORY

CALIFORNIA

EWOOD
OMMAND LAKE TAHOE 6 S
6229 250

.SEYVILLE
ERNDALE RESORT 3 NE
1326 AW F2 FSS: UKIAH

(EPORT
KYLARK Adj E
1326 AW, UNL L1 S3 F2 U-1 FSS: UKIAH

'OLL
1ASTA NAVIGATION CORP 2 NW
1065 100 F2 FSS: RED BLUFF

FRANCISCO
HATFIELD AIR SERVICE 1 E
00 UNL S3 FSS: OAKLAND
Remarks: Moving ocean going shipping.

SALITO
OMMAND 2 NW
00 100 S5 F2 FSS: OAKLAND
Remarks: Unattended.

'ER LAKE
ICE FORK 14 N
1807 100 S3 U-1 FSS: UKIAH

CONNECTICUT

'TON 3 SE
00 40 (1) S5 F4 FSS: PROVIDENCE

FLORIDA

'ALTON BEACH
RANK BASS 1 N
00 45 S3 F2 FSS: CRESTVIEW
Remarks: Attended daily except Mon.

'
SCAYNE 6 NE
00 120 S5 F4 FSS: MIAMI (LC 634-7687)

'ALK 1 E
00 UNL S3 F3 FSS: MIAMI (LC 634-7687)
Remarks: 500' rdo twr 3/4 mi W of base.

ERIA BEACH
ARTUNG LODGE Adj S
00 UNL F3 FSS: VERO BEACH
Remarks: Attended daylight hrs.

'ETERSBURG
LBERT WHITTED Adj E
00 UNL S3 F5 U-1 FSS: TAMPA (DL)
Remarks: Beaching area only. Nat oper not authorized.

IDAHO

COVER D'ALENE
BROOKS 1 SW
2125 100 F2 FSS: SPOKANE
Remarks: Pwr lines extreme E end of lake. Attended May-Sept.

ILLINOIS

MOLINE
QUAD CITY 3 S
560 UNL S3 F2 FSS: BURLINGTON (DL)
Remarks: P-lines 300' E of hangar; bridge 1/4 W of hangar.

INDIANA

MONTICELLO
TALL TIMBERS MARINA 5 NW
648 59 *BL3 FSS: LAFAYETTE
Remarks: P-line S.

IOWA

OKOBOJI
LAKE OKOBOJI LANDING AREA 1 N
1430 200 F2 U-1 FSS: HURON
Remarks: Fuel in emgcy; limited. Irregular atnd.

LOUISIANA

ALEXANDRIA
BUHLOW LAKE Adj
80 23 S3 F4 FSS: ALEXANDRIA (LC 445-3663)
Remarks: Attended dalgt hrs. P-line N.

AMELIA
BAYOU BOEUF Adj W
2 100 L2 F2 U-1 FSS: LAFAYETTE
Remarks: Fuel in emgcy. Irregular attended.

GRAND ISLE 3 NE
00 UNL FSS: NEW ORLEANS
Remarks: Limited.

HARVEY Adj E
00 105 S5 F4 FSS: NEW ORLEANS (LC 943-5535)
Remarks: P-line both apchs.

HOUMA
DUMAS 1 N
5 UNL S5 F2 U-1 FSS: NEW ORLEANS
Remarks: Wires S end at bridge; wires over W end on twrs. Limited.

GEIST 1 N
5 200 S5 F2 FSS: NEW ORLEANS
Remarks: Attended dalgt hrs. P-lines cranes line canal banks.

HAMMOND'S AIR SERVICE Adj N
5 60 S5 F4 FSS: NEW ORLEANS
Remarks: 285' twr 1/4 mi N on W bank of canal.

MORGAN CITY SLATON 3 E
00 100 S5 F4 U-1 FSS: LAFAYETTE
Remarks: Commercial boat tfc. P-line SE.

SEAPLANE BASE DIRECTORY

NEW IBERIA
LA SALLE Adj SE
5 100 S5 F4 U-1 FSS: LAFAYETTE
Remarks: Bridge NW.

NEW ORLEANS
LAKEFRONT 5 NE
00 UNL S5 F5, JP5 FSS: NEW ORLEANS (LC 943-5535)

WESTWEGO 3 SE
00 62 S5 F4 FSS: NEW ORLEANS (LC 943-5535)
Remarks: Attended 24 hrs.

MAINE

ALEXANDER POCOMOONSHINE 3 NW
132 UNL F2
Remarks: Limited.

BAR HARBOR 7 NW
00 UNL B S5 F4 U-1
Remarks: Attended days May-Nov.

BREWER
DOWN EAST 2 NE
15 80 S3 F4 U-1 FSS: OLD TOWN (LC 827-4010)
Remarks: P-line NE. Attended May-Nov.

BRUNSWICK
OLD SEAPLANE BASE 2 NW
75 39 FSS: AUGUSTA
Remarks: Limited

CHESUNCOOK
NUGENT CHAMBERLAIN LAKE 12 NE
945 UNL F2
Remarks: Fuel in emergency. Irregular attendance.

CHINA LAKE Adj S
195 UNL FSS: AUGUSTA

CLAYTON LAKE
ILCO LANDING AREA Adj S
1031 25 FSS: HOULTON

DEXTER
HIG'S LANDING 1 NE
433 52 L3 S1 F2 FSS: OLD TOWN
Remarks: Limited. Unattended.

DOVER-FOXCROFT 1 SW
342 30 FSS: OLD TOWN

EASTPORT 1 NW
00 UNL S1 FSS: OLD TOWN
Remarks: Limited.

ELLSWORTH
LEONARD LAKE 1 N
67 53 F2 FSS: OLD TOWN
Remarks: Limited.

FORT KENT 1 SW
515 50 F2 FSS: HOULTON
Remarks: Unattended.

GLENBURN
LAKESIDE 2 NE
115 104 F4
Remarks: Attended summers during daylt hrs.

GREENVILLE
FOLSOM'S AIR SERVICE Adj N
1028 60 S5 F2 FSS: MILLINOCKE

HOLT FLYING SERVICE, INC Adj N
1028 60 S5 F2 FSS: MILLINOCKE
RICHFIELD SERVICE Adj N
1028 60 S3 F2 FSS: MILLINOCKE
Remarks: Bldgs & TV ant on S end of area.

GUILFORD 1 S
446 53 S1 FSS: OLD TOWN
Remarks: Limited; sod E of bridge.

JACKMAN
BIGWOOD LAKE Adj S
1157 26 F4 FSS: MILLINOCKE

MEDWAY 1 SE
230 50
Remarks: Limited.

MILLINOCKET
BUCK HORN CAMPS 6 NW
400 UNL S3 F2 FSS: MILLINOCKET (LC 723-834
Remarks: Unattended.

MILLINOCKET 7 NW
488 50 S3 F2 FSS: MILLINOCKET (LC 723-834
Remarks: Attended daylight hrs May-Dec.

NAPLES
IRVING'S Adj NE
267 100 F2 FSS: AUGUSTA
Remarks: Limited.

NORTH LIVERMORE
LONG POND 1 S
500 40 F2 FSS: AUGUSTA
Remarks: Limited.

OLD TOWN 2 NW
103 37 B S3 F2 FSS: OLD TOWN (on Fl

PALERMO
BRANCH POND Adj NE
345 40 FSS: AUGUSTA
Remarks: Limited.

PATTEN
AUGUSTINE'S 8 NW
780 65 S3 F2 U-1 FSS: HOULTON
Remarks: P-lines 100' above water 30' S of bridge invisible at times, strangers should use caution; no marker on wires

SEAPLANE BASE DIRECTORY

HIN POND 8 NW
780 65 F2 U-1 FSS: HOULTON
Remarks: P-lines & phone lines 400' N of base over road bridge.

ITAGE LAKE Adj W
609 50 S3 F2 FSS: HOULTON

IFORD 1 SE
600 40 F3 FSS: AUGUSTA
Remarks: Fuel on request-call 4-3151. Boom piers on NE island north.

ANTS HARBOR
JGO'S 1 SE
00 104 F2 FSS: AUGUSTA

NER
ITCHELL 5 SE
255 100 S5 F4 U-1 FSS: AUGUSTA

BUREN Adj E
435 40 F2 FSS: HOULTON

THROP N
210 211 F2
Remarks: Limited.

MASSACHUSETTS

WAM-SPRINGFIELD 1 NE
40 80 S5 F2 FSS: WINDSOR LOCKS

ERICA 3 SW
115 40 (1) S3 F2

THAM 2 NW
00 23 (1) S5 F4 U-1 FSS: NANTUCKET

ERHILL
VERHILL-RIVERSIDE 2 E
00 55 (1) S5 F2 U-1 FSS: BOSTON

VERHILL-TIDESIDE 2 E
00 55 (1) S3 F2 U-1 FSS: BOSTON

HUEN
RRIMACK VALLEY 2 SW
50 UNL L3 S5 F4
Remarks: Bridge 200' east of base. Attended April-Oct.

MICHIGAN

CITY
MES CLEMENT 3 S
580 60 S3 F4 U-1 FSS: SAGINAW
Remarks: Hi-tension line crosses ramp area; ship buoys in river channel.

NKFORT
ADROME 3 N
650 UNL U-1 FSS: TRAVERSE CITY

HOUGHTON SANDS 2 SE
602 UNL S3 F4 FSS: HOUGHTON (LC 482-0380)

KALAMAZOO
AUSTIN LAKE 7 SE
855 100 S5 F4 U-1 FSS: JACKSON (LC ST 4-9640)
Remarks: Limited.

SEBEWAING 1 W
580 UNL S1 F4 FSS: SAGINAW

WALLOON LAKE Adj SW
688 238 F2

BAUDETTE MUNI 1 NW
1062 60 S5 F4 U-1 FSS: HIBBING

BEMIDJI
MIDWAY 1 SE
1341 UNL S5 F2 FSS: HIBBING

CIRCLES PINES
RICE LAKE 1 NE
879 65 S5 F4 FSS: MINNEAPOLIS (LC PA 9-9386)

CIRCLE PINES (NEW BRIGHTON)
SURFSIDE INC RICE LAKE 1 NE
880 65 F2

CRANE LAKE
HANDBERG'S Adj E
1120 142 L3 S5 F2 FSS: HIBBING

MOHR'S Adj W
1120 79 S5 F2 FSS: HIBBING

SCOTT'S Adj N
1120 158 F2 U-1 FSS: HIBBING

DULUTH
SKY HARBOR 3 SE
602 UNL S5 F3 FSS: HIBBING

WILD RICE LAKE 7 NW
1377 75 S3 F2 FSS: HIBBING

EVELETH
SKY HARBOR 3 SE
1376 65 S5 F3 U-1 FSS: HIBBING
Remarks: Reef near island buoyed.

GRAND MARAIS
ROCKWOOD LODGE 30 NW
1853 110 S3 F2 FSS: HIBBING

SKY PORT LODGE 6 NW
1635 UNL F2 FSS: HIBBING

GRAND RAPIDS
OTIS LODGE 7 SW
1329 133 S3 F2 U-1 FSS: HIBBING

SEAPLANE BASE DIRECTORY

HOVLAND
WILDERNESS RETREAT 13 NW
1455 79 FSS: HIBBING
Remarks: Attended May-Oct. Hi bluff W can produce turbulence.

McGREGOR
PINE HAVEN 7 N
1222 52 S5 F2 FSS: HIBBING
Remarks: Attended dalgt hrs May 15 - Sept 15. P-line E.

NAMAKAY
1119 140 S3 F2
Remarks: Open May thru Nov.

RAINIER INTL 4 E
1108 80 S3 F2
Remarks: Attended days. P-lines S.

ST PAUL
LAKE JOSEPHINE 4 N
885 30 FSS: MINNEAPOLIS

WARROAD
BONNIE BRAE 44 NE
1060 52 F2 FSS: GRAND FORKS
Remarks: Limited; two rock reefs-visible.

ISLAND FLYING SERVICE Adj NE
1064 UNL F2 FSS: GRAND FORKS
Remarks: Limited.

WARROAD Adj E
1060 UNL F2 FSS: GRAND FORKS
Remarks: Rdo twr 80' high, 1/4 block N.

WHIPHOLT
HUDDLES Adj NE
1295 UNL L7 F2
Remarks: Limited, lghts on request.

MISSOURI

OSAGE BEACH
TAN-TAR-A RESORT 7 N
658 130 U-1 FSS: VICHY

NEW HAMPSHIRE

GILMANTON
CRYSTAL LAKE 4 NE
635 65 F2 FSS: CONCORD
Remarks: Limited.

LACONIA
PAUGUS BAY
504 UNL S3 F2 FSS: CONCORD

WOLFEBORO
LAKES REGION 2 W
504 UNL S5 F2 U-1 FSS: CONCORD

NEW JERSEY

CARLSTADT
SKY HARBOR 2 SE
00 70 S5 F3 FSS: TETERBORO (LC AT 8-3[illegible]
Remarks: Constr equipment at bridge site.

JERSEY CITY 1 SW
00 50 F2
Remarks: Attended May - Nov. Rgt tfc rnwys 3, 15 and 33.

LITTLE FERRY Adj NE
00 55 S5 F2 U-1 FSS: TETERBORO (LC AT 8-[illegible]

RIDGEFIELD PARK
LAMBROS Adj S
00 55 B S3 F4 FSS: TETERBORO (LC AT 8-[illegible]
Remarks: Bcn at ngt on req (by aptmt). Attended days Mon - Thurs. May 1 - Oct 31.

NEW YORK

BRANTINGHAM INN 1 E
1500 50 L4 F2

COLLEGE POINT
EDO Adj N
00 190 S5 F3 FSS: TETERBORO (LC TW 8-[illegible]
Remarks: Limited. Use in emgcy only after ctcg LaGuardia tw clearance. Private corp base for acft testing.

EAGLE BAY
WINDHAUSEN'S Adj SE
1707 100 S3 F2 FSS: U[illegible]
Remarks: Limited parking boat tfc. Closed winters. Attended May - Nov.

ENDICOTT
TRI-CITIES 3 W
50 S5 F3 FSS: BINGHAMTON (LC 797-3[illegible]

ESSEX MARINE BASE, INC Adj
95 UNL F3 FSS: MONTPELIER

ISLAND PARK
SUBURBAN Adj SE
00 80 S5 F2 U-1 FSS: TETERBORO (LC TW 8-[illegible]
Remarks: Low intensity lgts on prior request.

KEUKA Adj
715 52 S3 F2 FSS: ELMIRA

LAKEPORT Adj W
369 50 FSS: SYRACUSE
Remarks: Attended part time.

LONG LAKE Adj N
1629 UNL S3 F2 U-1 FSS: GLENS FALLS
Remarks: Bridge NW of base. (Taxiing under bridge possible.

NEW YORK
BROOKLYN Adj SE
00 30 S3 F2 U-1 FSS: TETERBORO (LC TW 8-[illegible]
Remarks: Limited.

SEAPLANE BASE DIRECTORY

VERS 13 NE
00 UNL S5 F2 FSS: TETERBORO (LC TW 8-5256)

IDTOWN SKYPORT Adj E
00 104 U-1 FSS: TETERBORO (LC TW 8-5256)

EW YORK SKYPORTS, INC Adj SE
00 100 FSS: TETERBORO (LC TW 8-5256)
Remarks: Attended days May 1 - Oct 30.

UTHWALL SERVICE STATION, INC 4 SW
00 104 B FSS: TETERBORO (LC TW 8-5256)

TH LONG BEACH
LAND PARK Adj E
00 80 S3 F2 FSS: TETERBORO (LC TW 8-5256)

KSKILL 3 SW
00 UNL S5 F4 U-1 FSS: POUGHKEEPSIE

T HENRY
ELEZ MARINE 1 NE
95 250 F2 FSS: MONTPELIER

UETTE LAKE Adj E
1762 158 FSS: UTICA
Remarks: Skiis winters.

HESTER
EN HAVEN SKYPORT Adj NE
246 211 S3 F2 FSS: ROCHESTER (LC BE 5-5625)
Remarks: Land rises to 150' above water along E & W shores.
Fly pattern to E side.

SES POINT Adj E
95 79 FSS: MONTPELIER

ENECTADY
ELLS 3 NE
200 50 S3 F2 FSS: ALBANY (LC 869-9225)
Remarks: Attended June - Oct. P-line NE, SW.

UYLERVILLE
ARNSEY'S LAND/SEAPLANE BASE 2 S
100 50 S3 F2 FSS: GLENS FALLS

ACUSE
IANDAGA LAKE 4 NW
363 237 FSS: SYRACUSE (LC GL 4-2479)

TPORT MARINE & SEAPLANE BASE Adj E
95 UNL FSS: MONTPELIER
Remarks: Attended April thru Nov.

OHIO

VELAND
JRKE LAKEFRONT 1 N
572 105 (1) S5 F4 FSS: CLEVELAND (DL)

OREGON

PORTLAND
AQUA MARINA 1 S
6 57 F4 U-1 FSS: PORTLAND

PENNSYLVANIA

BLOOMSBURG 1 SE
465 50 S5 F4 U-1 FSS: WILLIAMSPORT
Remarks: Bridge W end.

CLAIRTON
ELIZABETH 2 SW
727 80 S3 F2
Remarks: Stacks 150' high and power plant in W side of river.

ESSINGTON
PHILADELPHIA 9 SW
00 114 S5 F2 FSS: PHILADELPHIA
Remarks: Rgt tfc rnwy 8. Transients ctc Phil Intl Twr for tfc advisory.

PITTSBURGH GATEWAY 2 NW
715 74 S3 F2 FSS: PITTSBURGH (LC HO 1-8250)
Remarks: Bridge S end. Bridge and wires N end. No storage.

SOUTH CAROLINA

CHARLESTON MUNI MARINA Adj SW
00 105 F3 FSS: CHARLESTON (LC SH 7-1048)
Remarks: Land E and W Wapoo Creek. Bridge at W end.
Ashley River E end. Dockage. Dual bridge N.

TEXAS

PORT LAVACA
TANNER 3 S
00 100 S5 F4 U-1 FSS: PALACIOS
Remarks: Attended 0800-1800. Prior instructions required for transient acft by telephone or unicom for taxiing and docking.

TOMBALL
HOUSTON NORTHWEST 3 SW
150 18 S5 F4 FSS: HOUSTON

WASHINGTON

ANACORTES
SKYLINE 3 W
00 25 F2 FSS: BELLINGHAM
Remarks: Unlimited outside break water.

BELLINGHAM
FLOATHAVEN 6 E
307 UNL S5 F2 FSS: BELLINGHAM (LC 734-6400)
Remarks: Tie down FEE.

COULEE DAM 1 SE
1289 UNL S1 FSS: EPHRATA
Remarks: Watch for floating logs & debris in spring.

FRIDAY HARBOR Adj E AOE
00 UNL FSS: BELLINGHAM
Remarks: Limited

SEAPLANE BASE DIRECTORY

KENMORE AIR HARBOR INC Adj S
14 100 S5 F4 U-1 FSS: SEATTLE

MARYSVILLE
CHADWICK 2 SW
00 UNL F2 FSS: SEATTLE
Remarks: For drift.

MOSES LAKE
ERICH HERZOG AIR BOATELL 4 NW
1046 132 F2 FSS: EPHRATA

ROSARIO Adj S
00 UNL FSS: BELLINGHAM
Remarks: Floating log breakwater 300'.

SEATTLE
KURTZER FLYING SERVICE 1 N
14 50 S5 F2 FSS: SEATTLE (LC CH 3-4200)

LAKE UNION AIR SERVICE 1 N
14 50 S3 F2 FSS: SEATTLE (LC CH 3-4200)

TACOMA
AMERICAN LAKE 8 SW
235 60 S5 F4 FSS: SEATTLE (LC FU 3-4172)

WISCONSIN

BOULDER JUNCTION 1 NW
1629 80 F4 U-1 FSS: WAUSAU

FREMONT 4 SE
800 100 F2
Remarks: Unattended.

GREEN BAY
MARINAIR 1 SW
577 UNL S5 F2 FSS: GREEN BAY
Remarks: Attended days.

HAYWARD
FRONTIER 20 E
1200 105 F2 U-1 FSS: EAU CLAIRE

HOULTON
WILDERNESS SKYWAYS 1 SE
675 100 S3 F2
Remarks: P-lines across river 3/4 mi SE.

LAKE NEBAGAMON
BRIDGES MARINA Adj SW
1109 105 F4

LAKE TOMAHAWK
DONLIN'S RESORT OF THE NORTH 1 NW
1605 26 B*L4 S1 F4 FSS: WAUSAU
Remarks: Attended May thru Nov. Clear rotg bcn on req.

MADISON
MOHS 4 W
850 250 S5 F2 FSS: LONE ROCK

MINOCQUA
LAMBERT Adj N
1598 45 S3 F2

RICE LAKE 1 NE
1170 50 F4 FSS: EAU CLAIRE

ST CROIX FALLS
THE LAGOON 6 E
1115 110 F2 FSS: MINNEAPOLIS

SHAWANO 2 NE
810 UNL S5 F4 U-1 FSS: GREEN BAY

THREE LAKES
HARTWIG 2 E
1625 90 S5 F4 FSS: WAUSAU

WAUSAU MUNICIPAL 2 S
1170 70 S3 F4 FSS: WAUSAU

HELIPORT DIRECTORY

ALABAMA

LANTON
GRAGG FIELD HELIPAD 2 NE
593 B F4 FSS: MONTGOMERY

NTGOMERY
DANNELLY FIELD HELIPAD 6 SW
221 B F10 FSS: MONTGOMERY on Fld

ISCLE SHOALS
MUSCLE SHOALS HELIPORT 2 E
548 F10 FSS: MUSCLE SHOALS on Fld

ARIZONA

REFREE
CAREFREE HELIPORT 3 SE
2300 FSS: PHOENIX

ANDLER
CHANDLER MUNICIPAL HELIPORT 3 SE
1236 FSS: PHOENIX (LC 296-4295)

AGSTAFF
PULLIAM HELIPAD 4 S
7012 F4 FSS: PRESCOTT

SA
FALCON HELIPORT 5 NE
1385 F4 FSS: PHOENIX (LC 261-4295)

SA
DQ AIRWAYS HELISPOT Adj W
1210 F2 FSS: PHOENIX

GE
EN CANYON HELIPORT 1 E
4300 F4 FSS: BRYCE CANYON

ENIX
ER VALLEY HELIPORT 15 N
1475 F4 FSS: PHOENIX (DL)

ENIX
Y HARBOR MUNI HELIPORT 2 SE
1122 FSS: PHOENIX on Fld

TTSDALE
DQ #2 HELIPORT 2 W
1375 FSS: PHOENIX

SON
UCSON MEDICAL CENTER HELIPORT 3 NE
2470 FSS: TUCSON

SON
YAN FIELD HELIPORT 14 SW
2413 B F4 FSS: TUCSON (LC 294-1463)

ARIZONA—Continued

WILLCOX
COCHISE COUNTY HELIPORT 3 W
4186 F4 FSS: DOUGLAS

CALIFORNIA

BAKERSFIELD
BAKERSFIELD HELIPORT 1 S
378 F4 FSS: BAKERSFIELD (LC 399-1787)

BAKERSFIELD
MEADOWS FIELD HELIPORT 4 NW
515 FSS: BAKERSFIELD on Fld

BERKELEY
BERKELEY MUNICIPAL HELIPORT Adj W
14 100x100

BLYTHE
BLYTHE 6 W
397 FSS: BLYTHE (LC 948-6638)

BURBANK
LOCKHEED AIR TERMINAL HELIPORT 3 NW
775 B F10 FSS: LOS ANGELES (DL)

CARPINTERIA
PARSONS AIRPARK HELIPORT 2 E
210 FSS: SANTA BARBARA (LC 967-2305)

EL MONTE
LOS ANGELES-EL MONTE HELIPORT 1 N
290 B FSS: LOS ANGELES (DL)

FRESNO
FRESNO AIR TERMINAL HELIPORT 5 NE
331 B FSS: FRESNO on Fld

FULLERTON
FULLERTON MUNICIPAL HELIPORT 3 W
95 FSS: LOS ANGELES (DL)

GRASS VALLEY
SHAWS HILL HELIPORT 1 N
2900 F4 FSS: MARYSVILLE

HAWTHORNE
HAWTHORNE MUNICIPAL HELIPORT 1 E
64 FSS: LOS ANGELES (DL)

IMPERIAL
IMPERIAL COUNTY HELIPORT 1 S
58 F4 FSS: IMPERIAL on Fld

LONG BEACH
LONG BEACH MUNICIPAL HELIPORT Adj S
6 FSS: LOS ANGELES (LC HE 2-9874)

LONG BEACH
LONG BEACH MUNICIPAL HELIPORT 1 SW
6 H205x150 FSS: LOS ANGELES (LC HE 2-9874)

HELIPORT DIRECTORY

CALIFORNIA–*Continued*

LONG BEACH
PIERPOINT HELIPORT 2 SW
15 H75x40 FSS: LOS ANGELES (LC HE 2-9874)

LOS ANGELES
LOS ANGELES INTL HELIPORT 10 SW
126 FSS: LOS ANGELES on Fld

LOS ANGELES
WHITEMAN HELIPORT 15 NW
1033 FSS: LOS ANGELES (LC SP 6-2727)

LOS ANGELES
VAN NUYS HELIPORT 15 NW
799 FSS: LOS ANGELES (DL)

MERCED
MERCED MUNICIPAL HELIPORT 2 SW
155 BL4 F4 FSS: FRESNO (LC RA 2-2691)

OAKLAND
METROPOLITAN OAKLAND INTL HELIPORT 4 S
6 BL6 F10 FSS: OAKLAND on Fld

OAKLAND
EXPOSITION PARKING 'L' HELIPORT 3 S
15 H152x60 FSS: OAKLAND (LC 638-5714)
Remarks: 2-way radio and tfc clearance from Alameda twr required.

OXNARD
VENTURA COUNTY 1 W
43 B FSS: SANTA BARBARA (DL)

PALM DESERT
PALM DESERT HELIPORT 1 NW
200 B F4 FSS: THERMAL (LC EX 9-5155)

PALM SPRINGS
PALM SPRINGS HELIPORT 2 E
448 BL4 F10 FSS: THERMAL

PALO ALTO
SAN MATEO COUNTY HELIPORT Adj E
4 F4 FSS: OAKLAND

PLACERVILLE
PLACERVILLE HELIPORT 2 E
2595 F4 FSS: SACRAMENTO

PORTERVILLE
MUNICIPAL HELIPORT 3 SW
444 BL4 F4 FSS: BAKERSFIELD

REDDING
REDDING HELISTOP 6 SE
500 FSS: RED BLUFF (LC CH 1-1661)

REDDING
REDDING SKY RANCH HELIPORT 4 S
486 FSS: RED BLUFF (LC CH 1-1661)

CALIFORNIA–*Continued*

SAN BERNARDINO
SAN BERNARDINO COUNTY HELIPORT 1 S
1043 H100x100 F4 FSS: ONTARIO
Remarks: Attended days.

SAN DIEGO
LINDBERGH HELIPORT 2 SW ACE
15 F10 FSS: SAN DIEGO on Fld

SAN DIEGO
MONTGOMERY FIELD HELIPORT 6 N
417 F4 FSS: SAN DIEGO (LC 296-3181)

SAN FERNANDO
SAN FERNANDO HELIPORT 2 SE
1168 FSS: LOS ANGELES (DL)

SAN FRANCISCO
SAN FRANCISCO INTL HELIPORT 9 S
12 F10 FSS: OAKLAND (DL)

SAN JOSE
SAN JOSE MUNICIPAL HELIPORT 2 NW
56 FSS: OAKLAND (DL)

SANTA ANA
ORANGE COUNTY HELIPORT 5 S
54 F4 FSS: LOS ANGELES (DL)

SANTA MONICA
SANTA MONICA MUNICIPAL HELIPORT 1 E
175 BL4 F10 FSS: LOS ANGELES (DL)

SAUSALITO
MARIN COUNTY HELIPORT 3 NW
2 F4 FSS: OAKLAND

SHAFTER
SHAFTER-KERN COUNTY #14 HELIPORT 4 E
420 F4 FSS: BAKERSFIELD

STOCKTON
STOCKTON METROPOLITAN HELIPORT 5 SE
27 F10 FSS: STOCKTON on Fld

SUNNYVALE
SPRUANCE HELIPORT 2 NE
40

THOUSAND OAKS
RANCHO CONEIO HELIPORT 4 NW
666 FSS: LOS ANGELES

TORRANCE
TORRANCE MUNICIPAL HELIPORT 3 SW
95 F3 FSS: LOS ANGELES (DL)

UPLAND
CABLE HELIPORT 3 NW
1450 B F4 FSS: ONTARIO (DL)

VISALIA
MUNICIPAL HELIPORT 5 W
292 BL4 F4 FSS: FRESNO

HELIPORT DIRECTORY

COLORADO

)ULDER
COLORADO INSURANCE GROUP BLDG HELIPORT Adj S
5500 FSS: DENVER
Remarks: Closed

:OOMFIELD
JEFFERSON COUNTY HELIPORT 2 W
5648 F4 FSS: DENVER (DL)

:USH
BRUSH HELIPORT 2 NE
4250 220x150 F4 FSS: AKRON
Remarks: Bldg W P-line S, E.

NVER
STAPLETON HELIPORT 5 E
5331 FSS: DENVER on Fld

ENDALE
CHERRY CREEK INN HELIPORT 3 SE
5340 150x100

ENWOOD SPRINGS
GLENWOOD SPRGS HELIPORT Adj E
5900 H50x50 FSS: EAGLE

AND JUNCTION
WALKER FIELD HELIPORT 3 NE
4858 FSS: GRAND JUNCTION on Fld

:LE
GARFIELD COUNTY HELIPORT 3 SE
5529 F4 FSS: EAGLE

CONNECTICUT

DGEPORT
RIDGEPORT MUNICIPAL HELIPORT 4 SE
9 F10 FSS: WINDSOR LOCKS (LC ED5-6097)

:STER
HESTER HELIPORT 2 SW
415 F4 FSS: WINDSOR LOCKS

:TFORD
RAINARD FIELD HELIPORT 3 W
18 F4 FSS: WINDSOR LOCKS (DL)

:IDEN
ERIDEN MUNICIPAL HELIPORT 2 SW
102 F1 FSS: WINDSOR LOCKS

BRITAIN
)MASSO HELIPORT 2 W
240 F2 FSS: WINDSOR LOCKS

MFORD
'AMFORD HELIPORT
10
Remarks: Closed.

CONNECTICUT—*Continued*

WALLINGFORD
YALE MOTOR INN HELIPORT 2 NE
90 FSS: WINDSOR LOCKS (LC 776-9735)

DISTRICT OF COLUMBIA

WASHINGTON D C
WASHINGTON NATL HELIPORT 3 S
15 F10 FSS: WASHINGTON on Fld

FLORIDA

CLEARWATER
MUNICIPAL HELIPORT 3 NE
73 F4 FSS: TAMPA

KISSIMMEE
KISSIMMEE MUNICIPAL HELIPORT Adj SE
82 B F4 FSS: ORLANDO

LAKE CITY
LAKE CITY MUNICIPAL HELIPAD 3 E
202 F4 FSS: GAINSVILLE

LAKELAND
LAKELAND HELISTOP 5 SW
142 FSS: TAMPA

LAKE WALES
MUNICIPAL HELIPAD 2 SW
125 B F4 FSS: ORLANDO

MIAMI
INTERNATIONAL HELIPORT 4 NW
9 F10 FSS: MIAMI on Fld

MIAMI
MIAMI HELIPORT 2 NE
7 F4 FSS: MIAMI (LC 634-7687)

MIAMI
PAUL WOOD HELIPORT 12 NE
4 F4 FSS: MIAMI (LC 634-7687)

ORLANDO
HERNDON HELIPORT 3 SE
113 BL6 SPECIAL FSS: ORLANDO on Fld

PENSACOLA
MUNICIPAL HAGLER HELIPORT 3 NE
121 BL6 F4 FSS: PENSACOLA on Fld

TAMPA
TAMPA INTERNATIONAL HELIPORT 4 W
27 F10 FSS: TAMPA on Fld

TAMPA
PETER O KNIGHT HELIPORT 3 S
8 F4 FSS: TAMPA (LC 877-7503)

HELIPORT DIRECTORY

FLORIDA–*Continued*

WEST PALM BEACH
PALM BEACH COUNTY PARK HELIPAD 7 SW
15 F4 FSS: VERO BEACH (LC 832-5697)

GEORGIA

ATLANTA
DEKALB-PEACHTREE HELIPORT 8 NE
1001 F10 FSS: ATLANTA (LC 344-1551)

BRUNSWICK
MALCOLM McKINNON HELIPAD 5 E
20 F10 FSS: BRUNSWICK on Fld

CHALLIS
CHALLIS HELIPORT 1 NE
5085 F4 FSS: IDAHO FALLS

LEWISTON
LEWISTON NEZ PERCE CO HELIPORT 4 SE
1438 BL4 F10 FSS: WALLA WALLA

ILLINOIS

CHAMPAIGN URBANA
UNIVERSITY OF ILLINOIS HELIPORT
5 SW 753 B F10 FSS: CHAMPAIGN on Fld

CHICAGO
CHICAGO MIDWAY HELIPORT 9 SW AOE
619 F10 FSS: JOLIET (DL)

CHICAGO
CHICAGO MIDWAY HELIPORT 9 SW
619 B F10

CHICAGO
MERCHANDICE MART HELIPORT 1 N
806 FSS: JOLIET (LC BI 2-3111-2)

LOCKPORT
LEWIS-LOCKPORT HELIPORT 2 NW
672 F4 FSS: JOLIET (LC 725-3144)

MOLINE
QUAD CITY HELIPORT 3 S
590 F10 FSS: BURLINGTON on Fld

MURPHYSBORO
SOUTHERN ILLINOIS NASHVILLE ARPT HELIPORT 19 W
411 F4 FSS: NASHVILLE

PARK FOREST
HOLLYMATIC CORP HELIPORT 1 NE
704

SPRINGFIELD
CAPITAL AIRPORT HELIPORT 3 NW
593 B F4 FSS: VANDALIA on Fld

INDIANA

ELKHART
MIDWAY HELIPAD 5 SE
780 FSS: SOUTH BEND (DL)

ELKHART
ELKHART HELIPORT 3 NW
752 F4 FSS: SOUTH BEND (DL)

GOSHEN
GOSHEN MUNICIPAL HELIPORT 4 SE
823 F4 FSS: SOUTH BEND (DL)

LA PORTE
LA PORTE MUNI HELIPORT 2 SW
803 F10 FSS: SOUTH BEND

MICHIGAN CITY
MICHIGAN CITY MUNI HELIPORT 2 SW
668 F4 FSS: SOUTH BEND

MISHAWAKA
MISHAWAKA TOWER HELIPAD 3 NE
760 F4 FSS: SOUTH BEND (LC CE 3-44[illegible]

IOWA

CEDAR RAPIDS
CEDAR RAPIDS MUNI HELIPORT 6 SW
863 F10 FSS: CEDAR RAPIDS on Fld

KANSAS

LIBERAL
LIBERAL MUNICIPAL HELIPORT 2 W
2888 F4 FSS: GARDEN CITY

TOPEKA
PHILLIP BILLARD MUNI HELIPORT 1 NW
880 B F10 FSS: TOPEKA on Fld

KENTUCKY

LEXINGTON
BLUE GRASS HELIPORT 6 W
978 F10 FSS: LEXINGTON on Fld

LEXINGTON
TREE HAVEN FARM HELISTOP 6 NE
995 F4 FSS: LEXINGTON

LOUISIANA

BATON ROUGE
RYAN HELIPAD 4 N
70 FSS: BATON ROUGE on Fld

HELIPORT DIRECTORY

LOUISIANA—Continued

AYETTE
AFAYETTE HELIPORT 2 SE
42 F10 FSS: LAFAYETTE on Fld

VILLE
EVILLE HELIPORT 2 S
F10

GAN CITY
BIL HELIPORT 1 SE
5 F2 FSS: LAFAYETTE

ORLEANS
W ORLEANS LAKEFRONT HELIPORT 6 NE
8 F10 FSS: NEW ORLEANS on Fld

AN
/IAN HELIPORT 2 SW
280 F4 FSS: SHREVEPORT

MAINE

JSTA
GUSTA STATE HELIPORT 1 NW
357 F4 FSS: AUGUSTA on Fld

BERLAND
ZELTONS HELIPORT 3 SE
100 400 X 200

MARYLAND

TIMORE
LTIMORE MUNICIPAL HELIPORT 1 SE
FSS: WASHINGTON

TIMORE
IENDSHIP INTL HELIPORT 9 S
46 F10 FSS: WASHINGTON (DL)

TIMORE
:R 4 HELIPORT Adj SE
0 H70 X 70 (1) FSS: WASHINGTON
Remarks: Day mrkgs blast fence N.

ON
STON MUNICIPAL HELIPORT 2 N
6 F10 FSS: SALISBURY

N CITY
EAN CITY HELIPORT 2 SW
2 F4 FSS: SALISBURY

MASSACHUSETTS

ORD
JRENCE G HANSCOM FLD HELIPORT 1 SW
33 F10 FSS: BOSTON (DL)

ON
I EDWARD LAWRENCE LOGAN INTL HELIPORT 1 E
9 F10 FSS: BOSTON on Fld

MASSACHUSETTS—Continued

FITCHBURG
FITCHBURG MUNICIPAL HELIPORT 2 SE
350 F4 FSS: BOSTON (LC WA 7-1355)

MARSHFIELD
MARSHFIELD HELIPORT 1 W
9 F4 FSS: BOSTON

NEW BEDFORD
NEW BEDFORD MUNICIPAL HELIPORT 3 NW
79 F4 FSS: NANTUCKET (DL)

NORWOOD
NORWOOD MEMORIAL HELIPORT 2 E
50 BL4 F4 FSS: BOSTON (LS WA 7-1355)

PLYMOUTH
PLYMOUTH MUNICIPAL HELIPORT 4 SW
149 F4 FSS: BOSTON

MICHIGAN

DETROIT
DETROIT CITY HELIPORT 5 NE AOE
626 BL4 F10 FSS: DETROIT (DL)

DETROIT
DETROIT METROPOLITAN WAYNE CO 15 SW AOE
639 F10 FSS: DETROIT on Fld

JACKSON
REYNOLDS MUNICIPAL HELIPORT 2 NW
1000 BL4 F10 FSS: JACKSON on Fld

MINNESOTA

SOUTH ST PAUL
SOUTH ST PAUL MUNI HELIPORT 2 S
829 F4 FSS: MINNEAPOLIS (LC PA 9-9386)

MANKATO
MANKATO MUNI HELIPORT 1 SE
1005 F4 FSS: MINNEAPOLIS (DL)

MISSOURI

JEFFERSON CITY
JEFFERSON CITY MEML HELIPORT 1 N
546 FSS: COLUMBIA (DL)

JOPLIN
JOPLIN MUNICIPAL HELIPORT 4 NE
980 B F4 FSS: JOPLIN on Fld

KANSAS CITY
STATE LINE HELIPORT 10 S
990 F4 FSS: KANSAS CITY (LC GR 1-4572)

ST LOUIS
LAMBERT ST LOUIS MUNI HELIPORT 9 NW
571 BL6 F10 FSS: ST LOUIS on Fld

HELIPORT DIRECTORY

MISSOURI–*Continued*

ST. LOUIS
MISS VALLEY HELICOPTER INC 9 NW
540 150 X 140 F2 FSS: ST LOUIS

ST. LOUIS
18TH ST GARAGE HELIPORT
520 FSS: ST LOUIS
Remarks: Abanoned.

MONTANA

HELENA
HELENA HELIPAD 1 NE
3873 B F4 FSS: HELENA

GREAT FALLS
OHAIRE MANOR HELIPORT Adj SW
3347 FSS: GREAT FALLS

NEBRASKA

ALLIANCE
ALLIANCE MUNICIPAL HELIPORT 4 SE
3930 BL4 F4 FSS: SCOTTSBLUFF (DL)

LINCOLN
LINCOLN MUNI HELIPORT 4 NW
1198 F10 FSS: LINCOLN on Fld

EPPLEY HELIPORT 3 NE
982 F10 FSS: OMAHA on Fld

NEVADA

LAS VEGAS
McCARRAN FIELD HELIPORT 5 S
2171 F10 FSS: LAS VEGAS on Fld

LAS VEGAS
THUNDERBIRD FIELD HELIPORT 3 NW
2200 FSS: LAS VEGAS (LC 736-1573/4)

NEW HAMPSHIRE

CHARLESTOWN
TOBIN-AIKEN HELIPORT
Remarks: Inactive

PEMBROKE
HILLIARDS HELIPORT 3 SE
220 FSS: CONCORD (LC 224-7474)

NEW JERSEY

LUMBERTON
FLYING W RANCH HELIPORT 2 S
50 F4 FSS: PHILADELPHIA (LC 267-0910)

NEW JERSEY–*Continued*

MANVILLE
KUPPER HELIPORT 1 S
70 F4 FSS: TETERBORO

MORRISTOWN
KIRBY HELIPORT 4 SE
280 FSS: TETERBORO (LC AT 8-9

NEW VERNON
STILL POND HELIPORT 1 SW
350 FSS: TETERBORO (LC MA2-0121

RIDGEFIELD PARK
LAMBROS HELIPORT 1 SW
F4 FSS: TETERBORO (LC AT 8-9

NEW MEXICO

ALBUQUERQUE
CORONADO HELIPORT 6 NE
5270 F4 FSS: ALBUQUERQUE (LC CH3-7

ALBUQUERQUE
HELISPOT RANCHO DE ALBUQUERQUE HELIPORT 3 N
5020 100X100 FSS: ALBUQUERQUE
Remarks: P-Line E.

SANTE FE
SANTA FE COUNTY MUNI HELIPAD 9 SW
6344 FSS: SANTE FE or F

NEW YORK

AMITYVILLE
ZAHNS AIRPORT INC HELIPORT 3 N
54 F4 FSS: ISLIP (D

BUFFALO
GREATER BUFFALO INTL HELIPORT 5 NE AC
711 F10 FSS: BUFFALO on Fl

BUFFALO
NIAGARA FRONTIER PRT AUTH HELIPORT Adj SW
580 F2 FSS: BUFFALO

ISLIP
MAC ARTHUR HELIPORT 7 NE
98 F10 FSS: ISLIP or F

MINEOLA
ROOSEVELT FIELD HELIPORT 2 SE
80 005 FSS: SJ

NEW YORK
DOWNTOWN MANHATTAN HELI PIER 3 S
7 FSS: TETERBORO (LC TW8-5

NEW YORK
WEST 30TH ST HELIPORT Ajd W
6 F4 FSS: TETERBORO (LC TW8-5

HELIPORT DIRECTORY

NEW YORK—Continued

RT JERVIS
UGUENOT HELIPORT 3 NE
480 F2 FSS: POUGHKEEPSIE

:ACUSE
LARENCE E HANCOCK HELIPORT 5 NE
421 F10 FSS: SYRACUSE on Fld

TE PLAINS
ESTCHESTER COUNTY HELIPORT 3 NE
441 F10 FSS: ISLIP (LC SC3-4330)

TE PLAINS
HITE PLAINS HELIPORT 3 NE
441 B F10 FSS: ISLIP (LC SC3-4330)

NORTH CAROLINA

RLOTTE
)UGLAS MUNI HELIPORT 4 W
748 F10 FSS: HICKORY (LC ED 2-7262)

NESVILLE
AGGIE VALLEY HELIPORT 5 NW
2800 175x85 F4
Remarks: P-line NE.

OHIO

:INNATI
NCINNATI MUNICIPAL HELIPORT 3 SE
488 BL4 F10 FSS: CINCINNATI (LC 321-1434)

VELAND
'AHOGA COUNTY HELIPORT 10 NE
374 F10 FSS: CLEVELAND (DL)

JMBUS
:LUMBUS MUNICIPAL HELIPORT 6 E
316 F10 FSS: COLUMBUS on Fld

JMBUS
IO STATE UNIVERSITY 7 NW
'00 BL4 F4 FSS: COLUMBUS (LC 237-8478)

ESVILLE
)WAY HELIPORT 4 E
:80 200x100 F4 FSS: CLEVELAND
Remarks: Unattended.

:R ARLINGTON
LINGTON HELIPORT 1 E
:60

OKLAHOMA

ALVA
MUNICIPAL HELIPAD 2 S
1470 FSS: GAGE

FREDERICK
MUNICIPAL HELIPAD 2 SE
1233 F4 FSS: HOBART

HOBART
MUNICIPAL HELIPORT 3 SE
1562 FSS: HOBART on Fld

OREGON

HILLSBORO
HILLSBORO HELIPORT 2 NE
204 F4 FSS: PORTLAND (DL)

LA GRANDE
LA GRANDE MUNICIPAL HELIPORT 5 SE
2710 BL4 F4 FSS: BAKER

MEDFORD
MUNICIPAL HELIPORT 3 N
1330 F10 FSS: MEDFORD on Fld

PENDLETON
PENDLETON HELIPORT 3 NW
1493 F10 FSS: PENDLETON on Fld

REDMOND
ROBERTS HELIPORT 1 SE
3077 FSS: REDMOND on Fld

SPRINGFIELD
SPRINGFIELD HELIPORT 1 NE
440 F4 FSS: EUGENE (LC DI 3-7738)

TROUTDALE
TROUTDALE HELIPORT 1 NW
36 F4 FSS: PORTLAND (DL)

PENNSYLVANIA

CLEARFIELD
B & R HELIPORT Adj SW
1030 FSS: PHILPSBURG

ERIE
BEACHCOMBER HELIPORT 2 W
560 60x60 FSS: ERIE (LC TE 3-1345)
Remarks: Clsd winters.

FLEETWOOD
FLEETWOOD HELIPORT In City
450 FSS: HARRISBURG

GETTYSBURG
BATTLEFIELD HELIPORT 3 S
560 F4 FSS: HARRISBURG

HELIPORT DIRECTORY

PENNSYLVANIA—*Continued*

GETTYSBURG
DOERSONS HELIPORT 2 NW
590 F4 FSS: HARRISBURG

LANCASTER
GARDEN SPOT HELIPORT 4 W
420 F4 FSS: HARRISBURG

LANDSDALE
WILSON HELIPORT 3 SW
460 FSS: PHILADELPHIA

NEW LONDON
NEW LONDON HELIPORT Adj W
500 F4 FSS: PHILADELPHIA

PHILADELPHIA
NORTH PHILADELPHIA 11 NE
120 F10 FSS: PHILADELPHIA on Fld

PITTSBURG
ALLEGHANY COUNTY 5 S
1252 BL6 F10 FSS: PITTSBURG on Fld

PITTSBURGH
PITTSBURGH HELIPORT Center of City
713 H54x90 FSS: PITTSBURGH (LC HO 1-8250)
Remarks: FEE.

POTTSTOWN
POTTSTOWN HELIPORT 4 E
311 F4 FSS: PHILADELPHIA

SHAWVILLE
SHAWVILLE HELIPORT Adj W
1010 F2

TREXLERTOWN
TREXLERTOWN HELIPORT 1 E
400 F2 FSS: ALLENTOWN (LC 264-4539)

RHODE ISLAND

PROVIDENCE
THEODORE FRANCIS GREEN HELIPORT 6 S
56 B F10 FSS: PROVIDENCE on Fld

SOUTH CAROLINA

SPARTANBURG
SPARTANBURG MEMORIAL HELIPORT 2 SW
816 F10 FSS: GREER (LC 585-5470)

CRESCENT BEACH
MYRTLE BEACH HELIPAD Adj N
32 BL4 F4 FSS: MYRTLE BEACH (LC 448-7187)

SOUTH DAKOTA

HURON
W W HOWES HELIPAD 1 NW
1287 F4 FSS: HURON on Fld

RAPID CITY
RAPID CITY MUNICIPAL HELIPORT 8 SE
3181 BL6 F4 FSS: RAPID CITY on Fld

TENNESSEE

HUMBOLDT
MUNICIPAL HELIPORT 3 SE
421 F4 FSS: JACKSON

KNOXVILLE
DOWNTOWN-HOLIDAY INN HELIPORT 2 SE
950 003 FSS: KNOXVILLE

KNOXVILLE
McGHEE TYSON HELIPORT 8 S
989 F10 FSS: KNOXVILLE on Fld

TEXAS

ARLINGTON
GREAT SOUTHWEST HELIPORT 2 E
586 35X35 F2 FSS: FORT WORTH (LC MA 4-8[illegible]
Remarks: Water tower S.

DALLAS
SOUTHLAND CENTER HELIPORT 4 SE
550 H60X60 FSS: DALLAS (LC FL 7-28[illegible]

EAGLE LAKE
EAGLE LAKE HELIPORT 1 NE
185 FSS: HOUSTON

FORT WORTH
CONTINENTAL COPTERS INC HELIPORT 10 NE
620 FSS: FORT WORTH (LC MA 4-8[illegible]

FORT WORTH
FORT WORTH CENTER HELIPORT
550 75X75 FSS: FORT WORTH (LC MA 4-8[illegible]

FORT WORTH
MUNICIPAL HELIPORT Center of City
552 FSS: FORT WORTH (LC MA 4-8[illegible]

FORT WORTH
SOUTHWEST REGIONAL HQ HELIPORT 4 N
667 FSS: FORT WORTH (LC MA 4-8[illegible]

MIDLAND
MIDLAND AIR TERMINAL HELIPAD 7 SW
2867 F10 FSS: MIDLAND on Fld

MINERAL WELLS
MINERAL WELLS HELIPAD 3 SE
964 F10 FSS: MINERAL WELLS on Fld

HELIPORT DIRECTORY

TEXAS–Continued

ANTONIO
ANTONIO INTL HELIPORT 7 N
08 F10 FSS: SAN ANTONIO on Fld

ORIA
TORIA CNTY FOSTER HELIPORT 6 NE
12 BL6 F10 FSS: PALACIOS (LC 824-2218)

UTAH

N
DEN MUNICIPAL HELIPORT 3 SW
455 F4 FSS: SALT LAKE CITY (LC EX 4-8712)

VERMONT

INGTON
RLINGTON MUNI HELIPAD 3 E AOE
35 B F4 FSS: MONTPELIER (LC 878-3393)

VIRGINIA

ERICKSBURG
NNON A HELIPORT 3 S
2 B F2, 4, 5 FSS: CHARLOTTESVILLE

OLK
RFOLK MUNICIPAL HELIPORT 5 NE
6 F10 FSS: NEWPORT NEWS (DL)

MOND
RTHFIELD HELIPORT 6 N
97 F4 FSS: RICHMOND (LC RE 7-8103)

WASHINGTON

RN
CREST HELIPORT 2 SE
76 F4 FSS: SEATTLE (DL)

HERE
HMERE-DRYDEN HELIPAD 1 SW
50 F3 FSS: WENATCHEE

ALIS
HALIS CITY HELIPORT 1 NW
74 F4 FSS: TOLEDO

KSTON
ITIN COUNTY HELIPAD 1 N
50 BL4 F3 FSS: WALLA WALLA

WASHINGTON–Continued

EVERETT
PAINE FIELD HELIPAD 6 SW
603 F10 FSS: SEATTLE (DL)

HUNTSVILLE
TOUCHET VALLEY HELIPORT 1 SE
1325

MOSES LAKE
MOSES LAKE HELIPAD 2 NE
1202 F4 FSS: EUPHRATA

PUYALLUP
THUNFIELD HELIPORT 5 S
520 B F4 FSS: SEATTLE

SEATTLE
BOEING FIELD HELIPORT 4 S
17 BL6 F10 FSS: SEATTLE (DL)

VANCOUVER
PEARSON AIRPARK HELIPAD Adj SW
26 L4 F4 FSS: PORTLAND (DL)

YAKIMA
YAKIMA MUNICIPAL HELIPORT 2 SW
1082 B F10 FSS: YAKIMA on Fld

WEST VIRGINIA

BRIDGEPORT
BRIDGEPORT HELIPORT
1200 F2

CHARLESTON
KANAWHA AIRPORT HELIPORT 3 NE
982 BL6 SPECIAL FSS: CHARLESTON on Fld

WISCONSIN

JANESVILLE
ROCK COUNTY HELIPORT 4 SW
808 F10 FSS: ROCKFORD (LC PL2-8402)

MILWAUKEE
GENERAL MITCHELL FLD HELIPORT 5 S
702 F10 FSS: MILWAUKEE on Fld

WYOMING

CHEYENNE
CHEYENNE MUNICIPAL HELIPORT 1 N
6156 B F10 FSS: CHEYENNE on Fld

GREYBULL
SOUTH BIG HORN COUNTY 2 NW
3932 FSS: WORLAND

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SECTION IV A

AIRPORT/FACILITY DIRECTORY

EFFECTIVE 0501Z 10 DECEMBER 1964

To 0501Z 7 JANUARY 1965

753-036 O—64—IV-A—1

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Flight Service Station Communications Frequencies and Telephone Numbers IV-A–37

ALABAMA

RMINGHAM MUNI *IFR* 4 NE (178° 2.6 NM from BHM RBN)
643 H92/5-23 (2) (S-120, T-170, TT-300) BL6, 8 S5
F5, JP1, JP4 U2 RVR: Rnwy 5 FSS: BIRMINGHAM on Fld
REMARKS: Acft arresting barriers on overrun rnwy 23. Rnwy 23 threshold displaced 1761' SW. Rnwy 5 9247' lgtd full length.
TOWER 118.7 126.2 122.5R 114.4T 110.3T
GND CON 121.9
APP CON 119.9 126.2 114.4T 110.3T
RADAR SERVICES:
DEP CON 124.9
TFC INFO Ctc APP CON 25 NM out.
ASR Rnwys 5, 23 Ceil 600 Vsby 1 mi Min Alt 1243. Rnwy 18 Ceil 700 Vsby 1 mi Min Alt 1343 Rnwy 36 Ceil 800' Vsby 1 mi Alt 1443.
ILS 110.3 I-BHM Apch Brg 052 BC unusable
VHF/DF available, contact Tower.
REMARKS: VOT: 112.0

NTSVILLE-MADISON CO. *IFR* 3 S (157° 6.4 NM from HSV VOR)
619 H52/18-36 (2) (S-50, T-85, TT-130) BL4, 6, 8 S5
F4, JP1, JP4 RVV: Rnwy 18 FSS: MUSCLE SHOALS (DL)
TOWER 119.7 122.5R 109.0T GND CON 121.9
APP CON 125.6 122.5R 109.0T
ILS 109.3 I-HSV Apch Brg 178°

BILE
ATES FLD *IFR* 9 W (107° 6.3 NM from MOB VORTAC)
217 H68/14-32 (3) (S-40, T-150, TT-280) BL4, 6, 8A S5
F5 JP1 U2 RVV: Rnwy 14 FSS: MOBILE on Fld
TOWER 118.3 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
MOBILE APP CON[1] 118.5 126.2 123.7 122.5R 115.3T 112.8T
MOBILE DEP CON 134.1 125.7
ILS 109.9 I-MOB Apch Brg 139° BC unusable
REMARKS: [1]APP CON unable to provide complete radar tfc advy svc fm BFM VORTAC 090°-110° rad.

NTGOMERY
ANNELLY FLD *IFR* 6 SW (318° 5.6 NM from MGM VORTAC)
221 H90/9-27 (3) (S-120, T-170, TT-300) BL4, 6, 8 S5
F4 JP1 U2 RVR: Rnwy 9 FSS: MONTGOMERY on Fld
REMARKS: J-Bar rnwy 9-27. Rstd to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel.
TOWER 119.7 126.2 122.5R 109.9T
CLRNC DEL 121.9
GND CON 121.9
RADAR SERVICES: (BCN)
MONTGOMERY APP CON 121.1 126.2 122.7R 112.1T
MONTGOMERY DEP CON 125.5 124.0
TFC INFO Ctc Montgomery APP CON on 121.1 (Low) aprx 25 mi out.
ASR Rnwy 9, 27 Ceil 400 Vsby 1 mi Min Alt 621
ILS 109.9 I-MGM Apch Brg 093°
REMARKS: IFF/SIF SVC avbl.

ARIZONA

PHOENIX
SKY HARBOR MUNI *IFR* 3 E (256° 5.3 NM from PHX VOR)
1122 H103/8R-26L (2) (S-170, T-300, TT-595) BL4, 10 S5
F5 JP1 U2 VASI: Rnwy 8R FSS: PHOENIX on Fld
PHOENIX TOWER 118.7 126.2 122.5R 120.9 278T
CLRNC DEL 120.4 PHOENIX GND CON 121.9
PHOENIX APP CON 118.1 126.2 122.5R 115.6T
REMARKS: VOT: 109.0

TUCSON INTL *IFR* 6 S (254° 6.1 NM from TUS VOR) AOE
2630 H120/12L-30R (3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2 FSS: TUCSON on Fld
REMARKS: 5649 ft avbl lngd rnwy 3, 6000 ft avbl rnwy 21.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.5 134.1 126.2 125.9 125.1 122.5R
DEP CON 125.9 TFC INFO ctc APP CON 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.

ARKANSAS

FORT SMITH MUNI *IFR* 4 SE (225° 5.2 NM from FSM VOR)
468 80H/7-25 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F-5, JP-1 U2 RVV: Rnwy 25 FSS: FORT SMITH on Fld
TOWER 118.3 126.2 122.5R GND CON 121.9
APP CON 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 253° BC unusable

HOT SPRINGS
MEMORIAL FLD *IFR* 3 SW (HOT VOR on Fld)
535 H50/5-23 (2) (S-30, T-40, TT-) BL4 S5 F4
FSS: PINE BLUFF (LC NA 4-4481)
REMARKS: Rnwy 31 clsd ngt lndgs to air carrier acft due unlgtd obstn.
TOWER 120.3 122.5R 110.0T 248T GND CON 121.7
HOT SPRINGS APP CON 120.3 122.5R 110.0T 248T

LITTLE ROCK
ADAMS FLD *IFR* 2E (314° 3.8 NM from LIT VOR)
257 H70/4-22 (3) (S-90, T-180, TT-) BL4, 6, 8 S5
F4, JP1, JP4 U2 RVV: Rnwy 4
FSS: PINE BLUFF (LC FR 5-2790)
TOWER 118.7 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
LITTLE ROCK APP CON 119.5 126.2 124.2 122.5R 113.9T
LITTLE ROCK DEP CON 118.1
ASR Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 040°
REMARKS: ASR Apch not auth rnwy 17 and 14. IFF/SIF svc avbl.

CALIFORNIA

BAKERSFIELD
MEADOWS FIELD *IFR* 4 NW (131° 3.4 NM from BFL VOR)
488 H57/12L-30R (2) (S-110, T-170, TT-300) BL4, 6, 8A
S5 F5, JP1 U2 RVV: Rnwy 30R
FSS: BAKERSFIELD on Fld
TOWER 118.1 126.2 122.5R 227T
GND CON 121.9 BAKERSFIELD APP CON 118.8 126.2 115.4T BAKERSFIELD DEP CON 118.8
ILS 109.9 I-BFL Apch Brg 299°

BURBANK

LOCKHEED AIR TERMINAL *IFR* 3 NW (286° 3.3 fm Glendale Rbn.)

775 H69/15-33 (2) (S-80, T-150, TT-280) BL4, 6, 8A S5 F5, JP1, 4 U2 **RVV:** Rnwy 7 **FSS:** LOS ANGELES (DL)

REMARKS: Rnwy 15 displaced threshold 900 ft. S 6060 ft avbl lndg rnwy 15. Rnwy 33 displaced threshold 410 ft S. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.

BURBANK TOWER 118.7 126.2 122.7R 260T
CLRNC DEL 118.0 **BURBANK GND CON** 121.9
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
TFC INFO Ctc Burbank A/C on 120.9 30 mi out.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS 109.5 I-BUR Apch. Brg 076°
VHF/DF[1] available, contact Tower.

REMARKS: [1]Unusable beyond 30 NM below 13,000' 360°-085°; below 4000' 085°-240°; below 6000' 240°-320°; below 10,000 320°-360°.

VOT: 110.0

CONCORD

BUCHANAN FIELD 2 NW (011° 17.5 NM from OAK VOR)

19 H50/1-19 (3) (S-60, T-80, TT-130) BL4 S5 F4 **FSS:** OAKLAND (DL)

TOWER[1] 119.7 122.4R 326T **GND CON** 121.9

REMARKS: [1]Tower operates 1500Z-0700Z

FRESNO AIR TERMINAL *IFR* 5 NE (133° 7.1 NM from FAT VOR

332 H92/11-29 (2) (S-40, T-55, TT-) BL4, 6, 8 S5 F4, JP1, JP4 **RVV:** Rnwys 11, 29 **FSS:** FRESNO on Fld

REMARKS: CTN-First 850 ft rnwy 29 Designated overrun. Tkof and lndg in overrun area prohibited. Jet acft clbg and dsndg in areas of extended centerliners rnwys 11-29 N, NE, E, SE. Transmissometer comsnd. Rgt tfc rnwy 7 & 11

TOWER 118.7 126.2 122.7R 251T **GND CON** 121.9
RADAR SERVICES: (BCN)
APP CON 119.6 119.1 122.5R
DEP CON 119.1
ILS 110.3 I-FAT Apch Brg 288°

FRESNO-CHANDLER *IFR* 2 W (168° 9.2 NM from FAT VOR)

283 H32/11L-29R (1) (Max 15) BL4, 6, 8A S5 F4 U2 **FSS:** FRESNO (LC 251-8260)

REMARKS: Arpt clsd to all tfc btn 11 pm to sr ufn. [1]Arpt clsd to acft weighing in excess of 12500 lbs. [2]Flarepots will be used for rnwy and tywy lgtg dur const. Rgt tfc rnwy 11L

CHANDLER TOWER [1]121.1 122.5R 278T
CHANDLER GND CON 121.7
RADAR SERVICES: (BCN)
FRESNO APP CON 119.6 119.1 122.5R
FRESNO DEP CON 119.1

REMARKS: [1]Oper 1400-0600Z.

FULLERTON MUNI *IFR* 3 W (020° 6.5 NM from LGB VORTAC

96 H28/6-24 (1) (Max. 8) BL4 S5 F4 U2 **TPA:** 24R 1200 **FSS:** LOS ANGELES (DL)

REMARKS: Due non-vsby of portions of fld ctc twr for instrn. Rnwy 6 displaced threshold 437 ft E. 2683 ft avbl lndg rnwy 6. Rnwy 24 displaced threshold 263 ft W. 2857 ft avbl lndg rnwy 24. Rnwy 24 apch restricted by poleline-glide angle 13 to 1. Rgt tfc rnwy 24. Entry alt 1200 ft MSL.

TOWER 119.1 122.6R **GND CON** 121.7
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2

HAWTHORNE MUNI *IFR* 1 E (083° 4.5 NM from LAX VORTAC

64 H45/7-25 (1) (S-30, T-40, TT-) BL4 S-5 F4 U2 **FSS:** LOS ANGELES (DL)

REMARKS: Rnwy 7 displaced threshold 1025 ft E. 3975 ft avbl lndg rnwy 7. Runwy 25 displaced threshold 475 ft E. 4525 ft avbl lndg rnwy 25. Prior apvl rqrd for single eng ac 100 HP or more. Rnwy 25 apch restricted by poleline-glide Angle 12 to 1. Due non-vis of some areas ctc twr for instr. Rgt tfc E.

TOWER[1] 121.1 122.5R **GND CON** 121.9
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 12 .3[2] 125.2[3]

REMARKS: [1]Oper 1500-0700Z. 45°-224°. [3]225°-044°.

HAYWARD AIR TRML *IFR* 2 SW (114° 5.9 NM from OAK VOR

46 H52/10R-28L (2) (S-100, T-190, TT-290) BL4 S5 **FSS:** OAKLAND (LC 536-577)

REMARKS: Jet acft prohibited excp in emgcy.

TOWER 118.9 126.2 122.5R 212T **GND CON** 121.7
RADAR SERVICES:
OAKLAND APP CON 118.1 126.2 116.8T
OAKLAND DEP CON 124.7 120.9 116.8T

LONG BEACH *IFR* 3 NE (274° 4.4 NM from LGB VOR)

LONG BEACH (Daugherty Fld)

58 H100/12-30 (5) (S-90, T140, TT-240) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 U2 **FSS:** LOS ANGELES (LC 591-1201)

REMARKS: Due non-vsby on some portions of arpt ctc twr. All itinerant acft ctc Long Beach apch ctl regarless of wx at least 20 mi fm arpt. Constr adj to rnwys and twys aprx Dec 15 64. Ctn when operg VFR conditions vic Los Alamitos NAS. Mil jet and reciprocating acft crossing shore line 4000 ft and below arr and dep btn Huntington Beach and Long Beach Arpts. Rgt tfc rnwys 7R, 16R, 25R, 34R.

LONG BEACH TOWER 119.5 [3]120.5 [3]126.2 122.4R 242
LONG BEACH GND CON 121.9
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Alt 558
ILS 110.3 I-LGB Apch Brg 300°
VHF/DF available, contact Tower.

REMARKS: All itinerant acft arriving Long Beach are encouraged to make initial ctc with Long Beach APP CON on 135.8, regardless of wx APP CON will provide acft with direction, rnwy in use and tfc advisory. Calls should be made at least 20 mi fm aprt. [2]069°-250° and for rnwys 25L, 34L, 34R, 07R or 30. [3]251°-070° and for rnwys 25R, 12, 16L, 07L or 12.

VOT: 109.0

LOS ANGELES INTL *IFR* 9 SW (071° 0.6 NM from LAX VOR

126 H120/7R-25L (4) (S-150, T-200, TT-400) BL4, 6, 8A 10, 11 S5 F5, JP1, 4 U2 **VASI:** Rnwy 7R **RVV:** Rnwys 6, 24, 7R/L **RVR:** Rnwy 25 **FSS:** LOS ANGELES (LC 645-9423)

REMARKS: Ctn-jet acft oper off W shore dep rnwys 25L, 25R clbg vfr 200°. Corridor orig max 3000 ft at apprx int of extnd centerlines of abv rnwys, acft E fm off shore VFR making a tk aprx extded centerlines of abv rnwys ctn not dsnd blo 4000 ft til past shoreline or LAX VORTAC unless cleared by ATCT Tfc avoid apch area W and E btn Downey RBn and fld blo 3000 ft MSL, otherwise blo 3000 ft flt LAX apch ctl. Jet acft lcl VFR flts cross shoreline blo 3000 ft then clb 200° to 26000 ft or clear of ctl area. Rtrng flts procd over NW tip Catalina Is dsndg via Pt Vicente to arpt. Rnwy 34 threshold displaced 1679 ft N. Rnwys 25L and 25R thresholds displaced 600 ft W. Acft making low passes over rnwy 25R or lndg 7L maintain crs along extended centerline these rnwys to shoreline. Ctc twr for dep rnwys 25R, 25L, 7R and 7L concerning flashing beacons. Rnwy 7L-25R being extended 2000 ft on W end. Threshold lgts replaced by red blinkers. Lndg Rgts arpt. Transmissometer oper on rnwys 7L, 7R, 25L, 25R, 6 and 24[1] Rnwy 16-34 S-125, T-200, TT-400

[1]Providing components operg ctc twr for instr.

TOWER 118.9 125.8 123.7[1] 122.7R

CLRNC DEL 118.6 126.85 121.4 GND CON 121.8

RADAR SERVICES:

APP CON 124.9[3] 119.3[4] 113.6T 109.9T

DEP CON 125.2[5] 124.3[3]

TFC INFO ctc APP CON 30 mi out.

PAR Rnwy 25R Ceil 300 Vsby 3/4 mi Min alt 426 Rnwy 25L Ceil 200 Vsby ½ mi Min alt 326 ASR Rnwys 6, 7R, 24[6], 25L Ceil 500 Vsby 1 mi Min Alt 626

ILS 109.9 I-LAX Apch Brg 248°

VHF DF avail, ctc twr.

REMARKS: [3]Heli Ops [3]045°-224°. [4]225°-044°. [5]Acft inbnd on Fap will dsnd not lwr than 1300 until pilot is notified by RAP CON that he has passed apt 4 mi from the rnwy.

VOT: 112.0

TEREY PENINSULA *IFR* 3 SE (096° 4.3 NM from MR COM)

220 H50/10-28 (2) (S-40, T-70, TT-120) BL4, 6, 8 S5

FS, JP1 U2 FSS: SALINAS (DL)

REMARKS: Rnwy 28 has downgrade 1 ½ percent. Lndg acft non-reversible propes ctn during hours of darkness

MONTEREY TOWER 119.9 122.5R 281T

MONTEREY GND CON 121.9

MONTEREY APP CON 120.8

MONTEREY DEP CON 120.8

LS 110.1 I-MRY Apch Brg 096°

AND

TROPOLITAN-OAKLAND INTL *IFR* 4 S (OAK VOR on field)

H100/11-29 (4) (S-100, T-160, TT-290) BL6, 8 S5

S, TF1, JP4 U2 RVV: Rnwy 27R RVR: Rnwy 29

FSS: OAKLAND on Fld

EMARKS: Large Jet acft use rnwy 11-29. Due non-vis of some areas ctc twr for instr. Rnwy 33 threshold displaced 2113 ft N. Ctn-birds vic environs of arpt. Rgt tfc rnwys 27R, 27L, 33 & 11.

DAKLAND TOWER 118.3 126.2 126.0 122.6R 116.8T

341T 266T CLRNC DEL 126.6 121.1

OAKLAND GND CON 121.9 121.6

ADAR SERVICES:

OAKLAND APP CON 118.1 126.2 116.8T

OAKLAND DEP CON 120.9 124.7 116.8T

TFC INFO Coll APP CON 25 mi out.

PAR Rnwy 29 Ceil 200 Vsby ½ mi Min Alt 206

ASR Rnwy 9L, 11, 27R, 29 Ceil 400 Vsby 1 mi Min Alt 406

ILS 108.7 I-INB Apch Brg 299° 109.9 I-OAK Apch Brg 275°

VHF/DF available, contact Tower.

REMARKS: VOT: 110.2

ONTARIO INTL *IFR* 2 E

952 H100/7-25 (2) (S80, T120, TT220) BL6, 8A S5

FS, JP1, 4 U2 RVV: Rnwy 25 FSS: ONTARIO on Fld

REMARKS: Due non-vis on some areas ctc twr for instr. Acft not lndg at fld avoid apch dep area E and W blo 3000 ft MSL in VFR wea. Twr tfc operg E quad exercise ctn extsn sim IFR inclg jets VFR and actual apchs IFR wea. Rnwy 7 threshold displaced 1000 ft E. 1000 ft overrun E end rnwy 7-25.

TOWER 118.5 126.2 122.5R 215T CLRNC DEL 123.6

GND CON 121.9

RADAR SERVICES: (BCN)

MARCH APP CON 120.8 122.5R 111.4T

MARCH DEP CON 125.5 122.5R

ILS 109.7 I-ONT Apch Brg 255°

OXNARD

VENTURA COUNTY *IFR* 1 W (261° 5.5 NM from CAV RBN)

43 H59/7-25 (1) (S-100, T-135, TT-) BL4 S5 F4

FSS: SANTA BARBARA (DL)

REMARKS: Rotl Rnwy 25. Rnwy 25 Threshold Displaced 1377 ft W. 4570 ft avbl lndg rnwy 25. Rnwy 7 Threshold 750 ft E. 5197 ft avbl lndg rnwy 7. Due non-vis some areas arpt ctc twr for instr.

TOWER 120.7 122.5R GND CON 121.9

APP CON 124.7 122.5R

SACRAMENTO MUNI *IFR* 3 SW (015° 4.4 NM from SAC VOR

21 H60/2-20 (3) (S-90, T-120, TT-180) BL4, 6, 8 S5

FS, JP4 U2 RVV: Rnwy 2 FSS: SACRAMENTO on Fld

REMARKS: Apch lgts are 2500 ft long. Twr tfc operg SW quad excercise ctn extsv instr apch including jets vfr wea actual apchs ifr wea. Due non-vis on some areas of fld ctc twr for instr. Rnwy 16 apch restricted by antenna-glide angle 12 to 1.

TOWER 119.5 126.2 122.5R 260T GND CON 121.9

RADAR SERVICES:

APP CON 119.1 [1]134.1 123.6 [2]122.5R

DEP CON 124.5

ILS 110.3 I-SAC Apch Brg 015°

REMARKS: [1]Below 5000'. [2]5000' or above.

SAN DIEGO CO-GILLESPIE FIELD 10 NE (065° 13.3 from SAN VOR)

385 H53/9-27 (2) (S-60, T-80, TT) BL4 S5 F4

U2 FSS: SAN DIEGO (LC 296-3181)

REMARKS: Rnwy 27 threshold displaced 1300 ft W. 4040 ft avbl lndg rnwy 27. Due non-vis some areas of fld ctc twr for instr. Ctn-birds vic arpt. Rnwy 17-35 restricted to acft under 12,500 lbs gwt.

GILLESPIE TOWER[1] 120.7 122.7R 379T

GILLESPIE GND CON 121.7

REMARKS: [1]Tower operates 1400-0600Z

SAN DIEGO INTL-LINDBERGH FLD *IFR* 2 W (LIF VOR on fld)

AOE

15 H81/9-27 (2) (S-200, T-200, TT-400) BL4, 6, 8A S-5

FS, JP1 U2 FSS: SAN DIEGO on Fld

REMARKS: Rnwy 27 threshold displaced 600 ft W. 8100 ft avbl lndg rnwy 27. Rnwy 31 apch restricted by poleline-glide angle 5 to 1. VFR str-in apch rnwy 9 must maint min 700 ft MSL until 1.5 mi fm rnwy. Dep rnwy 27 turn rgt 315° and ctc twr. Due non vsby some areas of fld ctc twr for instr.
TOWER 118.3 126.2 122.5R 109.6T 245T GND CON 121.9
RADAR SERVICES: (BCN)
SAN DIEGO APP CON 119.6 127.7 126.2 125.7[1] 125.3[2] 122.7R 218T
SAN DIEGO DEP CON 125.7[3] 125.3[4]
TFC INFO Contact A/C over Oceanside, Jamul, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I-SAN Apch Brg 091°
REMARKS: [1]East arrival. [2]West-Northwest arrival. [3]East departure. [4]West/Northwest departure.
VOT: 109.0

SAN FRANCISCO INTL *IFR* 8 SE (SFO VOR on fld)
10 H95/10-28 (4) (S-200, T-200, TT-400) BL6, 8A, 10, 11
S-5 F5, JP1 U2 VASI: Rnwy 19L RVV: Rnwys 1, 19
RVR: Rnwy 28R FSS: OAKLAND (DL)
REMARKS: Ctc twr for preferential rnwy system under VFR conditions. Rnwy 28R displaced threshold 200 ft NW. 9496 ft avbl lndg rnwy 28R. Rnwy 1R displaced threshold 1100 ft NE. 8400 ft avbl lndg rnwy 1R. Ctc Air Carrier Sect FAA for use of 1000 ft clearway rnwy 1R. Acft remain on rnwys. Ctn-birds vic arpt. REIL N end rnwy 19L and E end rnwy 28L inop. Ctc twr for taxy instr. 120 ft High pile driver, 500 ft W of ctl twr ufn. Apch lgts system rnwy 19L 1100 ft long. Due non-vsby some areas of fld ctc twr for instr. Rnwy vsby observer program jointly conducted by Wea Bureau & FAA twr for rnwys 28R, 19L & 1R are in effect.
TOWER 120.5 126.2X 122.7R 121.4 348T
GND CON 121.8
RADAR SERVICES:
APP CON 124.9[1] 126.2X 119.3[2] 111.2T 109.5T
DEP CON 124.4 128.5
PAR Rnwy 28L Ceil 300 Vsby 3/4 mi Min Alt 310.
Rnwy 28R Ceil 200 Vsby 1.2 mi Min Alt 210.
ASR Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 510.
Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 410.
ILS 109.5 I-SFO Apch. Brg 281°
VHF/DF available, contact tower.
REMARKS: [1]315°-134°, [2]135°-314°, PAR svc not avbl to rnwy 28L UFN.
VOT: 111.0

SAN JOSE MUNI *IFR* 2 NW (SJC VOR on fld)
56 H78/12R-30L (2) (S-60, T-90, TT-) BL4, 8 S5
F4, JP1 U2 RVV: Rnwy 30L FSS: OAKLAND (DL)
REMARKS: Rnwy 30L threshold displaced 1475 ft NW. 6312 ft avbl lndg rnwy 30L. Due non-vsby some areas of fld ctc twr for instr. Pilots of multi-eng acft dep rnwy 30L reqrd to run-up facing S to avoid blowing parked acft. Do not taxy on to rnwy 30L threshold unless cleared by twr.
TOWER 120.7 122.4R 248T GND CON 121.7
RADAR SERVICES: (BCN)
MOFFETT APP CON 120.1 123.7 122.4R 110.9T 108.2T
MOFFETT DEP CON 121.3 122.4R 108.2T
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
VHF/DF available, contact tower
REMARKS: IFF svc avbl

SANTA ANA
ORANGE COUNTY *IFR* 4 S (192° 0.3 NM from SNA VOR)
54 H48/3-21 (1) (S-30, T-40, TT-) BL4 S-5 F4
FSS: LOS ANGELES
REMARKS: After tkof rnwy 21 climb to 1500 ft over bch before making rgt turn. Ctn-during VFR conditions. CTN-Birds vic arpt. Use arpt at pilots discretion during hrs 11 pm - 6 when twr not oper. Limited itinerant parking.
TOWER 119.9 122.5R GND CON
RADAR SERVICES: (BCN)
EL TORO APP CON 121.3 134.1 124.1X 122.5R
EL TORO DEP CON 121.3

SANTA BARBARA MUNI *IFR* 7 W (197° 5.5 NM from SBA VOR)
14 H47/7-25 (3) (S-40, T-71, TT-117) BL4, 6, 8 S5
F5, JP5, U2 RVV: Rnwy 7
FSS: SANTA BARBARA
REMARKS: Apch lgts 2900 ft long. Rnwy 25 overrun graded. Rnwy 25 threshold displaced 296 ft W 4420 ft avbl lndg rnwy 25. Due non-vsby some areas of arpt ctc twr for instr. Ctn-birds vic arpt.
TOWER 119.7 122.7R 110.3T 338T GND CON
APP CON 125.4
ILS 110.3 I-SBA Apch Brg 073°

SANTA MONICA MUNI *IFR* 3 E (SMO VOR on field)
175 H50/3-21 (1) (S-90, T-120, TT-) BL4 S5 F5
U2 FSS: LOS ANGELES
REMARKS: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Txwys unlgtd. Due to [illegible] some areas of arpt ctc twr for instr. Gen avia fee free first 6 hrs. Reil's being installed. Rgt tfc rnwy 3.
TOWER 120.3 126.2 122.5R GND CON
RADAR SERVICES:
LOS ANGELES APP CON 124.9[1] 119.3[2] 113.6T 135.6T
LOS ANGELES DEP CON 124.3[1] 125.2[2]
REMARKS: [1]045°-224°, [2]225°-044°
VOT: 110.2

SANTA ROSA
SONOMA COUNTY 6 NW (349° 25.5 NM from PYE VOR)
125 H50/1-19 (2) (S-80, T-130, TT-220) BL4 S5 F4
U2 FSS
REMARKS: Due non-vsby some areas of arpt ctc twr for instr.
TOWER[1] 118.5 122.5R GND CON
REMARKS: [1]Operates 1400-0600Z

STOCKTON METROPOLITAN *IFR* 3 S (304° 4 NM from SCK VOR)
27 H86/11 L-29R (4) (S-120, T-200, TT-400) BL6 S5
F4, TF1 U2 FSS: STOCKTON
REMARKS: Due non-vsby some areas of arpt ctc twr for instr. Ctc twr for taxiing instr due weight restrictions. Penetrations lctd bet 935 ft and 2470 ft fm apch end [illegible] into apch zone rgt and left of centerline.
TOWER 120.3 122.5R 230T GND CON
RADAR SERVICES:
APP CON 125.1 116.0T 109.1T 230T
ILS 109.1 I-SCK Apch Brg 291° BC Unusable

TORRANCE MUNI *IFR* 3 SW (135° 8.6 NM from LAX VOR)
101 H50/11L-29R (2) (S-30, T-50, TT-80) BL4 S5 F5
U2 TPA: 29R 800 FSS: LOS ANGELES

REMARKS: Both ends rnwy 11L-29R displaced thresholds 550 ft. 4450 ft avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am. Remain on paved areas. Due non-vsby some areas of arpt ctc twr for instr. Do not lnd on txwy lctd parallel to and S of rnwy 11R-29L. Taxi signs adj to ends of txwy marked with white "X".
TOWER[1] 118.1 122.5R GND CON 121.7
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 125.2[3] 124.3[2]
LONG BEACH DEP CON 127.2
REMARKS: [1]Tower oper 1800Z-SS Mon-Fri. 1700-SS Sat, Sun & holidays. [2]045°-224°. [3]225°-044°.

ANGELES (VAN NUYS)
N NUYS *IFR* 3 NW (BU LOM on fld)
800 H80/16R-34L (2) (S-50, T-70, TT-100) BL4 S-5
F4, JP4, 5 U2 FSS: LOS ANGELES (DL)
REMARKS: Rnwy 16R threshold displaced 1376 ft S. 6624 ft avbl indg rnwy 16R. Rnwy 16L-34R daylgt use only Rnwy 16L threshold displaced 1432 ft S. 2568 ft avbl lndg rnwy 16L. Parallel 2000 ft strip bet 16L-34R and 16R-34L clsd except emerg. Ctn-birds vic arpt. Arpt tfc ctl twr test evaluation. Info recorded continuously over the Van Nuys VOT. Touch and go lndgs prohibited on Sat and Sun after 1 pm. Depressions along edges of east N-S txwy wt limitation 45,000 lbs. Taxi with ctn. Acft over 15,000 lbs reg taxi instr dalgt hrs, after dark turn off at end of rnwy.
TOWER 120.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
ILS 109.5 I-BUR Apch Brg 076°

COLORADO

ORADO SPRINGS
TERSON FIELD *IFR* 6 SE (PEF VOR on fld)
5172 H91/17-35 (3) (S-125, T-200, TT-400) BL4, 6, 8 S5
F5, JP1, 4 RVR: Rnwy 35 FSS: DENVER (LC ME4-3127)
TOWER 119.9 126.2 122.5R 215T GND CON 121.7
RADAR SERVICES:
COLORADO SPRINGS APP CON 118.5 126.2 122.5R 109.9T
COLORADO SPRINGS DEP CON 120.2
TFC INFO Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 300 Vsby 3/4 mi Min Alt 6472
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
LS 109.9 I-COS Apch Brg 346°
HF/DF available, contact tower.

ER
APLETON AIRFIELD *IFR* 4 E (213° 8.1 NM from DEN VOR)
331 H115/17-35 (4) (S-120, T-200, TT-350) BL4, 6, 8, 9
S FS, JP1 VASI: Rnwys 8R, 17 RVV: Rnwy 35
VR: Rnwy 26L FSS: DENVER on Fld
OWER 118.3 126.2 119.3 122.5R 3023.5R 335T
GND CON 121.9 121.7
ADAR SERVICES:
DENVER APP CON 119.5[1] 126.2 122.5R 120.5[2] 116.3T 110.3T
DENVER DEP CON 124.8
TFC INFO Ctc APP CON
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 8971
ILS 110.3 I-DEN Apch Brg 256° 108.1 I-SPO Apch Brg 349°
VHF/DF available contact tower.
REMARKS: [1]270°-089°. [2]090°-269°.
VOT: 111.0

GRAND JUNCTION
WALKER FIELD *IFR* 3 NE (110° 9.6 NM from GJT RBN)
4857 H54/11-29 (2) (S-60, T-80, TT-120) BL2, 4, 6, 7
S5 F4 U2 FSS: GRAND JUNCTION on Fld
REMARKS: Rnwy 4-22 restricted to acft over 12,500 lbs.
TOWER 118.1 122.5R GND CON 121.9
GRAND JUNCTION APP CON 119.7 122.5R 112.4T 110.3T
ILS 110.3 I-GJT Apch Brg 110°

PUEBLO MEML *IFR* 5 E (248° 2.4 NM from PUB VOR)
4725 H85/7-25 (3) (S-90, T-129, TT-216) BL4, 6, 8 S5
F5 RVV: Rnwy 7 FSS: PUEBLO on Fld
TOWER 119.1 126.2 122.5R 285T GND CON 121.9
APP CON 120.1 126.2 119.1 116.7T
ILS 109.5 I-PUB Apch Brg 075°

CONNECTICUT

BRIDGEPORT MUNI *IFR* 3 SE (BDR VOR on fld)
9 H47/11-29 (3) (S-35, T-45, TT-) BL4, 6 S4 F5, JP1, 4 U2 FSS: WINDSOR LOCKS (DL)
REMARKS: Apch to rnwys 16, 29 blkd by trees.
TOWER 120.9 122.5R 108.8T GND CON 121.9
WESTCHESTER APP CON 121.2 122.5R 3023.5RX

EAST HARTFORD
RENTSCHLER FIELD *IFR* 1 E (347° 7 NM from HFD VOR)
45 H58 18-36 (3) (S-46, T-75, TT-130) BL4 S5 F4
FSS: WINDSOR LOCKS (DL)
REMARKS: Clsd to public. US Customs-lndg rts arpt. Rnwy 18 apch rest by poleline-glide angle 8 to 1. Arpt atnd 7am to midnite.
TOWER 119.9 126.2 GND CON 121.9
RADAR SERVICES:
BRADLEY APP CON 119.4 124.6 122.5R
BRADLEY DEP CON 125.35
REMARKS: [1]Twr oper 0200-1800Z

WINDSOR LOCKS
BRADLEY FIELD *IFR* 3 W (058° 4.5 NM from BD LOM)
173 H95/6-24 (3) (S-100, T-200, TT-400) BL4, 6, 8 S5
F5, JP4, 5 U2 FSS: WINDSOR LOCKS on Fld
REMARKS: Rnwy 6-24 A-Gear both ends.
TOWER 120.3 126.2 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 119.4 124.6 122.5R
DEP CON 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I-BDL Apch Brg 058°
REMARKS: Glide slope rnwy 6 unusable below 373 ft.

DELAWARE

WILMINGTON
GREATER WILMINGTON *IFR* 4 S (EWT VOR on fld)
79 H70/1-19 (3) (S-140, T-200, TT-320) BL4, 6, 8 S5
F4, JP1 U2 FSS: MILLVILLE (DL)

REMARKS: Ils apch zone rnwy 1 has penetrations in the 50:1 plane; obstn lgtd flood lgt pole 840' from apch end of rnwy, 457' rgt of cntrline penetrating 6.9°; a gas stn sign 1554' from apch end of rnwy, 280' left of cntrline penetrating 5.9' obstn lgtd gas stn sign 975' from apch end of rnwy, 388' rgt of cntrline penetrating 4.3°; a 16' truck on hwy 360° to 680° from apch end of rnwy, 540° to 350° rgt of cntrline penetrating 4.7°; a market sign 730° from approach end of runway, 560° right of centerline penetrating 2.6°. Rnwy 5-23 clsd acft over 12,500 lbs. Clsd 2230-0700 to practice apchs or lndgs by turbojet and turbofan over 100,000 GWT due to noise complaints.

NEW CASTLE TOWER 120.3 122.5R 110.3T
NEW CASTLE GND CON 121.9
NEW CASTLE APP CON 120.7 110.3T
ILS 110.3 I-ILG Apch Brg 014°
VHF/DF available, contact tower

DISTRICT OF COLUMBIA

WASHINGTON

DULLES INTL *IFR* 21 W (186° 7.3 NM from PLV RBN)
313 H115/1L/19R (3) (S-200, T-290, TT-500) BL6, 8A, 10, 14, 15 S5 F5, JP1, 5 U2 VASI: Rnwy 12
RVR: Rnwy 1R FSS: WASHINGTON (DL)
TOWER 119.7 122.7R
CLRNC DEL 127.4 GND CON 121.65 121.9
RADAR SERVICES: (BCN)
APP CON 125.0 126.1
DEP CON 125.55
PAR Rnwy 1R Ceil 200 Vsby 1/2 mi Min Alt 513
ASR Rnwys 1R, 1L 12, 19L, 30 Ceil 400 Vsby 1 mi Min Alt 713
ILS 111.3 I-DLX Apch Brg 186 109.3 I-DIA Apch Brg 006°

WASHINGTON NATIONAL *IFR* 3 S (DCA VOR on fld)
15 H69/18-36 (3) (S-100, T-200, TT-400) BL4, 6, 8A, 10, 11, 15 S5 F5, JP1 U2 VASI: Rwy 15
RVV: Rnwys 18/15 RVR: Rnwy 36
FSS: WASHINGTON on Fld
REMARKS: No acft over 120,000 lbs w/o prior apvl. Very limited parking.
TOWER 119.1[1] 122.5R
CLRNC DEL 127.7 GND CON 121.7
RADAR SERVICES:
APP CON 120.8[2] 134.1[3] 127.0 122.5R 118.3[1] 109.9T
3023.5R 278T
DEP CON 118.1[1] 126.55[2]
TFC INFO Ctc APP CON on 119.3 120.1
PAR Rnwy 36 Ceil 200 Vsby 1/2 mi Min Alt 215
ILS 1099 I-DCA Apch Brg 003°
VHF/DF available, contact tower
REMARKS: [1]West [2]East [3]Andrews Sector. IFF svc avbl. Circling. PAR avbl on 15 min notice durg VFR wx conditions.
VOT: 108.2

FLORIDA

DAYTONA BEACH MUNI *IFR* 3 SW (156° 7.4 NM from DAB VOR)
34 H57/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5
F4, JP1 U2 FSS: ORLANDO (LC255-4767)
TOWER 120.7 126.2 122.5R 353T GND CON 121.9
RADAR SERVICES:
APP CON 123.9 122.5R 112.5T 109.7T
ILS 109.7 I-DAB Apch Brg 065°

FT LAUDERDALE-HOLLYWOOD INTL *IFR* 3 SW (FLL VOR fld) AOE
10 H74/9-27 (3) BL4 S5 F5, JP1 U2
FSS: MIAMI (DL)
REMARKS: Rnwy 9-27 thresholds displaced 600 ft both ends Chm-birds.
FORT LAUDERDALE TOWER 119.3 122.5R 111.4T
3023.5R 212T
FORT LAUDERDALE GND CON 121.7
RADAR SERVICES: (BCN)
MIAMI APP CON 123.9 119.7
MIAMI DEP CON 123.9 119.7

HOLLYWOOD

NORTH PERRY 5 W (224° 6.2 NM from FLL VOR)
9 H31/4-22 (4) BL4 S5 F4
FSS: MIAMI (LC 554-6[illegible]
TOWER[1] 121.3 122.4R
REMARKS: [1]Oper 1200-0200Z daily. Oper by county.

JACKSONVILLE

IMESON *IFR* 5 N (250° 3.5 NM from JAX VOR)
52 H79/5-23 (3) (S-105, T-137, TT-205) BL4, 6 S5
F5, JP4 U2 RVV: Rnwy 5 FSS: JACKSONVILLE or [illegible]
REMARKS: Caution on ILS apchs. Brightly lighted bridge 1 1/4 mi SW of apch end of rnwy 5 could give false impress of being a rnwy dur poor vis conditions. Rnwy 18-36 oper dalgt VFR operns. Rnwy 5 clsd to indgs, first 1000' clsd for tkof. Clsd dalgt hrs on intermittent basis.
JACKSONVILLE TOWER 118.3 126.2 122.5R 110.3T
JACKSONVILLE GND CON 121.9
RADAR SERVICES:
JACKSONVILLE APP CON 119.0 126.2 122.5R [illegible]
114.5T 110.3T
JACKSONVILLE DEP CON 124.9 126.2
TFC INFO Ctc APP CON on 119.0 25 mi out
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 453
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 553
ILS 110.3 I-JAX Apch Brg 045°
VHF/DF available, contact tower
REMARKS: VOT: 111.0

KEY WEST INTL *IFR* 2 E (137° 1.7 NM from EYW VOR) [illegible]
4 H48/9-27 (1) (S-30, T-40, TT-) BL4 S3 F4
FSS: KEY WEST or [illegible]
REMARKS: Fee for commercial and hired acft only. Pilots rnwy 9
TOWER[1] 119.5 122.5R
GND CON 121.9 VFR ADV Ctc Key West rdo 0300-[illegible]
NAVY KEY WEST APP CON 118.7 126.2 122.5R
REMARKS: [1]Oper 1100-0300Z

LAKE CITY MUNI 3 E (182° 19NM from TAY VOR)
202 H68/10-28 (5) BL4 F4 U1
FSS: GAINESV[illegible]
TOWER [1]126.2 122.8R
REMARKS: [1]Oper 1300-2130 Mon-Fri; Controls Military Traffic Only

.BOURNE
OHN F KENNEDY MEML *IFR* 2 NW (MLB VOR on Fld)
32 H112/9-27 (3) (S-30, T-40, TT) BL4 S5 F4, JP5
FSS: MELBOURNE on Fld
REMARKS: 9603' rnwy 9-27 available ngts, displaced threshold rnwy 27 1589' W
MELBOURNE TOWER [1]118.2 122.7R
RADAR SERVICES:
PATRICK APP CONN 118.4
PATRICK DEP CON 118.4
REMARKS: [1]Oper 1130-0230Z daily

W INTL *IFR* 8 NW (138° 13.2NM from MIA VOR AOE
9 H105 9L-27R (4) (S-200, T-200 TT-400) BL4, 6, 8A, 10
S5 F5, JP1, 5 VASI: Rnwy 12 RVV: Rnwys 9L, 27L
FSS: MIAMI on Fld
REMARKS: Fee. All foreign cargo arr and pvt acft carrying 10 passengers or less incl crew clear at new General Aviation Center lctd NW area of arpt from 0900-2100 E daily except Sun and holidays. All arr foreign and pvt actf clear at concourse 4, Intl terminal other hours. Prkg avbl on former military ramp.
TOWER 118.3 126.2 122.4R 278T CLRNC DEL 127.5
GND CON 121.8
RADAR SERVICES: (BCN)
APP CONN 118.1[1] 123.7[2] 122.4R
DEP CON 123.9 119.7
TFC INFO Ctc Twr 20 mi out or remain above 2500'.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409
ILS 110.3 I-MFA Apch Brg 086° 109.5 I-MIA Apch Brg 266°
VHF/DF available, contact Tower.
REMARKS: [1]090°-269° [2]270°-089°, 1400' MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. IFF/SIF svc avbl.

W
'A LOCKA *IFR* 10 NW (107° 9.8 NM from MIA VOR)
9 H80/9L-27R (5) BL4, 6 S5 F5, JP1
FSS: MIAMI (LC 634-7687)
REMARKS: Displaced thresholds all rnwys except 9L-27R. Simult opp dir operns conducted from parallel rnwys 9L-27R & 9R-27L VFR cond.
TOWER [1]120.7 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
MIAMI APP CON 123.7 118.1
MIAMI DEP CON 123.9 119.7
REMARKS: [1]Oper 1100-0300Z.

W
MIAMI 8 W (159° 14 NM from MIA VOR)
10 H38/14-32 (3) BL4 S5 F4 FSS: MIAMI (LC 634-7687)
REMARKS: Rgt tfc rnwys 9, 14.
TOWER 121.1 122.6R GND CON 121.7
RADAR SERVICES:
MIAMI DEP CON 123.9[1] 119.7[2]
REMARKS: [1]270°-089° [2]090°-269°.

ANDO
'RLANDO *IFR* 3 E (ORL VOR on Fld)
113 H60/7-25 (2) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 RVV: Rnwy 7 FSS: ORLANDO on Fld
REMARKS: Due nonvisibility, twr unable to determine if all areas of arpt are clear. NW-SE rnwy NW lndg 5178' avbl, SE 5010' avbl.
TOWER 118.7 126.2 122.5R 112.2T 109.9T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
ORLANDO APP CON 119.4 124.8 122.5R 112.2T 109.9T ORLANDO DEP CON 121.1
TFC INFO Ctc APP CONN on 124.8 25 mi out.
ASR Rnwys 7,13 Ceil 500 vsby 1 mi Min Alt 613. Rnwys 25, 31 Ceil 400 vsby 1 mi Min Alt 513
ILS 109.9 I-ORL Apch Brg 066°

PENSACOLA MUNI *IFR* 3 NE (343° 1.8 NM from PNS RBN
118 H50/16-34 (2) (S-60, T-80, TT) BL4, 6, 8 S3
F4, JP1 U2 RVV: Rnwy 16 FSS: PENSACOLA on Fld
REMARKS: Rnwy 7-25 under const.
TOWER 119.9 126.2 122.5R 109.5T 326T
GND CON 121.9
RADAR SERVICES:
APP CON 123.9[1] 134.1 122.7R 120.1 119.0[2]
DEP CON 119.0[2] 134.1 123.9[1]
TFC INFO Ctc APP CON on 119.0 for acft Eastbound or arriving fm the East or on 123.9 for acft Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163°
REMARKS: [1]West [2]East

ST AUGUSTINE
FAIRCHILD - ST AUGUSTINE 3 N (118° 32.8 NM from NZC VOR)
10 H50/13-31 (2) S5 F5
FSS: JACKSONVILLE (LC EL5 3601)
REMARKS: Rnwy 2-20 ciso for Acft over 12,500 lbs when Twr not in opern.
TOWER [1]126.2 123.1T 122.5R 118.3R
REMARKS: [1]Oper 1230-2115Z Mon-Fri

ST PETERSBURG-CLEARWATER INTL *IFR* 8 N (PIE VOR on Fld)
10 H80/17-35 (3) (S-60, T-120, TT-240) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 17 FSS: TAMPA (DL)
REMARKS: Rnwy 13-31 perm clsd avlb for taxing only. Seagulls, caution. Rnwy 4-22 clsd to night ops UFN.
TOWER 118.3 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T TAMPA DEP CON 126.5
ILS 109.1 I-PIE Apch Brg 170°

SARASOTA - BRADENTON *IFR* 3 N (SRQ VOR on FLD
24 H50/13-31 (3) (S-30, T-40, TT) BL4, 6 S5
F4, JP5 U2 FSS: TAMPA (DL)
REMARKS: Rnwy 9-27 and Txwy Btn Rnwys 31 & 32 clsd to acft in excess 12,500 lbs.
TOWER [1]120.1 122.5R 272T GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T TAMPA DEP CON 126.5
REMARKS: [1]Oper 1100-0300Z.

TALLAHASSEE MUNI *IFR* 4 SW (140° 2.4 NM from TLH RBN
81 H61/18-36 (2) BL4, 6, 8 S5 F4, JP4 U2
RVV: Rnwy 36 FSS: TALLAHASSEE on Fld
REMARKS: Txwys and parking areas S and E of twr not vis to twr.

TOWER 118.7 126.2 122.5R 117.5T 110.3T
CLRNC DEL 121.9 GND CON 121.9
APP CON 118.1 122.5R 117.5T 110.3T
DEP CON 118.1
ILS 110.3 I-TLH Apch Brg 358°
REMARKS: VOT: 111.0

TAMPA INTL *IFR* 3 W (063° 8.7 NM from PIE VOR AOE
27 H 83/181-36R (3) (S-80 T-120, TT-270) BL4, 6, 8A, 14
S3 F5, JP1, 4, 5 RVR: Rnwy 18L FSS: TAMPA on Fld
REMARKS: Rnwy 14-32 clsd to all acft for both lndgs and tkofs. Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 Lbs Gwt. Rnwy 36R open to all acft when wind requires a north operation and 1000' or less ceiling and 1.5 mi vsby. Rnwys 18L and 36L clsd to tkofs acft over 12,500 lbs Gwt xcpt rnwy 18L open to all acft when RVR limits require use of rnwy 18L for departures.
TOWER 119.9 126.2 122.5R 110.3T 278T
GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T
DEP CON 126.5
ILS 110.3 I-TPA Apch Brg 181°
REMARKS: VOT: 111.0

WEST PALM BEACH
PALM BEACH INTL *IFR* 3 W (095° 2.8 NM from PBI VOR AOE
19 H80/9-27 (2) (S-95, T-200, TT-350) BL4, 6, 8A S5
F5, JP4 RVV: Rnwy 9 FSS: VERO BEACH (LC 832-5697)
REMARKS: Rgt tfc rnwys 9 and 13. Caution, flocks of birds on and in vic of arpt. Construction ufn.
TOWER 119.1 126.2 122.7R 115.5T 109.3T 356T 278T
GND CON 121.9
APP CON 118.0 122.7R 115.5T 109.3T 356T
ILS 109.3 I-PBI Apch Brg 093°
REMARKS: VOT: 109.0

GEORGIA

ATLANTA MUNI *IFR* 3 E (016° 8.1 NM from ATL VOR)
1024 H78/9-27 (3) (S-120, T-, TT) BL4, 6, 8 S4
F5, JP1 U2 VASI: Rwy 27 RVR: Rwy 9
FSS: ATLANTA (LC 344-1551)
TOWER 119.1 122.7R CLRNC DEL 121.6
GND CON 121.9
RADAR SERVICES: (BCN)
APP CONN 123.7[1] 119.8[1] 119.3[2] 118.1[2] 109.9T 109.3T
DEP CON 125.7
TFC INFO Inbnd acft ctc app con 25 NM out.
PAR Rwy 9 ceiling 200 vsby ½ mi min alt 1224.
ASR Rwys 3, 27, 33 ceiling 400 vsby 1 mi min alt 1424. Rwys 9, 15 ceiling 500 vsby 1 mi min alt 1524.
ILS 109.9 I-ATL Apch brng 089° 109.3 I-AZA Apch brng 329° BC unusable
REMARKS: [1]270° - 089° [2]090° - 269°. IFF SVC avbl.

ATLANTA
DEKALB-PEACHTREE *IFR* 8 NE (241° 9.7 NM from OCR VOR
1002 H40/16-34 (3) (Max 30) BL4, 6, 8 S5 F4, JP4 U2
FSS: ATLANTA (LC 344-1551)
PEACHTREE TOWER [1]121.3 122.5R
PEACHTREE GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
REMARKS [1]Oper 1200-0400Z.

ATLANTA
FULTON COUNTY *IFR* 6 W (FTY VOR on Fld)
834 H52/8-26 (2) (Max 22) BL4 S5 F5, JP4
FSS: ATLANTA on Fld
TOWER 118.5 122.5R 245T GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
VHF/DF available, contact tower.

AUGUSTA
BUSH FIELD *IFR* 6 S (128° 6.4 NM from AGS RBN)
145 H80/17-35 (2) (S-90, T-120, TT) BL4, 6, 8 S5
FT, JP1, 4 U2 FSS: AUGUSTA on Fld
AUGUSTA TOWER 118.7 126.2 122.5R 110.5T
AUGUSTA GND CON 121.9
AUGUSTA APP CON 125.4 122.5R 113.9T 110.5T 385T
ILS 110.5 I-AGS Apch brng 348° BC unusable

COLUMBUS
MUSCOGEE COUNTY *IFR* 4 NE (147° 6.8 NM from CSG VOR
397 H50/5-23 (2) (S-60, T-80, TT) BL4, 6 S5
F5, JP5 U2 FSS: ATLANTA (LC 322-6433
REMARKS: Rnwy 12 clsd to ngt lndgs. Rnwy 30 clsd to ngt tkofs.
COLUMBUS TOWER 120.1 122.5R
COLUMBUS GND CON 121.9
COLUMBUS APP CON 125.3 122.5R 110.3T 335T
ILS 110.3 I-CSG Apch brng 052° BC unusable

MACON MUNI *IFR* 9 S (MCN VOR on Fld)
354 H50/5-23 (2) (S-60, T-, TT) BL4, 6, 8 S3
F5, JP1 U2 FSS: MACON on Fld
TOWER 118.3 122.5R 109.5T GND CON 121.7
RADAR SERVICES: (BCN)
APP CONN 119.6 134.1 124.2 122.7R 114.2T 108.5T
DEP CON 124.8
ASR Rwys 5, 13, 23 ceiling 500 vsby 1 mi min alt 854.
ILS 109.5 I-MCN Apch brng 047°
VHF/DF available, contact tower.

SAVANNAH
TRAVIS FIELD *IFR* 7 NW (246° 4.3 NM from SAV VOR
50 H90/9-27 (3) (S36, T62, TT106) BL4, 6, 8 S5
F4, JP5 RVV: Rwy 9 FSS: SAVANNAH on Fld
REMARKS: Rnwy 27 threshold displaced 400'. Fuel avbl 7AM-10PM unless prior req. Rnwy 23 restricted to 3500 lb large acft.
SAVANNAH TOWER 119.1 126.2 122.5R 110.1T
SAVANNAH GND CON 121.9
RADAR SERVICES: (BCN)
SAVANNAH APP CON 125.3 126.2 122.7R 121.1 112.7T 3023.5R
SAVANNAH DEP CON 125.7
ILS 109.9 I-SAV Apch brng 092°
REMARKS: VOT: 111.0

IDAHO

OISE AIR TERMINAL *IFR* 3 S (BOI VOR on Fld)
2858 H74 IDL-28R (2) (S100, T-185, TT-300) BL4, 6, 8
S5 F5, JP1, 4 U2 RVV: Rnwy 10L
FSS: BOISE on Fld
REMARKS: Rnwys 28L-10R and 28L-10R subject to closure during periods of const. Rgt tfc rnwys 10R, 28R
TOWER 118.1 126.2 122.5R GND CON 121.7
APP CON 120.5 126.2 122.5R 118.1 113.3T 109.9T
ILS 109.9 I-BOI Apch brng 096°

'AHO FALLS
FANNING FIELD *IFR* 2 NW (IDA VOR on Fld)
4739 H75/2-20 (2) (S-30, T-90, TT-150) BL4, 6 S5
F4, JP5 FSS: IDAHO FALLS on Fld
REMARKS: Rnwy 20 threshold displaced 930 ft SW. 6600 ft avbl lndg rnwy 20. Rnwy 16 threshold displaced 655ft S. 4495 ft avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
TOWER [1]118.5 122.5R 206T GND CON 121.7
REMARKS: [1]Oper 1300-0500Z

)CATELLO MUNI *IFR* 7 NW 032° 3.1 NM from PIH VOR
4448 H82/3-21 (3) (S30, T80, TT130) BL4, 6 S5 F4 U2
RVV: Rwy 21 FSS: POCATELLO on Fld
REMARKS: Ctn-birds due non-vsby some areas of fld ctc twr for instr.
TOWER 119.1 122.5R 278T GND CON 121.9
ILS 110.3 I-PIH Apch brng 207°

ILLINOIS

·AMPAIGN
JNIVERSITY OF ILLINOIS-WILLARD *IFR* 4 SSW (CMI VOR on field
753 H53/13-31 (3) (S75, T100, TT) BL4 S5 F4, JP1
U2 FSS: CHAMPAIGN on Fld
REMARKS: use rnwys - turf usable by permission. CTN-student training flts and lcl area acft oper in rgt tfc ptn rnwy 22 only. Four lgtd steel twrs and one antenna pole extending 30 ft agl (775 ft msl) 930 ft SE of rnwy 22. Glider operns Sat and Sun. Rgt tfc rnwy 22 VFR wea. Due non-vsby some areas of fld ctc twr for instr.
CHAMPAIGN TOWER 120.5 122.5R 3023.5Rx 233T
CHAMPAIGN GND CON 121.9
CHAMPAIGN APP CON 119.8 122.5R 120.5 110.0T 233T
ILS 109.1 I-CMI Apch brng 313°

ICAGO
\ERRILL C MEIGS FIELD 1 E (117° 15.1 NM from ORD VOR
592 H39/18-36 (1) (MAX 15) BL6 F4 U2
FSS: JOLIET (DL)
REMARKS: U.S. Customs lndgs rts arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1, 500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear afct. (3) 25 knots or more to all acft. Fld clsd daily to all operns btn hrs 2200 and 0600 lcl time due, no safety or svcs facs; no lgtg excpt obstn lgts dur this period. Rgt tfc N.
MEIGS TOWER [1]121.3 127.8 122.5R
GND CON MEIGS GND CON 121.9
VFR ADV Ctc twr on 127.8 at least 10 mi out.
REMARKS: [1]Oper 1200-0400Z.

CHICAGO-MIDWAY *IFR* 9 SW (132° 5 NM from MD LOM) AOE
619 H65/13R-31L (6) (S-130, T-200, TT-400) BL2, 4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 13R FSS: JOLIET (DL)
REMARKS: Due to non-vsby some areas of fld ctc twr for instr. Customs svc avbl 0800-1700 cst Mon-Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt. Special air tfc ptn alts: whenever wea or applicable dis fm clouds criteria is not a factor, pilots of turbine powered acft shall comply with following: Dep acft climb to 2000 ft abo the sfc as rapidly as practicable. Arr acft maint on alt of 2000 ft abo the sfc as long as practicable. Acft apch to lnd on a rnwy being svcd by an ILS shall fly at an alt at or abo the glide slope btn the OM and MM.
MIDWAY TOWER 118.7 126.2 123.7 122.7R 109.9T 109.5T MIDWAY GND CON 121.7
RADAR SERVICES:
CHICAGO APP CON 119.5 126.2 124.7 124.2 122.6R 118.4 111.6T 110.1T 109.7T
CHICAGO DEP CON[1] 124.2 119.2
PAR Rnwy 13R Ceiling 300 Vsby ¾ mi Min Alt 919
ASR Rnwys 4L, 4R, 9R, 13L, 13R, 18R, 27L, 31L, 31R, 36L Ceiling 500 Vsby 1½ mi Min Alt 1119. Rnwys 22L, 22R Ceiling 600 Vsby 1½ mi Min Alt 1219
ILS 109.9 I-MDW Apch Brng 132° BC unusable 109.5 I-MXT 312°
VHF/DF Available, contact Tower.
REMARKS: [1] Midway tower provides RADAR coverage to departure acft in the immediate area of Midway. PAR unusable frm MM to touchdown.
VOT: 111.0

CHICAGO-O'HARE INTL *IFR* 14 NW (ORD VOR on field)
667 H116/14R-32L (5) (S-120, T-200, TT-375) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 RVV: Rnwys 14L, 32L, 32R 27, 9 4
RVR: Rnwy 14R FSS: JOLIET (DL)
REMARKS: Due to non-vsby some areas of fld ctc twr for instr. RVR rnwy 14 will be tsmtd in wea observations, whenever prevailing vsby less tha 1 5/8 mi and/or rvr is 6000 ft or less, rvr 2600 ft. Special air tfc ptn alt: dep acft clb to 2000 ft abo sfc. Lndg acft maintain an alt of 2000 ft abo sfc prior to lndg whenever wea is not a factor. All civ acft must register with Butler Aviation upon lndg. Rnwy 36 used for tkof to N only. Rnwy 18 used for lndg only. Transmissometer svc rnwy 9 also svc rnwy 4 for vsby info, when wind is less than 20 kts lndg rnwy 18 rest to propeller acft twin-eng or smaller.
O'HARE TOWER 118.1 126.2 122.6R 120.7 111.6T 110.1T 109.7T
CLRNC DEL 121.8 O'HARE GND CON 121.9
RADAR SERVICES: (BCN)
CHICAGO APP CON 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 111.6T 110.1T 109.7T
CHICAGO DEP CON 125.4 125.0 124.2
TFC INFO all inbnd acft ctc Chicago APP CON
PAR Rnwys 14R, 27, 32L Ceiling 200 Vsby ½ mi Min Alt 867. Rnwys 4, 14L, 22, 32R Ceiling 300 Vsby ¾ mi Min Alt 967
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceiling 400 Vsby 1 mi Min Alt 1067
ILS 109.7 I-ORD Apch Brng 138°(14R) 110.1 I-OHA Apch Brng 138°(14L) 110.5 Apch Brng 268° 109.1 I-RVG Apch Brng 318°
VHF/DF Available, contact Tower

REMARKS:[1] 180°-359°. [2]360°-179°. On apch to rnwy 22 do not descend below 1200' MSL til Radar advises passing twr 926' MSL 4.2 mi fm end of rnwy. IFF svc avbl.
VOT: 112.0

MOLINE
QUAD CITY *IFR* 3 S (086° 4.4 NM from ML LOM)
590 H55/9-27 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F5, JP4
U2 RVV: Rnwy 9 FSS: MOLINE on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
MOLINE TOWER 118.5[1] 122.5R 110.3T
MOLINE GND CON 121.9
VFR ADV Ctc APP CON on 119.4
MOLINE APP CON 119.4 114.4T 111.2T 110.3T 224T
ILS 110.3 I-MLI Apch Brng 086°
REMARKS: [1]Prim civil local ctl.

PEORIA
GREATER PEORIA *IFR* 4 W (095° 4 NM from PIA VOR)
659 H70/12-30 (4) (S-60, T-80, TT-) BL4, 6, 8 S5 F5, JP1
U2 FSS: JOLIET on Fld
REMARKS: Rnwy 18 clsd air carrier ngt lndgs. Due non-vsby some areas of fld ctc twr for instr.
PEORIA TOWER 119.1 125.8 122.5R
PEORIA GND CON 121.9 VFR ADV Ctc APP CON
PEORIA APP CON 125.8 122.5R 115.2T 109.9T 3023.5R
ILS 109.9 I-PIA Apch Brng 303°

ROCKFORD
GREATER ROCKFORD *IFR* 4 S (114° 6 NM from RFD VOR)
735 H60/18-36 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F4, JP1
RVV: Rnwy 36 FSS: ROCKFORD on Fld
ROCKFORD TOWER 118.3 122.5R 109.3T 362T
ROCKFORD GND CON 121.9
VFR ADV Ctc APP CON on 124.9
ROCKFORD APP CON 124.9 118.3 122.5R
ILS 109.3 I-RFD Apch Brng 002°

SPRINGFIELD
CAPITAL *IFR* 3 NW (216° 3.2 NM from CAP VOR)
593 H70/4-22 (3) (S-75, T-150, TT-) BL4, 6, 8 S5 F4, JP4
U2 RVV: Rnwy 4 FSS: VANDALIA (DL)
REMARKS: Ctn - passing vic of arpt. Jet 360° overhead apch ptn to rnwy 4 and 22 are flown to 2100 ft msl. Moderate to occasionally hvy jet tfc operg in trml area to 20,000 ft and abo during dalgt and evening hrs. Numerous jet penetration apchs fm 20,000 ft to rnwys 4-22 dsndg within 25 mi of fld in an area varying fm SW clockwise to NE of arpt.
TOWER 121.3 122.5R 239T
GND CON 121.9
VFR ADV Ctc APP CON on 118.6 aprx 25 NMout
SPRINGFIELD APP CON 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I-SPI Apch Brng 038°

WEST CHICAGO
DUPAGE COUNTY *IFR* 3 NW (069° 4.3 NM from DPA VOR)
758 H40/10-28 (3) (Max-15) BL4, 9° S5 F4 U2
FSS: JOLIET (DL)
REMARKS: *Non-standard, 1000' down cntr-line. Rnwy 5-23 clsd to all twin eng acft in winds blo 15 kts. Non std sequence flashers 1000 ft down centerline apch end rnwy 10. All txwys lgtd until 10 PM.
TOWER 120.9 122.5R 342T
GND CON 121.7
REMARKS: [1] TWR oper 1200-0400Z.

INDIANA

EVANSVILLE
DRESS MEMORIAL *IFR* 3 N (057° 12.4 NM from EVV VOR)
389 H60/3-21 (3) (S-70, T-90, TT-) BL4, 6 S5 F5, JP4
FSS: EVANSVILLE on Fld
REMARKS: P-Line apch rnwy 31. Due non-vsby some areas of fld, ctc twr for instructions. Acft not vis on final apch to rnwy 9 within 1500' apch end at alt of 100' AGL or below.
EVANSVILLE TOWER 118.7 122.5R
EVANSVILLE GND CON 121.9
EVANSVILLE APP CON 119.4 122.5R 118.7 113.3T 109.9T
ILS 109.9 I-EVV Apch Brng 215° BC unusable

FT. WAYNE
BAER FIELD *IFR* 6 SSW (FWA VOR on field)
801 H80/4-22 (3) (S-90, T-120, TT-) BL4, 6, 8 S5 F5, JP4
U2 RVV: Rnwy 31 FSS: FORT WAYNE on Fld
REMARKS: P-Line apch rnwy 31. Due non-vsby some areas of fld, ctc twr for instructions. Intervals; jet traffic making 360° overhead apchs to NE/SW rnwy. Jet trf patn alt 2500' MSL. Practice flame-out apchs are being made to rnwy 22 or 4 when ceiling is 6000' or above and vsby is 5 mi.
FORT WAYNE TOWER 119.1 126.2 122.5R 278T
FORT WAYNE GND CON 121.9
RADAR SERVICES: (BCN)
FORT WAYNE APP CON 125.5 127.2 126.2 122.5R 113.9T 109.9T 251T FORT WAYNE DEP CON [illegible]
TFC INFO Inbnd VHF equipped acft ctc APP CON on 125.5 at least 15 NM out.
ASR Rnwys 27,31 Ceiling 400 Vsby 1 mi Min Alt 1200
Rnwy 22 Ceiling 500 Vsby 1 mi Min Alt 1301.
ILS 109.9 I-FWA Apch Brng 315°
REMARKS: IFF/SIF svc avbl. Do not descend below 1500' MSL til radar advised passing fix 3 miles fm end of rnwy 22 due to 1155' MSL twr 3.8 miles NE.
VOT: 111.0

INDIANAPOLIS MUNI (Weir Cook) 7 SW (142° 6.1 NM from IND VOR)
797 H76/13-31 (2) (S-90, T-135, TT-300) BL6, 8A, 10 S5 F4, JP1, 4 U2 VASI: Rnwy 22 RVR: Rnwy 4
FSS: INDIANAPOLIS on Fld
REMARKS: Fee multi-eng commercial acft. Due non-vsby some areas of field, ctc twr instr. 700' extn NE end rnwy 4-22 clsd. Threshold to usable 7300' rnwy 22 mrkd by threshold lgts and red flags on either side of rnwy and two white bars running across rnwy.
TOWER 120.9 126.2 122.5R 121.3 116.3T 109.3T
CLRNC DEL 125.7 GND CON [illegible]
RADAR SERVICES:
APP CON 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T 109.3T DEP CON 121.1 121.3
TFC INFO Ctc APP CON on 119.3 118.5 or 118.1
PAR Rnwy 4 Ceiling 200 Vsby ½ mi Min Alt 957
ASR Rnwys 4, 13, 22, 33 Ceiling 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I-IND Apch Brng 044° 110.5 I-COA Apch Brng 313°
VHF/DF available, contact Tower.
REMARKS: [1]220°-044° [2]045°-219°
VOT: 109.0

JNCIE
DELAWARE COUNTY 3 N (065° 14.3 NM from AID RBN)
937 H51-14-32 (2) (S-70, T-90, TT-150) BL4 S5 F4 U2
FSS: INDIANAPOLIS (DL)
REMARKS: Unlgtd voltage twr line in NW apch 3480' of end rnwy 14.
MUNCIE TOWER[1] 120.1 122.5R
MUNCIE GND CON 121.9
RADAR SERVICES:
INDIANAPOLIS CENTER APP CON 124.8
INDIANAPOLIS CENTER DEP CON 124.8
REMARKS: [1]Oper 1200-0400Z.

UTH BEND
ST JOSEPH COUNTY *IFR* 3 NW (180° 3.7 NM from SBN VOR)
778 H60/9-27 (4) (S-110, T-145, TT-) BL4, 6, 8 S-4 F5 U2 RVV: Rnwy 27 FSS: SOUTH BEND on Fld
REMARKS: P-lines NE, S. Due non-vsby some areas of fld, ctc twr for instructions. Const work W end rnwy 9-27 and all txwys. Men, eqpmt on all rnwys and txwys. Open trenches at edges of txwys. Paving machine 18' high at end of rnwy 9 dalgt hrs only, all eqpmt mrkd with flags and red lgts.
SOUTH BEND TOWER 118.9 122.5R 115.4T 109.3T
SOUTH BEND GND CON 121.9
SOUTH BEND APP CON 121.0 122.5R 115.4T 109.3T
ILS 109.3 I-SBN Apch Brng 269°

RRE HAUTE
HULMAN FIELD *IFR* 5 E (229° 3 NM from HUF VOR)
585 H90/S-23 (3) (S-80, T-105, TT-) BL 4, 6 S3 F4 U2
FSS: TERRE HAUTE on Fld
REMARKS: 1254' overrun NE end rnwy 5. No service or maintenance avbl 0330-1200Z unless prior notice. Extremely lmtd parking. Jet tfc heavy Sat and Sun outbound and inbound. Rnwy 18-36 clsd to acft over 25,000 lbs.
TOWER 118.3 126.2 122.5R
GND CON 121.9 VFR ADV Ctc APP CON
APP CON 123.8 126.2 122.5R 118.3
ILS 109.7 I-HUF Apch Brng 045°

IOWA

DAR RAPIDS MUNI *IFR* 5 SSW (088° 2.8 NM from CID VOR)
863 H70/8-26 (2) (S-100, T-135, TT-) BL 4, 6, 8 S-5 F5, TF-1 U2
FSS: CEDAR RAPIDS on Fld
REMARKS: Eastern N/S txwy 1500 x 75' and sod areas avbl as rnwy dur strong N/S winds. Bcn shaded on hdgs 310° - 320° toward fld.
TOWER 118.7 122.5R 117.6T 109.3T 278T
GND CON 121.9 VFR ADV Ctc APP CON on 119.9
APP CON 119.9 122.5R 118.7 117.6T 109.3T 278T
ILS 109.3 I-CID Apch Brng 085° BC unusable.

MOINES MUNI *IFR* 3 SW (349° 5.4 NM from DSM VOR)
957 H90/12-30 (3) (S-90, T-135, TT-300) BL4, 6, 8 S-5 F5, JP4 U2 RVV: Rnwy 30 FSS: DES MOINES on Fld
REMARKS: Rnwy 17-35 restricted to acft not over 25,000 lbs.
TOWER 118.3 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 124.9 122.5R 119.3 114.1T 110.3T 212T
DEP CON 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi Min Alt 1357
ILS 110.3 IDSM Apch Brng 305° BC unusable

REMARKS: IFF SIF svc avbl.

SIOUX CITY MUNI *IFR* 6 S (312° 3.6 NM from SUX VOR)
1097 H90 13-31 (3) (Max 2.25) BL4, 6, 8 S-5 F4, JP-1 U2
RVV: Rnwy 31 FSS: SIOUX CITY on Fld
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 118.7 126.2 124.6 122.5R 116.5T 109.3T 335T
ILS 109.3 I-SUX Apch Brng 307°
VHF/DF available, contact Tower.
REMARKS: IFF SIF svc avbl.

WATERLOO MUNI *IFR* 4 NW (ALO VOR on fld)
870 H54, 12-30 (3) (S-80, T-105, TT-) BL4, 6, 8 S-5 F4, JP1 U2 RVV: Rnwy 12 FSS: WATERLOO on Fld
TOWER 118.1 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.8
APP CON 125.8 122.5R 109.9T 108.2T
RADAR SERVICES:
ILS 109.9 I-ALO Apch Brng 123°

KANSAS

HUTCHINSON MUNI *IFR* 3 E (032° 5 NM from HUT VOR)
1542 H70/13-31 (3) (S-40, T-55, TT-) BL4, 6,8 S-5 F4
FSS: HUTCHINSON on Fld
REMARKS: Ctn - birds vic arpt. Rnwy and txwy resurfacing in progress. Certain rnwys and txwys may be clsd as const progresses.
TOWER 118.5 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.5
APP CON 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brng 128°

KANSAS CITY
FAIRFAX MUNI *IFR* 3 NE (177° 7.5 NM from MKC VOR)
746 H73/17-35 (4) (S- , T-75, TT-170) BL6 S-5 F-5, JP-1 U2 FSS: KANSAS CITY (LC GRI-4572)
REMARKS: Tfc ptn alt for acft under 12,500 lbs GWT is 600 ft AGL, vsby N and NW greatly reduced.
TOWER 119.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
KANSAS CITY APP CON 126.2 122.7R 121.1[1] 119.5[2] 112.6T 109.9T KANSAS CITY DEP CON 118.1
REMARKS: [1]W Sector [2]E Sector

TOPEKA
PHILIP BILLARD MUNI *IFR* 3 NE (210° 4.9 NM from TOP VOR)
880 H51/13-31 (3) (S-60, T-80, TT-) BL4, 6 S-5 F-5 U2
FSS: TOPEKA on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
TOPEKA TOWER 118.7 126.2 122.5R
TOPEKA GND CON 121.9
RADAR SERVICES: (BCN)
OLATHE APP CON 120.5 122.5R
ILS 109.5 I-TOP Apch Brng 125°

WICHITA
BEECH 5 E (273° 3.5 NM from ICT VOR)
1387 H50/18-36 (3) F4 FSS: WICHITA (DL)
REMARKS: Both apch N-S rnwy rest by polelines.
TOWER 119.9 126.2 122.5R 3023.5R GND CON 121.9

RADAR SERVICES:
WICHITA APP CON 120.1 134.1 125.7 122.7R 332T
WICHITA DEP CON 124.5
ASR [1]Rnwy 18 Ceiling 700' Vsby day 1 mi Min Alt 2087
REMARKS: [1]NA for over 2 eng acft.

WICHITA MUNI 5 SW (161° 4.3 NM from ICT VOR)
1332 H73/1-19 (2) BL6, 8 S5 F5, JP1 U2
RVV: Rnwy 01 FSS: WICHITA on Fld
REMARKS: Clsd acft over 120,000 lbs except prior pmsn. Acft carrying hazardous or explosive cargo prohibited. Due non-vsby some areas of fld ctc twr for instr. Min alt of 4000 ft or higher for VFR enroute flts. Ctn-birds vic arpt.
TOWER 119.5 122.5R 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
WICHITA APP CON 120.1 134.1 125.7 122.7R 113.8T 332T
WICHITA DEP CON 124.5 113.8T
ILS 110.3 I-ICT Apch Brg 010°

KENTUCKY

LEXINGTON
BLUE GRASS FIELD *IFR* 5 W (304° 7.3 NM from LEX VOR)
978 H55/4-22 (3) (S-35, T-45, TT-) BL4, 6, 8 S5 F5, JP-5 U2 RVV: Rnwy 4 FSS: LEXINGTON on Fld
REMARKS: Trans acft load gate No. 4, 15 min limit. Helos land SE end NW/SE txwy.
LEXINGTON TOWER 121.1 122.5R 117.0 110.1T
LEXINGTON GND CON 121.9
LEXINGTON APP CON 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brng 042°

LOUISVILLE
BOWMAN FIELD *IFR* 5 SE (330° 8.3 NM from LOU VOR)
549 H43/6-24 (3) (Max 30) BL4 S-5 F-4, JP-4 U2
FSS: LOUISVILLE on Fld
TOWER 119.5 126.2 122.5R GND CON 121.9
RADAR SERVICES:
STANDIFORD APP CON 124.5 126.2 120.5 120.3
STANDIFORD DEP CON 119.0

LOUISVILLE
STANDIFORD FIELD *IFR* 4 S (300° 8.4 NM from LOU VOR)
497 H78/1-19 (3) (S-60, T-90, TT-200) BL4, 6, 8 S-4 F5, JP1, 5 U2 RVV: Rnwy 29 RVR: Rnwy 1
FSS: LOUISVILLE (DL)
REMARKS: FEE
TOWER 120.3 126.2 122.7R
CLRNC DEL 121.3 GND CON 121.7
RADAR SERVICES:
APP CON 124.5 126.2 120.5 120.3 DEP CON 119.0
ASR Rnwy 1 Ceiling 400 Vsby 1 mi Min Alt 897. Rnwy 19 Ceiling 500 Vsby 1 mi Min Alt 997. Rnwys 6, 11, 24, 29 Ceiling 600 Vsby 1 mi Min Alt 1097
ILS 110.3 I-SDF Apch Brng 010° 109.1 I-LKS Apch Brng 290°
VHF/DF Available, contact Tower
REMARKS: On apch to rnwy 19 maintain at least 1400' MSL within 3 mi of rnwy.
VOT: 111.0

LOUISIANA

BATON ROUGE
RYAN *IFR* 4 N (065° 7.6 NM from BTR VOR)
70 H60/4-22 (3) (S-30, T-40, TT) BL4, 6 S5 F4, [illegible] U2 FSS: BATON ROUGE [illegible] Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
TOWER [1]118.3 122.5R GND CON 121.9
BATON ROUGE APP CON 119.7 122.5R 116.5T 110.3T
ILS 110.3 I-BTR Apch Brg 127°
REMARKS: [1]Intermittent severe interference reported within 5 mi radius.

LAFAYETTE MUNI *IFR* 2 SE (344° 3 NM from LFT VOR)
42 H51/1-19 (2) (S-30, T-40, TT) BL4, 8, 11 S5 F5, JP5 U2 RVV: rnwy 19 FSS: LAFAYETTE [illegible] Fld
REMARKS: Rnwy 10 threshold displaced 350 ft E. 3969 ft avbl lndg rnwy 10. REIL rnwy 1.
TOWER 118.5 122.5R CLRNC DEL 121.7
GND CON 121.7
APP CON 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193°

LAKE CHARLES MUNI *IFR* 3 S (252° 6.3 NM from LCH VOR)
16 H65/15-33 (1) (S-137, T-165, TT-350) BL4, 8A S5 F4, JP4 FSS: LAKE CHARLES [illegible] Fld
REMARKS: Rgt tfc SE. Rnwy 4-22 clsd ufn. Due non-vsby some areas of fld ctc twr for instr.
TOWER 120.7 122.5R GND CON 121.9
APP CON 119.3
ILS 109.1 I-LCH Apch brg 148°

MONROE
SELMAN FIELD *IFR* 3 E (035° 4.2 NM from MLU VOR)
79 H50/4-22 (3) (S-30, T-40, TT) BL4, 6, 8 S5 F4, JP4 U2 FSS: MONROE [illegible] Fld
MONROE TOWER 119.1 122.5R
MONROE GND CON 121.9
MONROE APP CON 119.1 122.5R
ILS 109.5 I-MLU Apch brg 038°

NEW ORLEANS-LAKEFRONT *IFR* 4 NE (079° 7.4 NM from MSY VOR)
10 H57/17-35 (4) BL4 S5 F5, JP1, 5 U2
FSS: NEW ORLEANS [illegible] Fld
REMARKS: Acft transporting any items listed in par 46 CAR prior pmsn rqrd to lnd. Due non-vsby some areas [illegible] ctc twr for instr. Pilings N of rnwy 17 apch in lake 10 [illegible] water, marked with red flags. Rnwy 35 being extnd 1176 ft on N end. Rnwy 35 threshold displaced 1226 ft N. 4528 ft avbl lndg rnwy 35. No ngt operns rnwy 8-26.
LAKEFRONT TOWER 119.5 126.2 122.5R
LAKEFRONT GND CON 121.7
RADAR SERVICES:
NEW ORLEANS APP CON 125.5 122.7R 118.1
NEW ORLEANS DEP CON 121.0

NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W (237° 8.4 NM from MSY VOR)
3 H92/10-28 (3) (S-120, T-180, TT-400) BL4, 6, 8A S5 F5, JP1, 5 U2 RVV: Rnwy 10 FSS: NEW ORLEANS [illegible]

REMARKS: Due non-vsby some areas of fld ctc twr for instr. Fee on gross indg wt. Const on fld-use ctn rnwy 10-28 clsd constr until apprx Jan 1965. U S Customs - Lndg rts arpt (7am-11pm Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba.
MOISANT TOWER 119.9 126.2 122.7R 3023.5RX 278T
MOISANT GND CON 121.9
RADAR SERVICES:
APP CON [1]125.5 122.7R 118.1 109.9T
DEP CON 120.4
TFC INFO Ctc APP CON on 118.1
ASR Rnwys 1, 5, 19 ceil 500 vsby 1 mi min alt 503.
Rnwys 10, 23, 28 ceil 400 vsby 1 mi min alt 403.
VHF DF available, contact tower.
REMARKS: [1]Acft transitioning New Orleans NAS MCC use New Orleans ARTCC freq 126.0 durg IFR above 5000; durg VFR use New Orleans APP CON freqs 118.1 & 122.7R.

EVEPORT
EATER SHREVEPORT *IFR* 4 SW (135° 3.6 NM from SH LOM)
257 H73-13-31 (2) (S-90, T-135, TT-300) BL4, 6, 8 F5
RVV: Rnwy 13 FSS: SHREVEPORT on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
SHREVEPORT TOWER 118.3 122.7R 201T
SHREVEPORT GND CONN 121.9
RADAR SERVICES: (BCN)
SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
SHREVEPORT DEP CON 119.9
TFC INFO Ctc APP CON on 118.5
ILS 110.3 I-SHV Apch brg 135°

REVEPORT DOWNTOWN *IFR* 2 N (DTN VOR on fld)
79 H45-14-32 (3) (S30, T-40, TT) BL4 S5 F5
FSS: SHREVEPORT (DL)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Apchs rnwys 14, 32, 18 and 36 restricted by trees-glide angle 0
TOWER 119.5 122.5R 272T GND CON 121.7
RADAR SERVICES: (BCN)
SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
SHREVEPORT DEP CON 119.9

MAINE

LAND MUNI *IFR* 2 W (112° 5.4 NM from PW LOM)
6 H50 11-29 (2) (S-117, T-142, TT-220) BL4, 6, 7, 10 S5
5, JP1 U2
ASI: Rnwy 29 FSS: PORTLAND on Fld
EMARKS: Caution, seagulls on and adjt to lndg areas. ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27' lctd at the end of rnwy and 800' rgt cntrline. Lesser penetrations lctd 250'-430' from end of rnwy and 720'-890' left cntrline 1890'-2180' from end of rnwy and 900-1090' left cntrline.
OWER 120.9 122.5R 109.9T GND CON 121.9
APP CON 120.9
-S 109.9 I-PWM Apch Brg 112° BC unusable

MARYLAND

BALTIMORE
FRIENDSHIP INTL *IFR* 8S (BAL VOR on FLD)
146 H94-10-28 (3) (S-240, T-500, TT-700) BL6, 8A, 10 S5
F5, JP1, 4, 5 U2 VASI: Rnwy 28 RVR: Rnwy 10
FSS: WASHINGTON (DL)
REMARKS: For Customs use gates A-14 and A-3 clsd 10 PM to 6:30 AM to practice approaches or landings by turbojet and turboprop due noise complaints.
TOWER 118.7 122.7R 109.7T GND CON 121.9
RADAR SERVICES:
BALTIMORE APP CON 121.1[1] 125.9[2]
BALTIMORE DEP CON 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646
ILS 109.7 I-BAL Apch brg 102°
VHF DF available, contact tower.
REMARKS: [1]090 - 269°. [2]270° - 089°.
VOT: 108.2

BALTIMORE
MARTIN 9 E (058° 14 NM from BAL VOR)
18 H81 14-32 (4) (S-50, T-160, TT) °L6
FSS: WASHINGTON (DL)
Remarks: Prior permission required.
TOWER [1]121.3 126.2 317T
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[3]
BALTIMORE DEP CON 120.4
REMARKS: [1]Oper 1200-2030Z Mon; 1200-0330Z Tues, Wed & Thurs; 1230-2100Z Fri, 1230-2100Z Sat & Sun- [2]090° -269° [3]270° -089°.

MASSACHUSETTS

BEDFORD
LAURENCE G HANSCOM FLD *IFR* 1 S 112° 4 NM from BE RBn
133 H70/11-29 (2) (S-80, T-200, TT-355) BL4, 6, 8 S5
F5, JP1, 4 FSS: BOSTON (DL)
REMARKS: Ctc twr for taxi instr.
TOWER 118.5 126.2 124.4 122.5R 3023.5RX
GND CON 121.7 VFR ADV Inbnd acft ctc APP CON
APP CON 124.4 126.2
RADAR SERVICES:[1]
PAR Rnwy 11 Ceiling 300 Vsby ¾ mi Min Alt 433
ILS 109.5 I-BED Apch brng 112°
VHF/DF available, contact tower.
REMARKS: [1]GCA oper 1300-0300Z Mon-Sat. IFF SIF avbl.
VOT: 110.0

BOSTON
LOGAN INTL *IFR* 1 E (BOS VOR on FLD)
19 H100 4R-22L (4) (S-200, T , TT) BL6, 8A, 10
S5 F4, JP4, 5 U2 VASI: Rnwy 22L RVR: Rnwy 4R
FSS: BOSTON on Fld
REMARKS: Fee. ctc twr for taxing inst. Rnwy 4R-22L usable width 150'. Lndg threshold rnwy 4R displaced 2502' to NE, 10, 023' avbl except lndg length toward NE restricted to 7521' during IFR conditions and hrs of darkness. Rnwy perimeter lighted SW of displaced threshold shows red apchg from SW. 180° green outboard type lgts at displaced threshold visible from SW only. Rnwy 4L-22R usable width 150' threshold at apch end 22R reloc 800' SW; 360° green outboard reloc 800' SW; 360° green outboard type lgts at

displaced threshold. Perimeter lgts of 800' overrun area at NE end 22R show red apchg from the NE and blue from SW. Usable length restricted to 7070' except full 7870' avbl for takeoff toward the SW and 800' overrun area avbl for lndgs toward the NE. Rnwy 15-33 usable width 150' usable length 7883', rnwy 9-27 usable width 150' usable length 7021' instrument marking. Birds - vic field. Const in progress. Itinerant parking area W of station #23 and south hangar concrete area west of EAL hangar restricted to acft 90,000 lbs or less. Preferential rnwy sys established air tfc ctl. (CAR Amdt 60-24 efctv Dec 26, 1961.) Tmprly lndg threshold rnwy 4R displaced 2502' to NE for all lndg operns. During dalgt hrs tkof threshold rnwy 4R displaced 600' to NE and txwy dog leg to rnwy 4R clsd.

BOSTON TOWER 118.1 126.2 122.5R 110.3T
CLRNC DEL 121.65 **BOSTON GND CON** 121.9
RADAR SERVICES:
BOSTON APP CON 120.7 126.5 126.2 122.5R 110.3T 382T
BOSTON DEP CON 119.1
PAR Rnwy 4R ceil 200 vsby ½ mi min alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719. Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619. Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519
ILS 110.3 I-Bos Apch Brg 035° BC unusable. 110.7 I-LIP Apch Brg 330° BC unusable
VHF/DF available, contact Tower.
REMARKS: IFF Svc avbl. GCA touchdown 3500' fm apch end of rnwy. Aprx 6500' remaining.
VOT: 111.0

HYANNIS
BARNSTABLE MUNI *IFR* 1 N (242° 3.2 from HYA VOR)
52 H55/6-24 (2) (S-46, T-88, TT-134) BL4, 6, 8 S5
F5, JP5 U2 **RVV:** Rnwy 24 **FSS:** NANTUCKET (DL)
REMARKS: Poles SE, SW. E 2000' rnwy 11-29 open for dalgt lndgs and tk-ofs to acft under 12,500 lbs on pilot req only.
HYANNIS TOWER 119.5 122.5R
HYANNIS GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 110.5 I-HYA Apch Brg 246° BC unusable

NANTUCKET MEMORIAL *IFR* 3 SE (240° 1.9 NM from ACK VOR)
47 H50/6-24 (2) (S-90, T-160, TT-293) BL4, 6, 8 S3 F4
RVV: Rnwy 24 **FSS:** NANTUCKET on Fld
REMARKS: Ctn-birds vic fld.
TOWER [1]118.3 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 109.1 I-ACK Apch Brg 240°
VHF/DF available, contact Tower.
REMARKS: [1]Oper 1200-0400Z advisory svc other times.

NEW BEDFORD MUNI *IFR* 2 NW (053° 3.8 NM from EW LOM)
79 H50/5-23 (2) (S-50, T-65, TT) BL4, 6, 8 S5 F4
U2 **FSS:** NANTUCKET (DL)
REMARKS: Ctc twr for taxiing instr. Birds vic arpt. ILS apch zone for rnwy has unlgtd trees protruding above the 7 to 1 slope.
TOWER 121.3 122.5R 109.7T **GND CON** 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.8 I-EWB Apch Brg 053°

WESTFIELD
BARNES MUNI *IFR* 3 N (BAF VOR on field)
270 H90/2-20 (3) (S-60, T , TT BL4, 6 S5 F4, [illegible]
FSS: WINDSOR LOCKS [illegible]
REMARKS: Acft arresting barriers installed rnwy 2-20 a.b on req.
WESTFIELD TOWER [1]121.3 126.2 122.5R
WESTFIELD GND CON 121.7
REMARKS: [1]Oper 1100-0300Z.

WORCESTER MUNI *IFR* 3 W (332 4 NM from OR LOM)
1009 H55/15-33 (3) (S-90, T , TT) BL6, 7 S5
F4, JP1 **RVV:** Rnwy 33 **FSS:** WORCESTER [illegible]
TOWER 120.5 121.9 110.9T 255T
GND CON 121.9
ILS 110.9 I-ORH Apch Brg 332° BC unusable

MICHIGAN

BATTLE CREEK
W K KELLOGG REGIONAL AIRFIELD *IFR* 3 W (BTL VOR on field)
941 H70/4-22 (4) (S-40, T-65-TT-115) BL4, 6 S5 F4
FSS: JACKSON [illegible]
REMARKS: Rnwys 9-27, 18-36 clsd dur winter mos.
BATTLE CREEK TOWER 118.5 122.5R 396T
BATTLE CREEK GND CON 121.9
VFR ADV Ctc APP CON on 121.2 when 25 mi out.
BATTLE CREEK APP CON 121.2 122.5R
ILS 110.5 I-BTL Apch brg 224°

DETROIT CITY *IFR* 5 NE (350° 8.2 NM from QG VOR AOE
626 H46/15R-33L (3) (Max-15) BL4 S5 F4, JP1 L[illegible]
FSS: DETROIT [illegible]
TOWER 118.7 122.5R 278T **GND CON** 121.9
APP CON 120.0 122.5R
DEP CON 127.3
VHF/DF available, contact tower.
REMARKS: **VOT:** 112.0

DETROIT METROPOLITAN WAYNE CO *IFR* 15 SW (032° 4.2 NM from (DT) LOM) AOE
639 H105/3L-21R (4) (S-200, T-200, TT-400) BL4, 5 [illegible]
S5 F4, JP1, 4 U2 **VASI:** Rnwy 27 **RVR:** Rnwy [illegible]
FSS: DETROIT [illegible]
REMARKS: Rnwy 15 threshold displaced 650', transient [illegible] park executive trml. Loading stops gates 11 and 15.
DETROIT METROPOLITAN TOWER 121.1 126.2 [illegible] 109.3T
CLRNC DEL 120.65
DETROIT METROPOLITAN GND CON 121.7
RADAR SERVICES:
WILLOW RUN APP CON 123.7 125.15 124.9 [illegible] 114.9T 109.5T 332T
WILLOW RUN DEP CON 118.4
ILS 109.3 I-DTW Apch Brg 032° 110.7 I-DWC Apch Brg 212°

ROIT
LLOW RUN *IFR* 19 SW (YIP VOR on field)
'16 H75 5R-23L (5) (S-60, T-90, TT-200) BL 2, 4, 6, 8
SS F5, JP1, 4 RVR: Rnwy 5R FSS: DETROIT (DL)
TOWER 121.3 122.6R 109.5T GND CON 121.9
RADAR SERVICES:
APP CON 125.15 124.9 123.7 122.6R 114.9T 109.5T
DEP CON 118.4
TFC INFO Ctc APP CON on 124.9 or 123.7
PAR Rnwy 5R ceil 200 vsby ½ mi min alt 916. Rnwy 5L ceil 400 vsby 1 mi min alt 1116
ASR Rnwy 9L ceil 600 vsby 1 mi min alt 1316. Rnwys 5L, 5R, 14, 36 ceil 500 vsby 1 mi min alt 1216. Rnwys 18, 23L, 23R, 27L, 27R, 32 ceil 400 vsby 1 mi min alt 1116
LS 109.5 I-YIP Apch Brg 050°
/HF DF available, contact tower.
/OT: 109.0

T
HOP *IFR* 3 SW (FNT VOR on field)
81 H56 9-27 (3) (S-40, T-60, TT-110) BL4, 6, 8 S5 F4
:2 FSS: LANSING on Fld
EMARKS: Rnwy 18 threshold displaced 635 ft.
LINT TOWER 119.5 123.6 122.5R 111.6T 109.9T
FLINT GND CON 121.9 VFR ADV Ctc APP CON on 123.6 aprx. 25 NM out.
FLINT APP CON 123.6 122.5R 119.5 111.6T 109.9T
LS 109.9 I-FNT Apch Brg 091°

ID RAPIDS
NT COUNTY *IFR* 6SE (351° 5.7 NM from GRR VOR)
93 H66/8-26 (2) (Max-45) BL6, 8 S5 F5, JP1 U2
VV: Rnwy 26 FSS: SAGINAW on Fld
OWER 119.3 122.5R GND CON 121.9
VFR ADV Inbnd VHF equipped acft ctc APP CON on 124.6 MCS 10 mi out.
GRAND RAPIDS APP CON 124.6 122.5R 109.7T 329T
.S 109.7 I-GRR Apch Brg 262°

ON
NOLDS MUNI *IFR* 2 W (JXN VOR on field)
00 H53/5-23 (2) (S-60, T-80, TT-) BL4 S5
4, JP4 FSS: JACKSON on Fld
EMARKS: Rnwy 5 threshold displaced 627 ft.
CKSON TOWER [1]120.7 122.5R 121.9 109.6
CLRNC DEL 121.9
JACKSON GND CON 121.9
EMARKS: Twr oper 1200-0400Z.

AZOO MUNI *IFR* 1 SE (AZO VOR on field)
'4 H53/17-35 (3) (S-30, T-50, TT-85[1]) BL4, 6, 8 S5
4, JP5 U2 FSS: JACKSON (LD ST 4-9640)
EMARKS: [1](S-40, T-65, TT-110) avail rnys 5-23 & 9-27
OWER [1]118.3 122.7R 362T GND CON 121.7
BATTLE CREEK APP CON 121.2
.S 110.9 I-AZO Apch Brg 352°
EMARKS: [1]Oper 1200-0400Z.

NG
ITAL CITY *IFR* 3 NW (054° 5.4 NM from LAN VOR)
·9 H65/9-27 (2) (S-30, T-40, TT) BL4, 6, 8 S5
4, JP1 RVV: Rnwy 27 FSS: LANSING on fld
LANSING TOWER 119.9 122.5R 110.8T 110.1T
LANSING GND CON 121.9 VFR ADV Ctc APP CON on 127.4 aprx 25 NM out.
LANSING APP CON 127.4 122.5R 110.8T 110.1T
ILS 110.1 I-LAN Apch Brg 273°

MUSKEGON CO *IFR* 4 S (272° 8.4 NM from MKG VOR)
628 H56 14-32 (3) (S-30, T-40, TT) BL6, 8 SS F4
U2 RVV: Rnwy 32 FSS: MUSKEGON on Fld
REMARKS: Rnwy 36 threshold displaced 300'. Rnwy 14 threshold displaced 300'.
TOWER 121.1 122.5R GND CON 121.9 VFR ADV Ctc APP CON aprx 25 mi out on 118.2
APP CON 118.2 122.5R 115.6T 109.9T
ILS 109.9 I-MKG Apch Brg 317° BC unusable

PONTIAC MUNI *IFR* 5 W (119° 4.9 NM from PTK VOR)
974 H53/9-27 (3) (S-40, T-65, TT-110) BL6 S5 F4 U2
FSS: DETROIT (LD PA 2-8790)
TOWER [1]120.5 122.5R 275Tx GND CON 121.9
RADAR SERVICES:
CLEVELAND CENTER APP CON 126.4
CLEVELAND CENTER DEP CON 126.4
REMARKS: [1]Oper 1100-0300Z.

MINNESOTA

DULUTH INTL *IFR* 5 NW (013° 2.2 NM from DLH VOR) AOE
1429 H80/9-27 (3) (S-60, T-100, TT-185) BL4, 6, 8 S5
F5, JP4 VASI: Rnwy 27 RVV: Rnwy 9-27
FSS: HIBBING on Fld
REMARKS: Caution, const in prog. 2000' concrete extsn w of rnwy 9 threshold lgts and end mrkgs unusable. Jet arresting barrier cable installed 1600' from apch end rnwy 27 and 500' from apch end rnwy 9.
TOWER 118.3 126.2 122.5R 379T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 125.8 122.5R 112.6T 110.3T
DEP CON 126.2
PAR Rnwy 9, 27 Ceil 300 Vsby ½ mi Min alt 1729.
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829. Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS 110.3 I-DLH Apch Brg 088°
VHF/DF available, contact Tower.
REMARKS: Acft arriving Duluth with proper freq are rqrd to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. IFF SIF svc avbl.

MINNEAPOLIS
CRYSTAL *IFR* 8 NW (166° 4.9 NM from MSP VOR)
869 H32/13L-31R (2) (Max-4) BL4 S5 F4
FSS: MINNEAPOLIS (LC PA 9-1957)
REMARKS: Grass strips usable but rough. Portions of arpt not visible from twr. Threshold rnwy 23R displaced 400' SW landing distance available 2100'.
TOWER [1]120.7 122.5R 257T GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNEAPOLIS
FLYING CLOUD *IFR* 11 SW (FCM VOR on field)
909 H36/9L-27R (3) (Max 8) BL4 S5 F4, JP4
FSS: MINNEAPOLIS (DL)

TOWER [1]120.5 122.5R 272T GND CON 121.7
RADAR SERVICES
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNEAPOLIS-ST PAUL INTL *IFR* 6S (287° 2.4 NM from MSP RBn)
840 H100/11R-29L (3) (S-120, T-180, TT-400) BL6, 8, 10
S5, JP1, 4 VASI: Rnwy 11R RVR: Rnwy 4
FSS: MINNEAPOLIS on Fld
REMARKS: First 1000' NE end rnwy 4-22 clsd to non-mil acft. Rnwy 11L-29R threshold displaced 610' SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
MINNEAPOLIS TOWER 118.7 126.2 120.5
CLRNC DEL 119.55
MINNEAPOLIS GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
PAR Rnwy 29L Ceil 300 Vsby ¾ mi Min Alt 1140.
ASR Rnwy 11R Ceil 400 Vsby 1 mi Min Alt 1240. Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440. Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295°
VHF/DF available, contact Tower.
REMARKS: CAUTION—on apch to rnwy 11R do not descend below 1400' until radar controller has advised passing twr 2.5 fm apch end rnwy 11R.
VOT: 111.0

ROCHESTER MUNI *IFR* 7 S (025° 8.3 NM from RST VOR)
1310 H64/13-31 (2) (Max 60) BL4, 6, 8 S5 F4, JP4 U2
RVV: Rnwy 31 FSS: ROCHESTER on fld
TOWER 118.3 122.5R 121.9 278Tx GND CON 121.9
VFR ADV Ctc APP CON on 119.8.
APP CON 119.8 122.5R 112.0T 109.9T
ILS 109.9 I-RST Apch Brg 307°

ST PAUL-DOWNTOWN *IFR* 1 S (289° 4.6 NM from STP VOR)
703 H55/12-30 (3) (Max 45) BL2, 4 S5 F5, JP5 U2
FSS: MINNEAPOLIS (LC PA 9-1957)
REMARKS: 4562 ft avbl lndg rnwy 12. NE-SW rnwy used as txwy.
ST PAUL TOWER [1]119.1 122.5R 396T
ST PAUL GND CON 121.7
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MISSISSIPPI

GULFPORT MUNI *IFR* 3 NE (GPT VOR on field)
28 H90/13-31 (3) (S-60, T-115, TT-210) BL4, 6 S5 F5
U2 FSS: MOBILE (LC 864-1864)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Arrest barrier in oper on rnwy 13-31. J-bar avbl rnwy 13-31 on 5 min notice. Ctn-birds vic arpt. 1000 ft overruns ea end rnwy 13-31.
TOWER 121.3 122.5R 109.0T GND CON 121.9
APP CON 119.3 122.5R 109.0T

JACKSON
HAWKINS FIELD *IFR* 2 NW (189° 10.8 NM from JAN VOR
343 H54/16R-34L (2) (Max 15)[1] BL4, 6 S5 F4 U2
FSS: JACKSON (LC 354-5
REMARKS:[1] Max 20 avol rny 16R-34L. Due non-vsby sorts of fld ctc twr for instr. Ctn-birds vic fld. Rnwys 16-L-34R 2-20 perm clsd.
TOWER 118.7 126.2 122.5R 278T
RADAR SERVICES:
JACKSON APP CON 123.9[1] 125.2[2]
JACKSON DEP CON 123.9 125.2
REMARKS: [1]333°-152°. [2]153°-332°.

JACKSON
THOMPSON FIELD *IFR* 5 E (151° 11.7 NM from JAN VOR
345 H85/15-33 (1) (S-120, T-150, TT-265) BL6, 8 S5
F5, JP5 U2 RVV: Rnwy 15 FSS: JACKSON
REMARKS: Const vic N & W ramp area. Const parallel rny 6600 X 150 until aprx Jan 65.
JACKSON TOWER 120.9 126.2 122.7R 348T
JACKSON GND CON 121.7
RADAR SERVICES:
JACKSON APP CON 125.2[1] 123.9[2]
JACKSON DEP CON 125.2[1] 123.9[2]
ASR Rnwys 15, 33 Ceil 400 Vsby 1 mi Min Alt 745
ILS 110.5 I-JAN Apch Brg 152°
REMARKS: [1]153-332°. [2]333° - 152°.

MERIDIAN
KEY FIELD 3 SW (129° 3.5 NM from MEI VOR)
297 H80/1-19 (2) (S-45, T-120, TT-220) BL6 S3 F4
RVV: Rnwy 01 FSS: MERIDIAN
REMARKS: Transmissometer rnwy 1. Svc days only.
TOWER [1]118.2 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
MERIDIAN APP CON [2]120.5
MERIDIAN DEP CON 124.7
ILS 110.1 I-MEI Apch Brg 004°
REMARKS: [1]Oper 1400-2300Z daily, closed holidays. [2]Oper 1200-0500Z. Oper by the ANG. IFF/SIF svc avbl.

MISSOURI

KANSAS CITY
MID-CONTINENT INTL *IFR* 15 NW (005° 4.4 NM from MCI
1011 H90/18-36 (1) (S , T-150, TT-300) BL6, 8 F5,
RVV: Rnwy 36 FSS: KANSAS CITY (LC GR
REMARKS: W 4000' of E/W txwy avbl for use as rnwy for lbs or less dur strong winds.
TOWER [1]120.7 122.4R GND CON 121.8
RADAR SERVICES:
KANSAS CITY APP CON 119.5[2] 126.2 122.7R
112.6T 109.9T KANSAS CITY DEP CON
ILS 110.5 I-MCI Apch Brg 005°
REMARKS: [1]Oper 1300-0500Z. [2]E sector. [3]W sector.

KANSAS CITY MUNI *IFR* 4 N (171° 8.7 NM from MRC VOR
758 H70/18-36 (3) (S-110, T-165, TT-365) BL4, 6, 8
F4, JP1 U2 RVV: Rnwy 18 FSS: KANSAS CITY
REMARKS: Rnwy 35 usable daylight hrs only.
TOWER 118.3 126.2 125.8 122.7R 121.1 111.4T
CLRNC DEL 125.8 GND CON 121.9
RADAR SERVICES:
APP CON 119.5[1] 126.2 122.7R 121.1[2] 112.6T
DEP CON 118.1 PAR Rnwy 18 Ceil 400 Vsby
Min Alt 1158.

ILS 109.9 I-MKC Apch Brg 185° BC unusable
VHF DF available, contact tower.
REMARKS: Req all arriving VFR flts eqp with proper simplex freqs make initial ctc with Kansas City app con on appropriate freq for preliminary landing info. Acft approaching fm 001 - 180° use 119.5 and/fm 180°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth.
VOT: 108.6

OSEPH
)SECRANS MEMORIAL *IFR* 3 WNW (167° 10.7 NM from STJ VOR)
226 H80/17-35 (3) (S-60, T-160, TT-250) BL4, 6, 8 S5
F4, JP4 FSS: ST JOSEPH on Fld
TOWER 119.9 122.5R GND CON 121.9
KANSAS CITY APP CON 121.1 126.2 122.7R 119.5
KANSAS CITY DEP CON 119.1
ILS 110.3 I-STJ Apch Brg 352°

OUIS
MBERT-ST LOUIS *IFR* 10 NW (137° 8 NM from STL VOR)
571 H100/12R-30L (4) (Max 75)[1] BL4, 6, 8 S5 F4, JP1, 5 U2 RVR: Rnwy 24 FSS: ST LOUIS on Fld
REMARKS: [1](Max-10D) aval rnwy 17-35. Birds in SE sector arpt nights.
ST LOUIS TOWER 118.5 126.2 122.7R 122.5R[1] 119.5 278T CLRNC DEL 119.5 ST LOUIS GND CON 121.9 122.5R
RADAR SERVICES:
ST LOUIS APP CONN 126.5[2] 123.7 122.5R 118.1 [3]117.4T 110.3T ST LOUIS DEP CON 119.9
PAR Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 mi Min Alt 1071. Rnwys 12L, 30R Ceil 500 Vsby 1 ½ mi Min Alt 1071. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
LS 110.3 I-STL Apch Brg 238°
/HF DF available, contact tower.
EMARKS: [1]May be descmend. [2]Southeast arrivals. [3]Northwest arrivals. Except rnwy 12.
/OT: 111.0

GFIELD MUNI *IFR* 5 NW (193° 6.8 NM from SGF VOR)
267 H56/1-19 (2) (S-80, T-135, TT-300) BL4, 6, 8 S5
5, JP4 RVV: Rnwy 1 FSS: SPRINGFIELD on Fld
OWER 119.9 122.5R GND CON 121.9
VFR ADV 125.8
APP CON 125.8 122.5R 116.9T 109.9T 254T
-S 109.9 I-SGF Apch Brg 015°

MONTANA

NGS
AN FIELD *IFR* 2 NW (070° 3.2 NM from BIL VOR)
606 H86/9-27 (3) (S-60, T-80, TT-120) BL2, 6, 8 S5
5, JP1, 4 U2 RVV: Rnwy 9 FSS: BILLINGS on Fld
EMARKS: Due non-vsby some areas of fld ctc twr for instr.
ILLINGS TOWER 118.3 122.5R 3023.5R 278T
BILLINGS GND CON 121.9
BILLINGS APP CON 118.3 122.5R 120.5 114.5T 110.3T 3023.5R 278T
-S 110.3 I-BIL Apch Brg 095°

GREAT FALLS INTL *IFR* 3 SW (026° 1.9 NM from GTF VOR)
3671 H90/3-21 (4) (S-60, T-80, TT) BL4, 6, 8 S5
FS, JP1 U2 RVV: Rnwys 16, 34
FSS: GREAT FALLS on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Rnwy 7-25 rest to acft 64,000 lbs or less. Rnwy 7-25 may be used by acft over 64,000 lbs in emerg or adverse wind conditions at discretion and req or pilot and or air carrier. Rnwy 11-29 clsd.
TOWER 118.7 126.2 122.5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1 134.1 126.2 122.7R 122.5R× 121.1 119.3 116.3T 3023.5R× DEP CON 121.1
TFC INFO Ctc APP CON on 118.1 119.3 or 122.5R
ILS 110.3 I-GTF Apch Brg 341° BC unusable

HELENA CITY-COUNTY *IFR* 2 NE (240° 0.7 NM from HLN VOR)
3873 H70, 8-26 (3) (S-60, T-70, TT-122) BL4 S5 F5 U2
FSS: HELENA on Fld
REMARKS: Rnwy 11-29 rest to 100,000 lbs GWT. Rgt tfc W, SW, NW.
HELENA TOWER 118.3 122.5R 278T GND CON 121.9

MISSOULA CO *IFR* 4 NW (MSO VOR on fld)
3203 (H59, 16-34 (3) (Max-30) BL2, 4 S5 F4 U2
FSS: MISSOULA on Fld
REMARKS: Rnwy 11-29 rest to 150,000 lbs gwt with 1387 ft emerg overrun NW end for acft under 26,000 lbs. Rnwy 16-34 rest to 65,000 lbs GWT. Rnwy 7-25 rest to 12,500 lbs GWT. Rnwy ctn-ctc twr for taxi instr. W 3398 ft rnwy 7 clsd til Jan 65.
TOWER [1]118.5 122.5R 278T GND CON 121.9
REMARKS: [1]Oper 1300-0500Z.

NEBRASKA

LINCOLN MUNI/AFB *IFR* 4 NW (351° 4.8 NM from LN RBN)
1198 H129/17R-35L (2) [1](Max-15) BL4[1], 8A S5 FS, JP1
RVV: Rnwys 17, 35 FSS: LINCOLN on Fld
REMARKS: [1]H129, 17R-35L avail IFR, BL6, 8 (Mil). All civ acft use 4000 ft rnwy 17L-35R excpt in actual IFR conditions or when acft manufacturers recommendations rqr the use of rnwy 17R-35L. Ctn-jet tfc.
TOWER 118.5 126.2 122.5R 272T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.7 124.8 120.4 109.9T 108.4T 3023.5R DEP CON 119.8
TFC INFO ctc twr 25 mi out.
ILS 109.9 I-LNK Apch Brg 351°
REMARKS: IFF/SIF svc avbl GCA touchdown point fm apch end rnwy 35, 2550', fm rnwy 17, 1000'.

OMAHA
EPPLEY FIELD *IFR* 3 NE (309° 10.2 NM from OMA VOR)
983 H85/14-32 (4) (S-180, T-200, TT-400) BL4, 6, 8, 11
S5 F5, JP1, 4 RVV: Rnwy 14 REIL: Rnwy 35
FSS: OMAHA on Fld
REMARKS: US Customs lndg rts arpt
TOWER 119.1 126.2 122.5R OMAHA GND CON 121.9
RADAR SERVICES: (BCN)
OMAHA APP CON 120.1 125.7 122.5R
OMAHA DEP CON 124.5 118.0
ILS 110.3 I-OMA Apch Brg 135°. BC unusable

NEVADA

has passed a pt 3 mi before the rnwy. IFF/SIF svc avbl.

LAS VEGAS

McCARRAN FIELD *IFR* 5 S (LAS VOR on fld)
2171 H100/7-25 (3) (S-100, T-200, TT-380) BL4, 6, 10 S5 F5, TF1, JP4, 5 U2 VASI: Rnwy 25
FSS: LAS VEGAS on Fld
REMARKS: Ctn-hi density jet tfc vic arpt. Due non-vis some areas of fl ctc twr for instr. Rnwy 7 threshold displaced 750 ft E. 9245 avbl lndg rnwy 7. Rnwy 32 threshold displaced 379 ft NW. 4027 ft avbl lndg rnwy 32. Rnwy 1 threshold displaced 625' N. 5878 avbl lndg rnwy 1.
TOWER 118.3 1 5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
LAS VEGAS APP CON 121.1 125.9 122.5R 116.9T
LAS VEGAS DEP CON 119.4
TFC INFO Ctc APP CON on 121.1 30 mi out.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571. Rnwys 1, 7[1] Ceil 600 Vsby 1 mi Min Alt 2771
REMARKS: [1]Acft inbnd on FAP to rnwys 1 or 7 will dsnd not lwr than 3100 until pilot is notified by RAPCON that he

RENO MUNI *IFR* 2 SE (229° 5.1 NM from RNO VOR)
4411 H78/16-34 (2) (S-100, T-200, TT-350) BL6, 8 S5 F5, JP1, 5 U2 FSS: RENO on Fld
REMARKS: Rnwy 16-34 extension constr 1200 ft S end until Jan 65. Const will periodically affect opernl use of rnwy varying daily with nature of work. Due non-vis some areas of fld ctc twr for instr.
TOWER 118.3 278T GND CON 121.9
APP CON 119.2 117.9T 254T

NEW HAMPSHIRE

MANCHESTER

GRENIER FIELD *IFR* 3 S (337° 4.2 NM from MHT VOR)
233 H70/17-35 (2) (S-127, T-200, TT-400) BL4, 11 S3 F4 U2 REIL: Rnwy 35 FSS: CONCORD (DL)
TOWER[1] 121.3 126.2 122.5R
REMARKS: [1]Oper 1000-0300Z.

NEW JERSEY

NAFEC/ATLANTIC CITY *IFR* 9 NW (ACY VOR on airport)
76 H100/13-31 (4) (MAX-60) BL4, 6, 8 S3 F5, JP4
FSS: MILLVILLE (DL)
REMARKS: Ctn-const on fld. Ctn-hvy jet opers wk-ends & holidays during VFR. Lndg & overnite fees RQRD
TOWER 119.5 128.4 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
ATLANTIC CITY APP CON 124.6 126.2 122.5R 119.5 108.6T
ATLANTIC CITY DEP CON 128.4
PAR Rnwy 13 Ceil 200 Vsby 1/2 mi Min Alt 276. Rnwys 4, 31 Ceil 300 Vsby 3/4 mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I-ACY Apch Bng 128° BC unusable
VHF/DF available, contact tower
REMARKS: [1]400 aux for rnwys 13, 17, 22, 22, 26, 31. SIF svc avbl.

CALDWELL-WRIGHT 1 N (146° 16.1 NM from SAX VOR)
175 H47/4-22 (3) (MAX-20) BL4 S5 F5 U2
FSS: TETERBORO
REMARKS: Ctn/Glider activity vic arpt. Rgt tfc rnwy 22, 27. Rgt tfc on tkofs only rnwy 32. Arpt attnd 8 AM to 9 PM.
FAA DEP PROC: Rnwy 27 acft shall not start crosswind trn until well past the school lctd 1/4 mi to the right of the extended rnwy centerline and 1/4 mi from the arpt. Rnwy 32 acft shall bear right as soon as practicable after take-off to avoid flying over the Fairfield township school lctd 1/4 mi NW of arpt and slightly left of the extended rnwy centerline.
TOWER [1]126.5 122.5R
RADAR SERVICES:
NEWARK APP CON 127.6[2] 124.3[3] 122.7R 120.6 3023.5R
NEWARK DEP CON 119.2 120.6
REMARKS: [1]Oper 1330Z-SS daily. [2]270°-089°. [3]090°-269°.

MORRISTOWN MUNI *IFR* 2 E (020° 3.1 NM from CAT RBn)
187 H40/4-22 (2) BL4, 6 S5 F5, JP1 U2
FSS: TETERBORO (LC JE8-2[illegible]
REMARKS: Due non-vis some areas of fld ctc twr for instr. Dips first 800 ft rnwy 22. Deer on arpt. Ngt trng flts by non-based acft prohibited.
TOWER[1] 118.1 122.7R GND CON 121.7
NEWARK APP CON 127.6[2] 124.3[3] 120.6 122.7R
NEWARK DEP CON 119.2 120.6
REMARKS: [1]Oper 1200-0400Z. [2]North. [3]South.

NEWARK MUNI *IFR* 2 S (058° 1 NM from EWR RBn)
18 H70/4-22 (2) (MAX-55) BL4, 6, 8A, 10, 11 S5 F5, JP U2 REIL and VASI: Rnwy 29 RVR: Rnwy 4
FSS: TETERBORO [illegible]
REMARKS: US Customs lndg rts arpt fee.
TOWER 118.3 126.2 122.7R 110.3T 109.3T 109.1T
CLRNC DEL 121.4 GND CON [illegible]
RADAR SERVICES: (BCN)
APP CON 127.6[2] 124.3[3] 122.7R 120.6 110.3T [illegible] 3023.5R 379T
DEP CON 119.2 120.6
TFC INFO Inbnd tfc ctc APP CON on 126.2 25 mi out.
PAR Rnwy 4 Ceil 200 Vsby 1/2 mi Min Alt 218
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618. Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. 109.1 I-ARK Apch Brg 217°
VHF/DF available, contact tower.
REMARKS: [1]Min of 700 apply for rnwy 11. [2]North. [3]South. IFF svc avbl.
VOT: 108.6

TETERBORO MUNI *IFR* 1 SW (060° 4 NM from TE LOM)
7 H50/6-24 (3) (MAX-20) BL4, 8 S5 F5, JP1
FSS: TETERBORO [illegible]
REMARKS: Fee. Dep procedures in effect ctc twr for instr. Rnwy 32 clsd for tkofs. Rnwy 14 clsd for lndgs. Clsd to [illegible] acft except prior pmsn. Ctc twr for taxi instr. Rnwy 24 [illegible] restd by poleline-glide angle 6 to 1.
TOWER 119.5 122.5R GND CON [illegible]
RADAR SERVICES:
NEWARD APP CON 127.6 124.3
NEWARK DEP CON 119.2 120.6
ILS 109.3 I-TEB Apch Brg 060°. BC unusable

ENTON
IERCER COUNTY *IFR* 4 NW (081° 4.6 NM from ARD VOR)
213 H52.6-24 (3) (S-30, J- , TT-) BL4, 11 S5 F4, JP4, 5
U2 REIL: Rnwy 6 FSS: PHILADELPHIA (DL)
REMARKS: Fee. Acft dep rnwy 24 str out to Delaware River before left turn. Ctn-const or fld. Rnwy 6 apch rest by poleline-glide angle 9 to 1.
TRENTON TOWER 119.3 122.5R
TRENTON GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R 109.3T
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089°. [2]090°-269°.

NEW MEXICO

UQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE (077° 9.6 NM from ABQ VOR)
5352 H127/8-26 (4) (S-100, T-155, TT-445) BL4, 6, 8, 10
S5 F5, JP1, 4 U2 VASI: Rnwy 8
RVV: Rnwy 35 FSS: ALBUQUERQUE on Fld
REMARKS: Tkofs rnwy 3 and 35 restr to DC-3 and smaller.
ALBUQUERQUE TOWER 118.3 126.2 122.5R 119.2
CLRNC DEL 119.2
ALBUQUERQUE GND CON 121.9
RADAR SERVICES: (BCN)
ALBUQUERQUE APP CON 124.3 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
ALBUQUERQUE DEP CON 121.1
TFC INFO 123.9
PAR Rnwy 8[1] Ceil 300 Vsby 3/4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I-ABQ Apch Brg 350°
REMARKS: [1]500-1 1/2 rqrd for civil jet acft. IFF svc avbl.
VOT: 111.0

BS, LEA COUNTY *IFR* 4 W (030° 3.5 NM from HOB VOR)
3659 H63/3-21 (4) BL4, 6 S5 F4 U2
FSS: HOBBS on Fld
TOWER 118.3 126.2 122.5R 215T GND CON 121.9

SWELL MUNI *IFR* 1 NW (027° 4.9 NM from ROW VOR)
4623 H55/12-30 (4) (S-40, T-55, TT-) BL4 S5 F4
FSS: ROSWELL on Fld
REMARKS: Rgt tfc rnwys 12, 17, 21, 26
TOWER[1] 118.5 122.5R 278T GND CON 121.9
WALKER APP CON 123.8 126.2x 122.7R 120.2x
WALKER DEP CON 123.8 122.7R
TFC INFO [2]Ctc Walker APP CON 30 mi out on 123.8, 120.2 122.7R
REMARKS: [1]Oper 1300-0500Z. [2]Ots ufn.

A FE COUNTY MUNI *IFR* 9 SW (332° 4.2 NM from SAF VOR)
5344 H83/2-20 (3) (S-45, T-60, TT-) BL4 S5 F4, JP1
FSS: SANTA FE on Fld
REMARKS: Rnwy 10-28 rest to air carrier acft.
TOWER 126.2 122.5R 119.5 GND CON 121.7

NEW YORK

NY COUNTY *IFR* 6 NW (ALB VOR on fld) AOE
88 H50/1-19 (3) (S-110, T-200, TT-400) BL4, 6, 8 S5
5, JP1, 4 RVV: Rnwy 19 FSS: ALBANY on Fld
REMARKS: Fee. Cm-vehicles vic apch rnwy 1-19. Rnwy 1 apch rest by road-glide angle 1 to 1. Rnwy 33 apch rest by trees-glide angle 1 to 1.
TOWER 119.5 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.0 124.7 122.5R 109.5T
DEP CON 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I-ALB Apch Brg 191°
REMARKS: IFF SIF svc avbl.
VOT: 109.8

BETHPAGE
GRUMMAN-BETHPAGE *IFR* Adj W (265° 9 NM from DPK VOR)
119 H66/15-33 (2) (MAX-25) BL4 F5, JP4, 5
FSS: ISLIP (DL)
REMARKS: Rest to factory use. Rnwy 10 apch rest by poleline-glide angle 5 to 1. Clsd to public.
TOWER[1] 126.2 121.3 323T GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 118.4
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2330Z Mon-Fri. [2]054°-110°. [3]110°-160°

BINGHAMTON
BROOME COUNTY *IFR* 7 N (076° 7 NM from BGM VOR)
1629 H56/16-34 (2) (S-120, T-160, TT-) BL4, 6, 8 S5
F5, JP1 RVV: Rnwy 34 FSS: BINGHAMTON on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
TOWER 119.3 122.5R 114.3T 110.3T 109.6T
GND CON 121.9
RADAR SERVICES:
APP CON 118.6 DEP CON 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I-BGM Apch Brg 338° BC unusable

BUFFALO AOE
GREATER BUFFALO INTL *IFR* 5 E (287° 3.6 NM from BUF VOR) 719 H56/5-23 (2) (S-120, T-180, TT-400)
BL4, 6, 11 S5 F5, JP1, 4, 5 RVV: Rnwy 23
FSS: BUFFALO on Fld
REMARKS: Fee. Ctn apch rest rnwy 23. Rnwy 23 threshold displaced 900 ft SW. 4745 ft avbl lndg rnwy 23. Due non-vsby some areas of fld ctc twr for instr.
TOWER 120.5 122.5R
CLRNC DEL 124.7 GND CON 121.9
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1 110.3T
BUFFALO DEP CON 125.5
TFC INFO Inbnd acft ctc BUFFALO APP CON on 126.2 or 123.7 aprx 25 mi out.
ASR Rnwys 5, 18, 23, 31, 36 Ceil 400 Vsby 1 mi Min Alt 1119, Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 110.3 I-BUF Apch Brg 232°
VHF/DF available, contact tower
VOT: 109.0

CALVERTON
PECONIC RIVER *IFR* 2 W (091° 4.6 NM from RVH VOR)
75 H100/14-32 (2) (MAX-50) BL6 S5 F5, JP4, 5
FSS: ISLIP (DL)
REMARKS: Clsd to public. Civ airlines use ILS system for trng operns.

TOWER[1] 121.3 126.2 122.5R 3023.5R 323T
GND CON 121.9
ILS 110.7 I-CTO Apch Brg 048°
REMARKS: [1]Oper 1200-0500Z.

ELMIRA
CHEMUNG COUNTY *IFR* 5 NW (066° 6.6 NM from ELM VOR)
951 H56/6-24 (3) (MAX-15) BL4, 6, 8 S5 F5, JP1 U2
FSS: ELMIRA on Fld
REMARKS: Ctn-soilplane activity vic arpt.
ELMIRA TOWER 121.1 122.5R ELMIRA GND CON 121.9
ELMIRA APP CON[1] 121.1 122.5R
ILS[2] 109.1 I-ELM Apch Brg 239°
REMARKS: [1]Oper 1200-0400Z. [2]Rnwy 24 back crs rest. LOM not avbl.

FARMINGDALE
REPUBLIC AVIATION CORP *IFR* Adj NE (245° 6.2 NM from DPK VOR)
82 H75/14-32 (2) (MAX-25) L4 F4, JP4 FSS: ISLIP
REMARKS: Clsd to public. Rgt tfc rnwy 32. Rgt tfc tkof rnwy 19.
TOWER[1] 121.3 126.2 122.5R
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 126.05 123.7 122.7R
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2030Z. [2]054°-110°. [3]110°-160°.

ISLIP
MacARTHUR FIELD *IFR* 7 NE (057° 5.3 NM from IS LOM)
98 H50/6-24 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
F5, TF1 FSS: ISLIP on Fld
REMARKS: Ctn-birds vic arpt. Rnwy 28 apch rest by trees-glide angle 1 to 1.
TOWER 119.3 126.2 122.5R 110.1T 3023.5R
GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 118.4
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
ILS 108.3 I-ISL Apch Brg 057°
REMARKS: [1]054°-110°. [2]110°-160°

NEW YORK
JOHN F KENNEDY INTL *IFR* 11 SE (JFK VOR on fld)
12 H146/13R-31L (5) (S-100, T-185, TT-340) BL6, 8A, 10, 11, 14, 15 S5 F5, JP1, 4 U2 VASI: Rnwy 13R
RVV: Rnwys 22L, 25L, 31R RVR: Rnwys 31L, 4R
FSS: ISLIP (DL)
REMARKS: Fee. Clsd to fightertype, jet and turbprop acft excp with prior apvl and to routine mil tfc. Rnwy 13R-31L 14,572' with lndg threshold 13R displaced 3324', 31L 2600'. Rnwy 7-25 10,000' with lndg threshold 25 displaced 1800' Rnwy 4L-22R 7845' with lndg threshold rnwy 4L displaced 670'.
KENNEDY TOWER 119.1 134.1 122.7R 110.9T 109.5T
CLRNC DEL 121.65 KENNEDY GND CON 121.9
RADAR SERVICES: (BCN)
KENNEDY APP CON 118.0 134.1 123.7 122.7R 120.8 118.4 109.5T
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
TFC INFO Call Kennedy Tower on 120.8 or 127.05
PAR Rnwy 4R Ceil 200 Vsby 1/2 mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612. Rnwys 22R, 25L Ceil 500 Vsby 1 mi Min Alt 512. Rnwys 7R, 31R Ceil 400 Vsby 1 mi Min Alt 412
ILS 109.5 I-JFK Apch Brg 043°; 110.9 I-IWY Apch Brg 223°; 111.5 I-RTH Apch Brg 312°. BC unusable.
VHF/DF available, contact tower
REMARKS: [1]054°-110°, [2]110°-160°. IFF svc avbl.
VOT: 112.0

NEW YORK
LA GUARDIA *IFR* 4 E (178° 0.4 NM from LGA VOR)
21 H60/13-31 (2) (S-80, T-105, TT-105) BL6, 8A, 10, 11
S5 F5, JP1 VASI: Rnwys 13 and 31 TPA: 1500
RVV: Rnwy 4 FSS: TETERBORO DL
REMARKS: Fee. Rnwy 31 threshold displaced 175 ft NW. 5813 avbl lndg rnwy 31. Ctn-const vic int rnwy 22-13 day & nite. Due non-vsby some areas of fld ctc twr for instr. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior pmsn. Ctc twr for taxi instr. ATC will assign preferential rnwy. Ctn-arriving or dep arpt.
FAA DEP PROC: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
TOWER 118.7 126.5 122.7R 113.1Tx 109.9T
CLRNC DEL 126.15 GND CON 121.
RADAR SERVICES: (BCN)
APP CON 125.7[1] 122.7R 118.9[2] 109.9T
DEP CON 120.4 128.8
TFC INFO All inbound acft ctc APP CON
PAR Rnwy 4 Ceil 400 Vsby 3/4 mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 72[illegible]
Rnwy 31 Ceil 300 Vsby 1 mi Min Alt 321
ILS 109.9 I-LGA Apch Brg 044° BC unusable; 108.5 I-GDI Apch Brg 134°; 110.5 I-URD Apch Brg 224° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]180°-359° [2]360°-179° IFF svc avbl. GCA approach to rnwy 22 not authorized at this time.
VOT: 109.9

NIAGARA FALLS MUNI *IFR* 4 E (277° 4.2 NM from IA LOM)
590 H91/10L-28R (4) (S-90, T- , TT-) BL4, 6, 8 S5
F5 FSS: BUFFALO [illegible].
REMARKS: First 1000 ft rnwy 28R 10L clsd periodically due const. Ctn-hvy jet tfc vic arpt. Ctc twr 10 min prior to acquire jet barriers. Ctn-const in progress. No signal SS-SR to indicate IFR conditions less than 3 mi and or ceil less than 1000 ft.
NIAGARA TOWER 118.5 126.2 122.7R 110.1T 272Tx
NIAGARA GND CON 121.7
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1 110.3T 278T
BUFFALO DEP CON 125.5
ILS 110.1 I-IAG Apch Brg 277°. BC unusable.
VHF/DF available, contact tower.

ROCHESTER-MONROE CO *IFR* 3 SW (ROC VOR on fld) AC
560 H55/10-28 (4) (S-120, T-190, TT-320) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 28 FSS: ROCHESTER [illegible]
REMARKS: Rnwy 12 threshold displaced 150 ft SE. 2951 ft avbl lndg rnwy 12. Rnwy 30 threshold displaced 690 ft NW. 2351 ft avbl lndg rnwy 30. Longest rnwy 10-28 5500 ft. Rnwy 10-28 clsd periodically btn hrs 7 am-6 pm Sun & holidays due constr. CTN-vehicles vic rnwy const. New rnwy 4-22 under constr. Fee. No signal SS-SR to indicate IFR conditions.
TOWER 118.3 122.5R 278Tx GND CON 121.7

RADAR SERVICES: (BCN)
APP CON 124.0 120.7 122.5R 110.0T 109.9T
DEP CON 121.0
TFC INFO Ctc APP CON on 119.8
ASR Rnwy 1 Ceil 600 Vsby 1 1/2 mi Min Alt 1160.
Rnwy 7 Ceil 700 Vsby 1 1/2 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 1/2 mi Min Alt 960
Rnwy 28 Ceil 800 Vsby 1 1/2 mi Min Alt 1360
ILS 109.5 I-ROC Apch Brg 277° BC unusable
REMARKS: IFF svc avbl.

ENECTADY COUNTY *IFR* 2 N (GVI RBn on Fld)
378 H70/4-22 (3) (S-50, T , TT) BL4, 6 S5
FS, JP4, 5 U2 FSS: ALBANY (DL)
REMARKS: Lgts prior req after 0300Z. First 100 ft apch end rnwy 10 not vis fm ctl twr. Rnwy 28, 15 and 33 apchs rest by trees -glide angle 1 to 1.
TOWER[1] 126.2 121.3 3023.5R 356T
RADAR SERVICES:
ALBANY APP CON 125.0 124.7 122.5R 109.5R
ALBANY DEP CON 125.2
VHF/DF available, contact tower.
REMARKS:[1] Oper 1100-0300Z

ACUSE
ANCOCK *IFR* 4 NE (131° 4.7 NM from SYR VOR)
421 H90/10-28 (3) (S-120, T-190, TT-350) BL4, 6, 8 S5
FS, JP4 RVV: Rnwy 28 FSS: SYRACUSE on Fld
REMARKS: Ctn-const vic txwys. Rnwy 6-24 limited to acft 12,500 lbs GWT or less.
SYRACUSE TOWER 126.2 122.5R 119.9
SYRACUSE GND CON 121.7
SYRACUSE APP CON 126.2 122.5R 120.3 117.0T
109.9T 350T
ILS 109.9 I-SYR Apch Brg 278°

CA
EIDA COUNTY *IFR* 7 NW (318° 11.6NM from UCA VOR)
742 H60/15-33 (2) (S-60, T-80, TT) BL4, 6, 8 S5 F2
J2 FSS: UTICA on Fld
REMARKS: Rgt tfc rnwy 9 & 15.
JTICA TOWER 118.1 122.5R 109.3T
UTICA GND CON 121.9
RADAR SERVICES: (BCN)
GRIFFISS APP CON 118.5 134.1 122.5R
GRIFFISS DEP CON 120.9
LS 109.3 I-UCA Apch Brg 329°

E PLAINS
STCHESTER COUNTY *IFR* 3 NE (162° 4.8 NM from HP LOM)
39 H65/16-34 (3) (S-60, T-220, TT) BL4, 8 S5
S, JP5 U2 FSS: TETERBORO (LC TW 85256)
REMARKS: Rnwy 12 & 30 apchs rest by trees-glide angle 1 to 1. Rnwys 5 clsd ngt lndgs and open for ngt tkofs, Rnwy 23 clsd for ngt tkofs and open for ngt lndgs. Fee. Due non-vsby some areas of fld ctc twr for instr.
OWER 119.7 126.2 122.5R 109.7T 3023.5Rx
GND CON 121.9
APP CON 121.2 122.5R 109.7T 3023.5Rx
LS 109.7 I-HPN Apch Brg 162° BC unusable

NORTH CAROLINA

ASHEVILLE MUNI *IFR* 9 S (160° 5.8 NM from ABN RBn)
2161 H65/16-34 (1) (S-24, T-75, TT-125) BL6, 8 S5
FS, JP1, 4 U2 VASI: Rnwy 16 RVV: Rnwy 34
FSS: GREER (LC 684-4401)
REMARKS: Rgt tfc NW.
TOWER 121.1 122.5R GND CON 121.9
APP CON 123.6 122.5R
ILS 110.5 I-AVL Apch Brg 342°

CHARLOTTE
DOUGLAS FIELD *IFR* 4 W (CLT VOR on Fld)
748 H75/5-23 (2) (S-110, T , TT) BL4, 6, 8 S5
FS, JP1 U2 RVR: Rnwy 5 FSS: HICKORY (LC ED 2-7262)
REMARKS: CTN-Constr Extension S end rnwy 18-36. Rnwy 5-23 constr in progress ctc twr for instr due periodic rest.
CHARLOTTE TOWER 118.1 126.2 124.0 122.5R
109.5T
CHARLOTTE GND CON 121.9
RADAR SERVICES:
CHARLOTTE APP CON 120.5 126.2 122.5R 119.0
109.5T
CHARLOTTE DEP CON 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceiling 400 Vsby 1 Mi
Min Alt 1148
ILS 109.5 I-CLT Apch Brg 050° BC unusable
REMARKS: [1]On apch, maint 1300 or abv til 2.5 mi fm apch end of rnwy 23 on final.
VOT: 112.0

FAYETTEVILLE
GRANNIS FIELD *IFR* 3 S (FAY VOR on Fld)
189 H50/3-21 (2) (S-64, T-120, TT-200) BL4, 6 S5
F4, JP4 FSS: FAYETTEVILLE on Fld
REMARKS: Rnwy 16 & 34 apch rest by trees -glide angle 0 to 1. Ctn-practice lndgs and tkofs by mil acft.
FAYETTEVILLE TOWER 118.3 122.5R
FAYETTEVILLE GND CON 121.7
RADAR SERVICES: (BCN)
FAYETTEVILLE APP CON[1] 120.6
FAYETTEVILLE DEP CON 120.4
ILS 110.5 I-GRA Apch Brg 034° BC unusable
REMARKS: [1]IFF/SIF svc avbl.

GREENSBORO-HIGH POINT *IFR* 7 W (030° 3 NM from GSO VOR)
927 H64/14-32 (2) (S-40, T-55, TT) BL4, 6, 8 S5
F4, JP5 U2 RVV: Rnwy 14 FSS: RALEIGH (LC BR 56341)
REMARKS: Rnwy 5-23 and NE-SW txwy clsd due const until aprx Dec 64.
GREENSBORO TOWER 119.1 126.2 122.5R 109.9T
GREENSBORO GND CON 121.9
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 116.2T
109.9T GREENSBORO DEP CON 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1327
ILS 109.9 I-GSO Apch Brg 138°

RALEIGH-DURHAM *IFR* 9 NW (RDU VOR on Fld)
435 H75/5-23 (3) (S-90, T-135, TT-300) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 5 FSS: RALEIGH on Fld
REMARKS: No signal btn SS-SR indc gnd vsby of less than 2.6 NM and/or ceil less than 1000 ft, rnwy 14-32 and all 50 ft txwys lmtd to 50,000 lbs GWT

TOWER 119.3 126.2 122.5R 109.5T GND CON 121.9
RADAR SERVICES: (BCN)
RALEIGH APP CON[1] 125.3 122.5R 120.6
TFC INFO Inbnd acft ctc APP CON 25 mi out on 125.3.
RALEIGH DEP CON 120.6 124.8
ILS 109.5 I-RDU Apch Brg 049°
REMARKS: [1]IFF/SIF

WILMINGTON

NEW HANOVER CO *IFR* 2 NE (201° 5 NM from ILM VOR)
31 H70/16-34 (3) (S-120, T , TT) BL4, 6, 8 S5
F5, J P5 FSS: NEW BERN (LC ME7-2080)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Helicopters lndg & tkof-ctn to avoid 55' unlgtd power lines W fm ctc twr to arpt bndry. Rnwy 9-27 clsd to ngt lndgs. Ctc twr for taxi instr.
WILMINGTON TOWER 119.9 123.6 122.5R 110.3T 388T
CLRNC DEL 121.9
WILMINGTON GND CON 121.9
WILMINGTON APP CON 119.9 122.5R 110.3T 388T
ILS 110.3 I-ILM Apch Brg 343° BC unusable

WINSTON-SALEM

SMITH REYNOLDS *IFR* 2 NE (328° 3.9 NM from IN LOM)
969 H66/15-33 (3) (S-45, T-60, TT) BL4, 6, 8 S5
F5, J P5 U2 RVV: Rnwy 33
FSS: WINSTON SALEM (LC PA51731)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. No ngt lndgs or tkofs rnwy 9-27. Rnwy lgts 15-33 oper 11PM-7AM only. Pilot req to avoid area btn 2PM and 4PM.
WINSTON-SALEM TOWER 118.7 126.2 122.7R 278T
WINSTON-SALEM GND CON 121.7
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 109.9T
GREENSBORO DEP CON 124.6
ILS 110.3 I-INT Apch Brg 328° BC unusable
REMARKS: [1]Oper 1200-0400Z

NORTH DAKOTA

BISMARCK MUNI *IFR* 2 SE (272° 3.6 NM from BIS VOR)
1653 H69/12-30 (3) (S-90, T-120, TT) BL4, 6, 8 S5
F4 RVV: Rnwy 30 FSS: BISMARCK on Fld
REMARKS: Rnwy 17-35 clsd ngts. Rnwys 17-35, 2-20 and E-W txwy rest to acft over 26,000 lbs except when auth by twr. First 800' rnwy 12 clsd to lndg acft. Rnwy 8-26 desig txwy, may be used O/R as rnwy.
TOWER 118.3 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.3
ILS 110.3 I-BIS Apch Brg 306°

FARGO

HECTOR FIELD *IFR* 2 NW (171° 4.6 NM from FAR RBn)
900 H91/17-35 (3) (S-90, T-120, TT) BL4, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwys 17, 35 FSS: FARGO on Fld
FARGO TOWER 118.3 122.5R
FARGO GND CON 121.9
VFR ADV Ctc APP CON on 125.8mc 25 mi out.
FARGO APP CON 125.8 110.3T 365T
ILS 110.3 I-FAR Apch Brg 351°

OHIO

AKRON MUNI *IFR* Adj SE (255° 12.4 NM from ACO VOR) AC
1059 H53/7-25 (4) BL4, 6 S5 F5, JP1
FSS: AKRON on Fl
REMARKS: Poles E. Obstns lgt inop SE hill apch rnwy 32
TOWER 120.1 122.7 110.9T 362T
GND CON 121.7
RADAR SERVICES:
AKRON-CANTON APP CON 125.5 126.2 122.5R 109.5
AKRON-CANTON DEP CON 118.6
ILS 110.9 I-AKR Apch Brg 246°

AKRON-CANTON *IFR* 10 SE (227° 15.4 NM from ACO VOR)
1228 H56/1-19 (4) (S-84, T-108, TT-168) BL4, 6, 8, 11 S
F5, JP1 RVV: Rnwy 1 REIL: Rnwy 23 FSS: AKRON
REMARKS: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc pat Akron Muni arpt. Due non-vsby some areas field, ctc twr.
TOWER 126.2 122.5R 118.3 109.5T
GND CON 121.9
RADAR SERVICES:
APP CON 125.5 126.2 122.5R 109.5T
DEP CON 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceiling 400 Vsby 1 mi Min Alt 1628
ILS 109.5 I-CAK Apch Brg 006°
REMARKS: VOT: 112.0

COVINGTON, KY (CINCINNATI, OHIO)

GREATER CINCINNATI *IFR* 9 SW Cincinnati (043° 2.3 NM fm CVG VOR)
890 H86/18-36 (3) (S-120, T-200, TT-345) BL4, 6, 8 S5
F5 FSS: CINCINNATI on F
REMARKS: Rnwy 4-22 clsd to acft over 30,000 lbs. Fog & non-visibility some areas field, ctc twr.
CINCINNATI TOWER 118.3 126.2 122.7R 317T
CLRNC DEL 121.3
CINCINNATI GND CON 121.7
RADAR SERVICES:
CINCINNATI APP CON 124.7 126.2 122.7R 119.7 112.9T CINCINNATI DEP CON 121.0
ASR Rnwys 4, 9, 18, 36 Ceiling 400 Vis 1 mi Min Alt 1290. Rnwys 22, 27 Ceiling 700 Vis 1 mi Min Alt 1592
ILS 109.9 I-CVG Apch Brng 360° 110.9 I-SIC Apch Brng 180°
VHF/DF available, contact tower
REMARKS: VOT: 112.0

CINCINNATI MUN-LUNKEN FLD *IFR* 3 SE (227° 4.4 NM fm LUK Rng.)
488 H51/6-24 (3) (Max-45) BL4, 8 S5 F4, JP4 U2
FSS: CINCINNATI (LC 321-7
REMARKS: Due non-vis some areas of fld ctc twr. Const in progress.
LUNKEN TOWER 126.2 122.5R 118.7 366T
LUNKEN GND CON 121.9
RADAR SERVICES:
CINCINNATI APP CON 119.7 126.2 124.7 122.7R 112.9T CINCINNATI DEP CON 121.0

VELAND

IRKE LAKEFRONT Adj N (069° 23.6 NM from CLE VOR)
584 H52/6-24 (1) (S-31, T-37, TT-55) BL6 S5 F4, JP1
U2 FSS: CLEVELAND (DL)
REMARKS: Fee. Hvy concentration of Cleveland Hopkins IFR tfc being vectored and descending below 2000' MSL vcnty stadium rdo bcn, lctd aprxly 2 mi SW. Const in progress.
LAKEFRONT TOWER[3] 126.2 122.5R 120.9
LAKEFRONT GND CON 121.9
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 1200-0400Z

/ELAND-HOPKINS 9 SW (015° 4.5 NM from STG VOR) AOE
'92 H90/5R-23L (5) (S-54, T-78, T-126)* BL4, 6, 8A, 10
5 FS, JP1, 4 U2 VASI: Rwy 23R RVR: Rnwy 5R
FSS: CLEVELAND on Fld
REMARKS: *(S-125, T-188, TT-338) avbl rnwy 9-27. Due non vis some areas of fld, ctc twr.
CLEVELAND TOWER 119.9 126.2 122.7R
CLRNC DEL 127.4
CLEVELAND GND CON 121.7
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2] 110.7T
109.9T CLEVELAND DEP CON 121.0
PAR Rnwy 5L Ceiling 300 Vsby ½ mi Min Alt 1092
ASR Rnwys 5R, 5L, 9, 18R, 18L, 23R, 23L, 27, 36R, 36L Ceiling 500 Vsby 1½ mi Min Alt 1292
LS 109.9 I-CLE Apch Brng 054° 110.7 I-CEE Apch Brng 277°
HF/DF available, contact tower
REMARKS: [1]270°-089° [2]090°-269°
/OT: 110.4

IMBUS MUNI *IFR* 6 E (276° 5.4 NM from CM LOM)
16 H107/10R-28L (5) (S-100, T-200, TT-370)* BL4, 6, 8, 11
5 F5, JP1, 4 U2 RVV: Rnwy 10L
EIL: Rnwys 10R, 28R FSS: COLUMBUS on Fld
EMARKS: *(S-180, T-200, TT-400) avbl rnwy 10L-28R. Due non-vsby some areas of fld, ctc twr.
OWER 126.2 121.1 109.1T 3023.5R
CLRNC DEL 121.3 GND CON 121.9
ADAR SERVICES:
PP CON 119.0 126.2 125.4 122.5R 109.5T
3023.5R DEP CON 120.5 126.2
ASR Rnwys 10R, 10L, 13, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316. Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416
-S 109.1 I-CBP Apch Brg 096° 109.5 I-CMH Apch Brg 276°
HF/DF available, contact tower
OT: 111.0

ON

IES M COX-DAYTON MUNI *IFR* 9 N (236° 3.9 NM from TPC Bn.)
)08 H70/6-24 (2) (S-120, T-180, TT-400) BL4, 6, 8 S5
5, JP1 U2 RVV: Rnwy 6 FSS: DAYTON on Fld
EMARKS: P-line SE. Due non-vsby some areas of fld ctc twr.
AYTON TOWER 119.5 126.2 122.5R
CLRNC DEL 125.2
DAYTON GND CON 121.9
RADAR SERVICES: (BCN)
DAYTON APP CON 118.0 122.7R 111.6T 110.3T
DAYTON DEP CON 119.9
ILS 110.3 I-DAY Apch Brg 056°
VOT: 111.0

MANSFIELD MUNI 3 N (131° 4.1 NM from MFD VOR)
1296 H68/14-32 (2) (S-75, T-100, T-) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 32 FSS: MANSFIELD on Fld
REMARKS: Due non-vsby some areas field, ctc twr. Occasional jet barrier placed on rnwy 5-23 in raised position for tmpry periods; takeoff or lndg civil acft using rnwy with raised barrier will be at pilots discretion.
TOWER 119.3 122.5R 110.5T GND CON 121.9
APP CON 124.7 122.5R 110.5T 108.8T
ILS 110.5 I-MFD Apch Brg 320°

SPRINGFIELD MUNI *IFR* 5 S (237° 2.6 NM from SGH RBn)
1049 H90/5-23 (3) (S-190, T-200, TT-380) BL4 S5
F4, JP4 U2 FSS: DAYTON (LC FA 24562)
REMARKS: Ctn-jet acft make initial apch at 2500 ft MSL. J-bar both ends rnwy 5-23 ctl by twr. All IFR tfc ctc DAY apch ctl for lndg. Ctn-const vic rnwys.
TOWER [1]120.7 126.2 GND CON 121.7
RADAR SERVICES: (BCN)
DAYTON APP CON [1]118.4 DAYTON DEP CON 118.4 134.1
REMARKS: [1]All IFR tfc lndg this area call DAYTON APP CON. [2]Oper 1245-2130Z dly clsd hol.

TOLEDO, EXPRESS *IFR* 9 SW (320° 10.5 NM from VWV VOR)
684 H87/7-25 (2) (S-107, T-163, TT-287) BL4, 6 S5
F5, JP4 U2 RVV: Rnwy 7 FSS: FINDLAY (LC 242-4171)
REMARKS: Ctn-birds vic arpt. Due non-vsby some areas of fld ctc twr for instr. Twr ctld a-gear both ends overrun 500 ft outward of threshold rnwy 7-25. Acft following Ohio T-pike in vic W of Toledo to Express Arpt ctn to be a alert for acft making ILS back cks arr and dep, tfc including jets. T-pike crosses apch at E & N edge of arpt. Jet acft make initial lndg apch at 2500 ft MSL in this area.
TOLEDO TOWER 118.1 126.2 122.5R 109.7T
TOLEDO GND CON 121.9
RADAR SERVICES: (BCN)
TOLEDO APP CON 123.8 128.0 122.5R 113.1T
109.7T TOLEDO DEP CON 119.2
ASR Rnwys 7, 16, 25, 34 Ceiling 400 Vsby 1 mi Min Alt 1084
ILS 109.7 I-TOL Apch Brg 069°
REMARKS: IFF/SIF svc avbl.

WILLOUGHBY

LOST NATION *IFR* 2 N (LNN RBn on field)
626 H50/9-27 (3) BL4 S5 F4, JP4
FSS: CLEVELAND (DL)
REMARKS: Fee. Rnwy 9, 27 and 36 rest by poleline - glide angle 4 to 1 and less.
TOWER[3] 120.7 122.5R
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 0230-1430Z

YOUNGSTOWN MUNI *IFR* 10 N (183° 4.1 NM from YNG VOR)
1196 H75/14-32 (3) (S-116, T-160, TT-270) BL4, 6, 8 S5
F4 U2 RVV: Rnwy 32 FSS: YOUNGSTOWN on Fld

REMARKS: Ctn-const rnwy 18-36 until aprx Apr 65, use for taxi only. Due non-vsby some areas of fld ctc twr for instr. Acft must park or tie down on ramp areas. Rnwy 5 apch rest by brush-glide angle 1 to 1.
TOWER 119.5 126.2 122.5R GND CON 121.9
APP CON 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320°
VHF/DF available, contact tower.

OKLAHOMA

MUSKOGEE
DAVIS FLD *IFR* 6 S (MKO RBn on field)
610 H72/13-31 (2) (S-60, T-160, TT-) BL6, 8
FSS: TULSA (DL)
TOWER[1] 119.2 126.2
REMARKS: [1]1430-2230Z

OKLAHOMA CITY
WILEY POST *IFR* 7 NW (040° 8.1 NM from OKC VOR
1303 H54/17-35 (2) BL4 S5 F4, JP4 U2
FSS: OKLAHOMA CITY (DL)
REMARKS: Rgt tfc rnwys 12 and 19.
TOWER[1] 119.7 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5
OKLAHOMA CITY DEP CON 121.1
REMARKS: [1]Oper 1200-0400Z.

OKLAHOMA CITY
WILL ROGERS WORLD *IFR* 6 SW (097° 8.1 NM from OKC VOR)
1284 H98/17-35 (3) (S-120, T-160, TT) BL4, 6, 8 S5
F5, JP1, 4 U2 VASI: Rnwy 17 RVV: Rnwy 35
FSS: OKLAHOMA CITY on Fld
REMARKS: Rnwy 3-21 and txwy (C-1) W side rnwy 3 rest to 15000 lbs or less.
TOWER 118.3 126.2R 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5 OKLAHOMA CITY DEP CON 121.1
ASR Rnwy 17, 35 Ceiling 400 Vsby 1 mi Min Alt 1684
ILS 109.9 I-OKC Apch Brg 350°
REMARKS: IFF svc avbl.
VOT: 108.8

TULSA INTL *IFR* 5 NE (259° 4.3 NM from TUL VOR)
674 H100/17L-35R (5) (S-200, T-200, TT-400) BL4, 6, 8
S5 F5, JP1, 4 U2 VASI: Rwy 17L RVR: Rnwy 35R
FSS: TULSA on Fld
REMARKS: Rgt tfc rnwys 17 R, 21R. Rnwy 35L thsld displcd 510', 3690' aval for tkof.
TOWER 118.7 126.2 122.5R
CLRNC DEL 124.0 GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1 122.5R 110.3T DEP CON 120.7
TFC INFO Ctc APP CON on 119.1
ASR Rnwys 17L, 26[1], 35R Ceiling 400 Vsby 1 mi
Min Alt 1074
ILS 109.7 I-DWE Apch Brg 174° 110.3 I-TUL Apch Brg 3 4° BC unusable
REMARKS: [1]500-1 required when apch is made until psn is estab over 910 stack 3 mi E. IFF/SIF svc avbl.

OREGON

EUGENE
MAHLON-SWEET FLD *IFR* 7 NW (EUG VOR on field)
365 H55/16-34 (2) (S-80, T-120, TT-190) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 16 FSS: EUGENE or F
REMARKS: CTN-birds vic arpt. Rnwy lgts on req thru FSS.
EUGENE TOWER 118.9 122.5R
EUGENE GND CON 121.9
ILS 109.5 I-EUG Apch Brg 159°

KLAMATH FALLS
KINGSLEY FLD *IFR* 4 SE (LMT VOR on Fld)
4092 H103/14-32 (3) (S-75, T-100, TT) BL4, 6, 8 S5
F4, JP1 U2 FSS: KLAMATH FALLS c-
REMARKS: Due non-vsby some areas of fld ctc twr for ...
Hvy jet tfc rnwy 14-32.
TOWER 118.5 126.2 122.5R 269T
GND CON 121.9
KLAMATH APP CON 118.5 126.2 122.5R 115.9T
242T
ILS 109.5 I-LMT Apch Brg 318°
REMARKS: IFF/SIF svc avbl.

MEDFORD MUNI *IFR* 2 N (145° 6.3 NM from MFR VOR)
1330 H54/14-32 (2) (S-65, T-90, TT-150) BL4, 6, 8 S5
F4, JP4, 5 U2 RVV: Rnwy 14 FSS: MEDFORD or
TOWER 118.3 126.2 122.5R 119.8 278T
GND CON 121.9
APP CON 118.3 126.2 122.5R 278T 263T
ILS 110.3 I-MFR Apch Brg 139°
VHF/DF available, contact tower.

PENDLETON MUNI *IFR* 2 NW (071° 3.6 NM from PDT VOR)
1493 H63/7L-25R (4) (S-75, T-100, TT-) BL4, 6, 8 S5
F4 U2 RVV: Rnwy 25 FSS: PENDLETON c-
REMARKS: Rnwy 25L threshold displaced 821' W. 202[3] - avbl lndg rnwy 25L, 7R-25L daylite operns only lgt p ...es
TOWER 118.7 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.7 114.7T 3023.5Rx 341T
ILS 110.3 I-PDT Apch Brg 250°

PORTLAND INTL *IFR* 4 NE (159° 9.2 NM from PDX VOR)
23 H88/10R-28L (3) (S-200, T-200, TT-400) BL4, 6 S...
S5 F5, JP4 U2 RVV: Rnwy 28R RVR: Rnwy 10R
FSS: PORTLAND ...
REMARKS: Ctn-birds vic arpt. Jet barrier rnwy 10R emgcy use only.
TOWER 118.7 126.2 122.7R CLRNC DEL 119.0
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1[2] 126.2 122.5R 119.8[3] 109.9T
DEP CON 124.9
TFC INFO Ctc APP CON
PAR Rnwy 10R Ceiling 200 Vsby ½ mi Min Alt 223
ASR Rnwys 10R[1], 28R Ceiling 700 Vsby 1 mi Min Alt 723
ILS 109.9 I-PDX Apch Brg 098° BC rcstd 111.3 I-... Apch Brg 278°
VHF/DF available, contact tower.
REMARKS: [1]Min alt over 3-mi radar fix inbnd on final. [2]North [3]South
VOT: 111.0

EM-MCNARY FLD *IFR* 1 SE (309° 4 NM from SL LOM)
207 H50 13-31 (2) (S-66, T-88, TT-75) BL4, 6 S5 F4
J1 RVV: Rnwy 31 FSS: PORTLAND (DL)
REMARKS: Industrial acft oper fm sod area W of rnwy 16-34, these acft use rgt ptn when tfc S, left ptn when N. Rnwy 31 designated calm wind rnwy. Rnwy 16-34 unlgtd clsd daily fm 30 mins before SS til 30 mins after SR and when wea is blo VFR mins.
ILS 110.3 I-SLE Apch Brg 309°

UTDALE Adj NW (124° 13.6 from PDX VOR)
36 H46/7-25 (1) (Max-10) BL4 S5 F4 U2
RVV: Rnwy 7 FSS: PORTLAND (DL)
REMARKS: Rnwy 7 threshold displaced 400 ft E. 4241 ft avbl lndg rnwy 7. Rnwy 25 threshold displaced 500 ft W. 4141 ft avbl lndg rnwy 25.
TOWER 120.5 122.5R GND CON 121.7

PENNSYLVANIA

ENTOWN-BETHLEHEM-EASTON *IFR* 3 NE (180° 4.1 NM from ABE VOR)
388 H62/6-24 (4) (S55, T-76, TT-125) BL4, 6, 8 S5 F5
U2 RVV: Rnwy 6 FSS: ALLENTOWN on Fld
REMARKS: 5210' avbl lndg rnwy 24. Rnwy 14-32 open for ngt opern 2415' btn threshold lgts plus 175' of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
ALLENTOWN TOWER 120.5 122.5R 233T
CLRNC DEL 121.9
ALLENTOWN GND CON 121.9
ALLENTOWN APP CON 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061°

IRT ERIE *IFR* 5 SW (059° 6 NM from ERI VOR)
732 H50/6-24 (3) (S-65, T-102, TT-190) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 24 FSS: ERIE on Fld
TOWER 118.1 122.5R 110.3T 278T GND CON 121.9
APP CON 119.0 122.5R 110.3T
LS 110.3 I-ERI Apch Brg 059° BC unusable

RISBURG-YORK STATE *IFR* 3 S (108° 7.5 NM from HAR VOR)
147 H50/8-26 (3) (S-65, T-105, TT-185) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 8 FSS: HARRISBURG on Fld
REMARKS: Portions of fld not visible from twr. Transient acft load and unload at gates 3-4 for 3 min stop only. Rnwy 8 blkd. Rgt tfc rnwys 20 & 26. wt limit 130,000 lbs.
HARRISBURG TOWER 119.5 126.2 122.5R 118.8 109.1T
HARRISBURG GND CON 121.9
HARRISBURG APP CON 120.9 126.2 122.5R 109.1T
HARRISBURG DEP CON 118.8
ASR Rnwys 8, 30 Ceiling 1100 Vsby 2 mi Min Alt 1447. Rnwy 26 Ceiling 600 Vsby 1½ mi Min Alt 947
LS 109.1 I-HAR Apch Brg 079° BC unusable

ADELPHIA
RTH PHILADELPHIA *IFR* 10 NE (PNE VOR on FLD)
20 H50/6-24 (2) (Max-30) BL4, 8 S5 F4, JP1 U2
FSS: PHILADELPHIA on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Rnwy 6 apch rest by poleline.
TOWER 121.3 126.2 122.5R 112.0T
GND CON 121.9

RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089° [2]090°-269°

PHILADELPHIA INTL *IFR* 5 SW (085° 5.9 NM from PH LOM)
14 H95/9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A S5
F5, JP1, 4, 5 U2 RVR: Rnwy 9
FSS: PHILADELPHIA (DL)
REMARKS: Use rnwy 9 calm wind. Due non-vsby some areas of fld ctc twr for instr. Ctn-birds-vic arpt. Lndg rnwy 17 large fix-wing acft small maint tfc ptn alt of 1500 ft agl until maneuvering for a safe lndg rqrs further dscnt. Dep rnwy 35 clb as rapidly as practicable to at least 1500 ft agl, practice lndgs and tkofs by jet acft only permitted btn hrs of 7AM-11PM and only after prior apvl by Div of Avia. Rnwy 22 & 27 apch rest by fence-glide angle 1 to 1. Ctn-const vic rnwy 27.
TOWER 118.5 122.7R CLRNC DEL 127.7
GND CON 121.9
RADAR SERVICES:
APP CON 127.2[1] 123.8[2] 122.7R
DEP CON 119.0[1] 128.55[2]
PAR Rnwy 9 Ceiling 200 Vsby ½ mi Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceiling 500 Vsby 1 mi Min Alt 514
ILS 109.3 I-PHL Apch Brg 085° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°
VOT: 111.0

PITTSBURGH
ALLEGHENY COUNTY *IFR* 4 S (052° 6.4 NM from PIT VOR)
1252 H55/9-27 (3) (S-70, T-120, TT-210) BL 6, 8, 11 S5
F5, JP5 U2 REIL: Rnwy 9 FSS: PITTSBURGH on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. also apch to rnwy 5 ctc twr.
TOWER 121.1 126.2 122.5R 109.1T GND CON 121.7
RADAR SERVICES:
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.7[2]
PITTSBURGH DEP CON 125.9
ILS 109.1 I-AGC Apch brg 275° BC unusable
REMARKS: [1]270°-089° [2]090°-269°

GREATER PITTSBURGH *IFR* 12 NW (IRL VOR on FLD)
1203 H105/10L-28R (4) (S-120, T-200, TT-400)
BL4, 6, 8A, 10, 14, 15 S5 F5, JP1, 4 VASI: Rnwy 28L
RVR: Rnwy 10L FSS: PITTSBURGH (DL)
REMARKS: Fee. Steep drop-off apch end rnwy 28. Rnwy 14-32 & txwy clsd until Jan 1965. Rnwy 28L threshold displaced 491 ft W. 7509 ft avbl lndg rnwy 28L. US Customs lndg rts arpt. Due non-vsby some areas of fld ctc twr for instr.
PITTSBURGH TOWER 119.1 126.2 122.7R 110.3T 302T
CLRNC DEL 121.3 PITTSBURGH GND CON 121.9
RADAR SERVICES: (BCN)
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.7[2]
PITTSBURGH DEP CON 125.9
TFC INFO Ctc Radar APP CON on 123.6 when approaching fm NW & NE, and on 118.7 fm SE & SW.
PAR Rnwy 28L Ceiling 200 Vsby ½ mi Min Alt 1403
ASR Rnwys 5, 10R, 14, 23, 28R, 28L, 32 Ceil 500 Vsby 1 mi Min Alt 1703. Rnwy 10L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° 111.7 I-LXB Apch Brg 097° BC unusable

VHF/DF available, contact tower.
REMARKS: 270°-089° [2]090°-269°. IFF svc avbl.
VOT: 111.2

READING
GENERAL SPAATZ FIELD *IFR* 2 NW (001° 3.9 NM from RD LOM)
343 H51/18-36 (3) (S-30, T-45, TT-175) BL4, 6, 7 S5
F4, JP4 U2 FSS: HARRISBURG (DL)
REMARKS: Due non-vsby some areas of fld ctc for instr. Rgt tfc rnwy 5, 13 and 36. When dep rnwy 31 make 20° left turn as soon as practicable. Ctn-constr vic trml aprch and rnwy 5.
READING TOWER 119.9 126.2 122.5R 109.5R
READING GND CON 121.9
READING APP CON 119.9 126.2 122.5R 109.5T
ILS 109.5 I-RDG Apch Brg 001° BC unusable
VHF/DF available, contact tower.

WILKES-BARRE-SCRANTON *IFR* 9 NE (043° 3.9 NM from AV LOM)
956 H52/4-22 (3) (S-90, T-145, TT-240) BL4, 6, 8
F5, JP4 RVV: Rnwy 4 FSS: WILKES-BARRE on Fld
REMARKS: Rnwy 16-34 clsd Mon-Fri 7 AM to 5 PM ufn. Ctn-deer on rnwys. Due non-vsby some areas of fld ctc twr for instr. Rgt tfc rnwys 10, 16, 22, 28. No signal to indicate day or ngt gnd vis of less than 3 mi and/or ceil less than 1000 ft. Lndg fee except for pvt owned acft.
FAA DEP PROC: Rnwy 16, 22 Right hand tfc pattern.
WILKES-BARRE TOWER 120.1 122.5R 109.9T
WILKES-BARRE GND CON 121.9
RADAR SERVICES:
WILKES-BARRE APP CON 124.5 122.5R 120.1 109.9T
WILKES-BARRE DEP CON 126.3
ASR Rnwy 4 Ceil 1000 Vsby 2 mi Min Alt 1956. Rnwy 10 Ceil 900 Vsby 1½ mi Min Alt 1856. Rnwy 22 Ceil 800 Vsby 1½ mi Min Alt 1756
ILS 109.9 I-AVP Apch Brg 043° BC Unusable

WILLIAMSPORT-LYCOMING CO *IFR* 4 E (285° 6.1 NM from IP RNG)
528 H50/9-27 (3) (S-44, T-70, TT-110) BL4, 6, 8 S5
F4, JP1 FSS: WILLIAMSPORT on Fld
REMARKS: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 8000 lbs and under. Rgt tfc rnwy 33, 27, 30. Rnwy 27 apch rest by pole -glide angle 7 to 1. Rnwy 15 apch rest by poleline -glide angle 1 to 1. Due non-vsby some areas of fld ctc twr for instr.
WILLIAMSPORT TOWER 119.1 122.5R
WILLIAMSPORT GND CON 121.9
WILLIAMSPORT APP CON 124.9 122.5R
ILS 110.1 I-IPT Apch Brg 266° BC Unusable

RHODE ISLAND

PROVIDENCE
GREEN *IFR* 6 S (PVD VOR on fld)
56 H54/5R-23L (4) (S-90, T , TT) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 5R FSS: PROVIDENCE on Fld
REMARKS: Fee. Air taxi, charter. No multi engine lndgs 5L, no tkofs 23R.
TOWER 118.7 126.2 122.5R 109.3T 368T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.3 I-PVD Apch Brg 046° BC Unusable

SOUTH CAROLINA

CHARLESTON AFB/MUNI *IFR* 9 NW (CHS VOR on fld)
45 H90/15-33 (2) (S-50, T-155, TT-305) BL4, 6, 8 S5
F5, JP5 U2 VASI: Rnwys 15, 21, & 33
RVR: Rnwy 15 FSS: CHARLESTON AFB
REMARKS: Possibility of extreme wake turbulence in tfc pattern. Jet barrier and arresting cable on rnwy 15-33 cable is 4" above rnway, does not effect acft rolling over it.
TOWER 126.2 122.5R 121.0 113.5T 109.7T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
APP CON 119.3 118.5 113.5T 109.7T 278T
DEP CON 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt
ILS 109.7 I-CHS Apch Brg 149° BC Unusable
REMARKS: IFF/SIF svc avbl
VOT: 111.0

COLUMBIA *IFR* 5 SW (331° 5.7 NM from CAE VOR)
211 H50/5-23 (1) (S-80, T-105, TT) BL6, 8 S5 F5 J
U2 FSS: FLORENCE
TOWER 126.2 122.5R 119.5 110.3T
GND CON 121.9
APP CON 118.2 122.5R 114.7T 110.3T
RADAR SERVICES:
ILS 110.3 I-CAE Apch Brg 046° BC Unusable

OWENS FIELD 1 SE (024° 8 NM from CAE VOR)
203 H36/15-33 (2) (S-150) L4 F4 U1 FSS: FLORENCE
REMARKS: Rgt tfc SE, NE. Clsd ngts to transient civ acft unlgtd obstns. Ctn-lndg & tkof at all times. Rnwy 33 apch rest by poleline-glide angle 5 to 1. Rnwy 15 & 25 apch rest by roads-glide angle 0 to 1. Rnwy 7 apch rest by poleline-glide angle 0 to 1.
TOWER[1] 126.2
COLUMBIA APP CON 118.2 122.5R 110.3T 227T
REMARKS: [1]Oper 1200-2400Z daily. Adv svc other hrs.

GREENVILLE MUNI DOWNTOWN *IFR* 2 E (002° 3.6 NM from GR LOM)
1047 H54/18-36 (3) (S-40, T- , TT-) BL4, 6 S5
F4, JP1 U2 FSS: GREER (LC 2[illegible]
REMARKS: Rgt tfc mwys 18, 27, 23.
TOWER 119.9 126.2 122.5R 109.7T 391T
GND CON 121.9
RADAR SERVICES:
APP CON 118.0 126.2 124.3 122.5R 119.4 [illegible]
DEP CON 118.8
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 154[illegible]
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447
ILS 109.7 I-GRL Apch Brg 002° BC unusable

GREER
GREENVILLE-SPARTANBURG *IFR* 3 S (033° 5.2 NM from GS LOM)
961 H76/3-21 (1) (MAX-60) BL6, 8 S5 F5, JP5 U2
RVV: Rnwy 3 FSS: GREER AFFLD
REMARKS: Fee commercial only.

GREER TOWER 120.1 126.2 122.7R 115.7T 109.3T
209T
GREER GND CON 121.8
RADAR SERVICES:
GREENVILLE APP CON 118.0 126.2 124.3 122.5R
119.4 109.7T
GREENVILLE DEP CON 118.8
ILS 109.3 I-GSP Apch Brg 033°

RTANBURG DOWNTOWN MEMORIAL *IFR* 2 SW (195 6.9 NM from SPA VOR)
816 H52 4-22 (3) (S-30, T- , TT-) BL4, 6 SS
F5, JP1-5 FSS: GREER (LC 585-5470)
REMARKS: Unlgtd wind cone. Rnwy 11-29 unlgtd.
TOWER[1] 118.3 126.2 122.5R 317T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES:
GREENVILLE APP CON 124.3
GREENVILLE DEP CON 118.8
REMARKS: [1]Oper 1100-0300Z.

SOUTH DAKOTA

IX FALLS
)E FOSS FIELD *IFR* 2 NW (147° 4.1 NM from FSD VOR)
1428 H90/3-21 (3) (S-30, T-40, TT-) BL4, 6, 8 SS
F5, JP1 U2 RVV: Rnwys 3, 21 FSS: HURON on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Rnwy 9-27 rest of acft over 30,000 lbs, rnwy 3-21 & 15-33 rest to acft over 120,000 lbs. First 300 ft rnwy 27 perm clsd. Overhead apch alt 3000 ft MSL.
TOWER 118.3 122.5R GND CON 121.9
VFR ADV Ctc APP CON on 125.8 aprx 25 mi out
APP CON 125.8 122.5R 115.0T 109.9T 3023.5R
245T
ILS 109.9 I-FSD Apch Brg 026°

TENNESSEE

TOL
:I-CITY MUNI *IFR* 12 SW (224° 6 NM from TR LOM)
1519 H66/4-22 (2) (S-90, T-120, TT-190) BL6, 8 S5 F5, JP1 U2 RVV: Rnwy 22 FSS: TRI-CITY on Fld
REMARKS: Rnwy 9-27 rest to acft over 30,000 lbs GWT. Pilot of overwt acft obtain apvl arpt mgr prior to lndg. Due non-vsby some areas of fld ctc twr for instr.
TOWER 119.5 126.2 122.5R 114.6T 109.9T
GND CON 121.9
APP CON 125.7 126.2 122.5R 114.6T
DEP CON 119.5 126.2
:LS 109.9 I-TRI Apch Brg 224°

TTANOOGA
'VELL FIELD *IFR* 5 E (332° 4.9 NM from CHA VOR)
582 H62/1-19 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F5, JP4, 5 U2 VASI: Rnwy 1 RVV: Rnwy 19
FSS: CROSSVILLE (LC AM 7-5343)
REMARKS: CTN-const in progress. Due non-vsby some areas of fld ctc twr for instr. Transmissometer comsnd rnwy 19.
CHATTANOOGA TOWER 118.3 126.2 109.5T 278T
CHATTANOOGA GND CON 121.9
VFR ADV Ctc APP CON on 125.1 mc 25 mi out.
CHATTANOOGA APP CON 125.1 126.2 115.8T 109.5T
LS 109.5 I-CHA Apch Brg 196°

KNOXVILLE
McGHEE-TYSON *IFR* 11 S (221 6.6 NM from TYS VOR)
989 H90 4L-22R (3) (S-60, T-90, TT-200) BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 4L FSS: KNOXVILLE on Fld
REMARKS: Rgt tfc rnwys 4R & 22R. Due non-vsby some areas of fld ctc twr for instr. 1000 ft paved overrun each end rnwy 4L-22R. Ctn-birds vic arpt.
KNOXVILLE TOWER 118.7 126.2 122.5R 116.4T 110.3T
KNOXVILLE GND CON 121.9
RADAR SERVICES:
KNOXVILLE APP CON 123.9 122.5R 116.4T 110.3T
KNOXVILLE DEP CON 120.2
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389. Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 045°
VHF DF available, contact tower.
REMARKS: VOT: 112.0

MEMPHIS METROPOLITAN *IFR* 3 S (287° 3 NM from MEM VOR)
331 H89 17-35 (4) (S-100, T-200, TT-400) BL4, 6, 8A, 10, 15 SS F5, JP5 U2 VASI: Rnwy 27
RVR: Rnwy 9 FSS: MEMPHIS on Fld
REMARKS: Rnwys 3-21, 17-35 & 14-32 rest to 100,000 lbs GWT. Rnwy 9-27 rest to 50,000 lbs single wheel. 3816 ft avbl lndg & tkofs both direction rnwy 14-32. Ctc apch ctl for wind rnwy, tfc & notam info.
TOWER 126.2 122.5R 118.3 115.5T 109.5T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1[1] 126.2 125.8[2] 122.5R 115.5T
110.5T 109.5T DEP CON 119.7
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi
Min Alt 731
ILS 109.5 I-MEM Apch Brg 087° 110.5 I-TSE Apch Brg 354° BC unusable
VHF/DF available, contact tower
REMARKS: [1]South apch [2]North apch. IFF SIF svc avbl.
VOT: 111.0

NASHVILLE METROPOLITAN *IFR* 5 SE (312° 4.5 NM from BNA VOR)
597 H80/13-31 (3) (S-76, T-130, TT-220) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 2L FSS: NASHVILLE on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Rnwy 2R-20L clsd until Nov 64. Lgtd 95 ft crane (695 ft MSL) opern 1650 ft S of threshold and 1200 ft W of cntrline rnwy 2L-20R. 1700 ft N end of rnwy 2L-20R clsd. 6000 ft avbl dur daylgt hrs only. 6965 ft avbl with 15 mins notice under adverse conditions. 734 ft new const on N end of rnwy 2L-20R unusable.
BERRY TOWER 126.2 122.5R 119.1 109.9T
BERRY GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 120.6 122.5R 109.9T
DEP CON 123.7
TFC INFO Ctc APP CON on 120.6 25 mi out.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi
Min Alt 997
ILS 109.9 I-BNA Apch Brg 015°
VHF/DF available, contact tower
REMARKS: [1]Maint 1200 til 2 mi fm end of rnwy on final to rnwy 20R.
VOT: 111.0

TEXAS

ABILENE MUNI *IFR* 3 SE (102° 9.5 NM from ABI VOR)
1778 H60/17-35 (2) (MAX-30) BL4, 6, 8 S5 F4 U2
RVV: Rnwy 35 FSS: ABILENE on Fld
REMARKS: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35.
TOWER 126.2 122.7R 120.1 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.5 134.1 126.2 113.7T 110.3T 109.2T
DEP CON 125.0
ILS 110.3 I-ABI Apch Brg 350°

AMARILLO AFB/MUNI *IFR* 8 E (210° 4.5 NM from AMA VOR)
3607 H135/3-21 (2) (S-65, T-330, TT-470) BL6, 8 S5
F5, JP1 VASI: Rnwys 3, 21 RVV: Rnwys 3, 21
FSS: AMARILLO on Fld
REMARKS: Due non-vsby some areas of fld ltc twr for instr. 1000 ft emerg overruns ea end rnwy 3-21. Rgt tfc rnwy 3. Rectangular tfc ptn 5100 ft MSL. Overhead tfc ptn 5400 ft MSL. All acft over 12,500 lbs GWT ctc twr for instr TAXI on fld. Rnwy 13-31 lmtd to 33,000 lbs GWT.
TOWER 126.2 122.5R 118.3 GND CON 121.9
RADAR SERVICES:
APP CON 121.1 126.2 124.8 122.5R 117.2T 110.3T
DEP CON 119.5
TFC INFO Ctc APP CON 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4007.
Rnwys 13, 31 Ceil 500 Vsby 1 1/2 mi Min Alt 4107
ILS 110.3 I-AMA Apch Brg 035°
REMARKS: IFF/SIF svc avbl.

AUSTIN
MUELLER MUNI *IFR* 2 NE (175° 5.1 NM from AUS VOR)
631 H73/12R-30L (5) (S-30, T-40, TT-) BL4, 6, 8 S5
F5, JP5 U2 RVV: Rnwy 30L FSS: AUSTIN on Fld
REMARKS: Rgt rnwys 12R, 16R, 30R & 21. Rnwy 34L apch rest by trees-glide angle 0 to 1. Rnwy 12R threshold displaced 900 ft SE. 6400 ft avbl lndg rnwy 12R. Rnwy 16R threshold displaced 600 ft S. 4406 ft avbl lndg rnwy 16R. Ctn-avoid Bergstrom AFB tfc ptn. Ctc twr lndg vsby rnwy 12.
AUSTIN TOWER 118.3 126.2 122.5R 109.5T
AUSTIN GND CON 121.9
RADAR SERVICES: (BCN)
AUSTIN APP CON 124.9 125.1 122.7R 112.5T
AUSTIN DEP CON 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
ILS 109.5 I-AUS Apch Brg 305°

BEAUMONT
JEFFERSON CO *IFR* 9 SE (056° 4.6 NM from BPT VOR)
16 H57/11-29 (3) (S-50, T-65, TT-) BL4, 6, 8 S3
F4, JP1 U2 FSS: BEAUMONT on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
TOWER 119.5 122.5R GND CON 121.9
BEAUMONT APP CON 121.3 122.5R 114.9T
ILS 109.5 I-BPT Apch Brg 113°

BROWNSVILLE
RIO GRANDE VALLEY INTL *IFR* 4 E (242° 2.3 NM from BRO VOR) AOE
22 H57/13R-31L (6) (S-35, T-58, TT-108) BL4, 6, 7 S5
F5, JP1, 4 FSS: BROWNSVILLE on Fld
REMARKS: Rnwy 4-22 rest to 10,000 lbs or less. Rnwy lgts ar rep after 2400. CTN-constr vic fld. Rnwy 31L apch rest by brush-glide angle 0 to 1. Rnwy 31R apch rest by trees-glide angle 0 to 1. Rnwy 35R apch rest by trees-glide angle [illegible]
BROWNSVILLE TOWER 118.1 126.2 122.5R 278T
BROWNSVILLE GND CON 121.9
BROWNSVILLE APP CON 119.5 126.2 118.1 [illegible]T
ILS 110.3 I-BRO Apch Brg 173°

COLLEGE STATION
EASTERWOOD FIELD *IFR* 2 SW (098° 2.5 NM from CLL VOR
319 H51/10-28 (3) (S-30, T-40, TT-) BL4 S3 F4
FSS: COLLEGE STATION or Fl
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Services offered daylgt hrs only. Rnwy 28 apch rest by trees glide angle 0 to 1.
TOWER[1] 118.5 126.2 122.5R GND CON [illegible]
REMARKS: [1]Oper 1200-0400Z dly.

CORPUS CHRISTI INTL *IFR* 5 W (191° 7.9 NM CRP VOR)
43 H56/13-31 (2) (S-76, T-102, TT-162) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 13 FSS: ALICE (LC TU4-5[illegible]
REMARKS: Amber flashing lgt for rgt ptn. Due non-vsby some areas of fld ctc twr for instr. US Customs-lndg rts arpt 8 AM to 5 PM Mon-Fri req apr notice be forwarded to customs when flying flt plan in Canada, Mexico or Cuba.
TOWER 126.2 122.5R 120.9 118.3 GND CON [illegible]
RADAR SERVICES:
APP CON 118.3 123.7 122.5R
DEP CON 125.3
ILS 110.3 I-CRP Apch Brg 127°

DALLAS
ADDISON *IFR* 9 N (ADS VOR on fld)
637 H45/15-33 (2) BL4 S5 F5, JP1 U2
FSS: DALLAS (LC RI[illegible]
REMARKS: Rnwy 21 apch rest by poleline-glide angle 3 to [illegible]
TOWER 121.1 122.7R GND CON [illegible]
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 119.8[2] 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126°

DALLAS
LOVE FIELD *IFR* 5 NW (178° 7.1 NM from ADS VOR)
485 H77/13-31 (2) (S-100, T-150, TT-330) BL4, 6, [illegible]
11 S5 F5, JP1, 4 U2 VASI: Rnwy 31
RVR: Rnwy 13 FSS: DALLAS or [illegible]
REMARKS: Rnwy 36 apch rest by poleline-glide angle 14 to [illegible] Ctc apch ctl for tfc info. Formation tkofs prohibited. [illegible] N end rnwy 18 avbl for S lndgs & tkofs. US Customs rpts arpt 1230 am - 230 pm Mon-Fri, 1230 am - 430 pm Sat Req arr notice be forward customs when filing flt plan Canada, Mexico or Cuba. Rnwy 36 clsd for lndgs & tkofs
TOWER 126.2 122.5R 118.7 278T
CLRNC DEL 121.6 GND CON [illegible]
RADAR SERVICES:
DALLAS APP CON 125.2 123.7[2] 122.5R 119.8[3] [illegible] 110.3T
DALLAS DEP CON 119.5
TFC INFO Ctc APP CON 25 mi out
PAR Rnwys 13 , Ceil 200 Vsby 1/2 mi Min Alt 685
ASR Rnwys 13, 31[1] Ceil 400 Vsby 1 mi Min Alt [illegible]
ILS 110.3 I-DAL Apch Brg 127°
VHF/DF available, contact tower

REMARKS: [1]Maint at least 1400 ftl 3.5 mi from apch end of rnwy 31 and 1000 ftl 1.4 mi fm apch end of rnwy 31. [2]127°-307° [3]308°-126°. Acft apch love field from W and S side of lclzr crs extended should ctc Dallas APP CON on 123.7. Acft apch from N and E side of lclzr crs should ctc Dallas APP CON on 119.8.
VOT: 111.0

LAS
D BIRD *IFR* 6 SW (347° 1.1 NM from DCV RBN:
:59 H44 13-31 (2) BL4 S5 F4, JP1 U2
FSS: DALLAS (LC RI9-3502)
TOWER[1] 120.3 122.6R 248T GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 122.5R 119.8[2]
114.4T 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126° [3]Oper 120-0400Z.

ASO INTL *IFR* 4 NE (257° 3.8 NM from ELP VOR) AOE
:56 H121 4-22 (3) (S-95, T-156, TT-280) BL4, 6, 8 S5
:5, JP1, 4 U2 RVV: Rnwy 22 FSS: EL PASO on Fld
REMARKS: No acft in excess of 45,000 lbs wheel load can land. Acft will fly one base leg 90° to tfc ptn on entry & one cross wind leg 90° after tkof. Hvy mil acft vic arpt. Alt 366° overhead apch will be made at 1000 ft above terrain & pitch out to left except rnwys 4, 8, & 35 pitch out to rgt. Formation tkofs prohibited. Ctc twr for TAXI instr. Rnwy 4 threshold displaced 1000 ft NE. 11103 avbl lndg rnwy 4. Rnwy 8 threshold displaced 2072 ft E. 9099 ft avbl lndg rnwy 8. Rnwy 17 threshold displaced 395 ft S. 6707 ft avbl lndg rnwy 17.
OWER 118.3 126.2 122.5R 224T GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 118.7 126.2 124.3 122.7R 121.3 119.1
114.5T 112.4T
DEP CON 119.1
ASR Rnwys 22, 26 Ceil 400 Vsby 1 mi Min Alt 4356
.S 109.5 I-ELP Apch Brg 218°
EMARKS: VOT: 111.0

ORTH
ATER SOUTHWEST INTL *IFR* 16 NE (GSW VOR on fld)
:8 H84 13-31 (2) (S-120, T-180, TT-400) BL4, 6, 8 S3
5, JP5 RVR: Rnwy 13 FSS: FORT WORTH (LC MA 4-8444)
EMARKS: Ctn-const vic N end rnwy 17-35. Rnwy 17 threshold displaced 500 ft S. 5800 ft avbl lndg & tkof both directions.
)UTHWEST TOWER 118.9 126.2 122.7R 317T
SOUTHWEST GND CON 121.8
ADAR SERVICES:
FORTH WORTH APP CON 118.1 126.2 122.7R 119.6
109.5T
FORT WORTH DEP CON 123.9 122.7R
TFC INFO Ctc APP CON 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt
968
S 109.5 I-GSW Apch Brg 129°
F DF available, contact tower
MARKS: VOT: 111.8

ORTH
CHAM FIELD *IFR* 5 N (177° 2.1 NM from FTW RBn)
692 H52 17-35 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
, JP5 U2 FSS: FORT WORTH on Fld
REMARKS: Rnwy 31 apch rgst by poleline-glide angle 6 to 1. Rnwys 9, 27, 13 & 31 do not meet FAA standards for air carrier lndgs. Due non-vsby some areas of fld ctc twr for instr.
TOWER[1] 126.2 122.7R 118.3 GND CON 121.9
RADAR SERVICES:
FORT WORTH APP CON 119.6 126.2 122.7R 118.1
109.5T
FORT WORTH DEP CON 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174°
REMARKS: [1]Oper 1300-0500Z.
VOT: 108.2

GREENVILLE
MAJORS FIELD 4 SE (GVT VOR on fld)
544 H80 17-35 (3) (S-80, T-140, TT-220) BL4[1] S5 F4
FSS: DALLAS
REMARKS: Ngt lndg not advisible. Rnwy lgts on first 3500 ft rnwy 35 only, remainder lgtd smudge dots prior reg. S 3300' rnwy 17 lgtd.
TOWER[1] 121.3 122.5R
REMARKS: [1]Oper 1330-2200Z excp Sat & Sun.

HOUSTON INTL *IFR* 8 SE (HOU VOR on fld)
50 (H76 3-21 (3) (S-100, T-150, TT-270) BL4, 6, 8A S5,
F5, JP4 U2 RVR: Rnwy 3 FSS: HOUSTON on Fld
REMARKS: US Customs lndg rts arpt 8 AM-5 PM Mon-Sat, req arr notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba. Due non-vsby some areas of fld ctc twr for instr lndg, taxi, arr & dep.
TOWER 118.7 126.2 122.5R 119.1 3023.5R 278T
GND CON 121.9
RADAR SERVICES:
APP CON 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T
DEP CON 123.7 126.2 119.1
TFC INFO Ctc APP CON on 123.7 119.1 or 118.1 25 mi out.
ASR Rnwys 3, 12, 30 Ceil 400 Vsby 1 mi Min Alt 450. Rnwys 17, 35 Ceil 500 Vsby 1 mi Min Alt 550. Rnwy 21 Ceil 600 Vsby 1 mi Min Alt 650.
ILS 109.9 I-HOU Apch Brg 036°
VHF DF available, contact tower.
REMARKS: [1]218°-008° [2]009°-217°
VOT: 111.0

JOHNSON CITY MUNI *IFR* 10 W (346° 2 NM from JCY RBN)
1515 H63 17-35 (1) L4, 11 F4 U1 REIL: Rnwy 35
FSS: AUSTIN
TOWER[1] 126.2
RADAR SERVICES:
AUSTIN APP CON 124.9 125.1 122.7R
AUSTIN DEP CON 120.8
REMARKS: [1]Weather and altimeter setting avbl when twr is in oper.

LONGVIEW
GREGG COUNTY MUNI *IFR* 6 SE (125 2.3 NM from GGG VOR)
365 H61 17-35 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F4
U2 FSS: GREGG COUNTY on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
TOWER 119.7 122.5R GND CON 121.9
LONGVIEW APP CON 119.7 122.5R
ILS 109.5 I-GGG Apch Brg 126°

LUBBOCK MUNI *IFR* 4 NE (111° 4.6 NM from LBB VOR)
3269 H85/17R-35L (4) (S-30, T-40, TT) BL4, 6, 8
S5 F5, JP1 U2 FSS: LUBBOCK on Fld
REMARKS: Rnwy 3-21 rest to acft in excess of 60,000 lbs. Rnwy 12-30 rest to 80,000 lbs gwt tkof wt, except in emerg. Rnwy 35L threshold displaced 900 ft N. 7602 ft avbl lndg rnwy 35L. Rnwy 21 threshold displaced 300 ft SW. 3300 ft avbl lndg rnwy 21. Arpt clsd to MIL jet acft. Rnwy 17L-35R not apvd for air carrier. Ctn-const vic rnwys.
TOWER 119.9 126.2 122.5R
GND CON 121.9 APP CON 118.1 126.2 122.5R
110.8T 391T DEP CON 118.1
ILS 109.5 I-LBB Apch Brg 169°

MIDLAND AIR TERMINAL *IFR* 8 SW (181° 3.4 NM from MAF VOR)
2870 H83/10-28 (4) (S-100, T-128, TT-280) BL4, 6, 8 S5
F5, JP2 U2 RVV: Rnwy 10 FSS: MIDLAND on Fld
REMARKS: Due non-visby some areas of arpt ctc twr for instr. Rnwy 34L threshold displaced 627 ft N 6902 ft avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698 ft NW. 7602 ft avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303 ft NE. 5197 ft avbl lndg rnwy 4.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 121.1 122.5R 114.8T 110.3T
ILS 110.3 I-MAF Apch Brg 103°
VHF/DF available, contact tower

PLAINVIEW
HALE COUNTY *IFR* 1 S (023° 6 NM from PVW VOR)
3372 H52/4-22 (2) (S-30, T-40, TT) BL4 S5 F4 U2
FSS: LUBBOCK (LC CA 3-2148)
REMARKS: Rnwy 22 apch rest by hangar-glide angle 2 to 1.
TOWER [1]118.9 122.5R 233T GND CON 121.7
REMARKS: [1]Oper 1200-0400Z.

SAN ANGELO
MATHIS FIELD *IFR* 7 SW (234° 1.8 NM from SJT VOR)
1915 H59/3-21 (3) (S-35, T-56, TT) BL4, 8 S5 F4
U2 RVV: Rnwy 3 FSS: SAN ANGELO on Fld
REMARKS: Rnwy 27 apch rest by trees-glide angle 0 to 1. Rnwy 9-27 clsd to acft over 25,000 lbs gwt.
TOWER 118.3 122.5R GND CON 121.9
SAN ANGELO APP CON 118.3 122.5R 115.1T 109.7T
ILS 109.7 I-SJT Apch Brg 032°

SAN ANTONIO INTL *IFR* 7 N (175° 6.3 NM from SAT VOR)
808 H85/12-30 (3) (S-76, T-115, TT-255) BL4, 6, 8A S5
F4, JP1 U2 RVV: Rnwys 3, 12 FSS: SAN ANTONIO on Fld
REMARKS: Due non-visby some areas of fld ctc twr for instr. Rnwy 17-35 avbl convair & smaller acft only. Ctn-const in progress SW area. US customs lndg rts arpt 10 am-8 pm Mon-Sat req arr notice be forwarded to customs when filling flt plan in Canada, Mexico or Cuba.
TOWER 118.9 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 120.3 134.1 126.5 126.2R 122.5R 110.9T
109.7T DEP CON 123.9
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys[1] 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi
Min Alt 1208
ILS 110.9 I-ANT Apch Brg 123° BC unusable 109.7
I-SAT Apch Brg 032° VHF/DF available, contact tower.
REMARKS: [1]Rnwy 17, 35 restr to 2 eng acft and sml
VOT: 110.4

SAN ANTONIO
STINSON FIELD *IFR* 5 SE (337° 4.5 NM from SSF VOR
567 H49/9-27 (4) BL4 S5 F4
FSS: SAN ANTONIO (LC TA [illegible]
REMARKS: Due non-visby some areas of fld ctc twr for instr. All rnwy apchs rest by trees-glide angle 1 to 1. Rgt tfc rnwys 9, 14, 17, 22. Tfc 800 ft abo terrain 1367' MSL.
TOWER [1]119.5 122.7R GND CON [illegible]
RADAR SERVICES:
SAN ANTONIO APP CON 120.3 134.1 126.5 126.2F
122.5R SAN ANTONIO DEP CON [illegible]
REMARKS: [1]Oper 1300-0500Z.

TYLER
POUNDS FIELD *IFR* 4 W (127° 4.6 NM from TY LOM)
544 H52/13-31 (3) (S-30, T-40, TT) BL4, 6, 8 S5 F4
U2 FSS: TYLER [illegible]
REMARKS: Acft over 50,000 lbs rest rnwy 4-22. Rnwy 17 threshold displaced 250 ft S. 4803 ft avbl lndg rnwy 17. Const in progress on rnwys, txwys and lgts.
TOWER 120.1 122.5R GND CON [illegible]
TYLER APP CON 124.1 122.5R 109.9T 320T
ILS 109.9 I-TYR Apch Brg 127°

WACO MUNI *IFR* 5 NW (141° 3 NM from ACT VOR)
515 H57/18-36 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5 U2 RVV: Rnwy 18 FSS: WACO [illegible]
REMARKS: Rnwy 18-36 clsd until abt Mar 65 gnd SW [illegible] 5-23 clsd til Nov 21 64. Due non-vsby some areas of [illegible] twr for instr.
TOWER 119.9 126.2 122.5R GND CON [illegible]
RADAR SERVICES: (BCN)
APP CON 119.3 134.1 125.3 122.7R 115.3T
DEP CON 125.7
ILS 109.7 I-ACT Apch Brg 185°

WICHITA FALLS
SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5 N [illegible] 5.1 NM from SPS VOR)
1015 H131/15-33 (2) (S-65, T-300, TT-530) BL4, 6 S S
F5, JP1, 4, 5 U2 VASI: Rnwys 15 &35 RVV: Rnwys 15
33 FSS: WICHITA FALLS [illegible]
REMARKS: Overhead tfc ptn 2700 ft rectangular tfc ptn [illegible] MSL. Rgt tfc rnwys 17 & 33. Due non-vsby some areas of fld ctc twr for instr.
TOWER 119.1 126.2 122.5R 278T
GND CON 121.9 WICHITA FALLS APP CON [illegible]
122.5R 109.7T WICHITA FALLS DEP CON
ILS 109.7 I-SPS Apch Brg 328°
REMARKS: IFF/SIF svc avbl. Oper 1500-2400Z Mon-Fri excp holi.

UTAH

OGDEN MUNI *IFR* 3 SW (098° 3.7 NM from OGD VOR)
4455 H73/3-21 (3) (S-80, T-105, TT) BL4 S5 F5
U2 FSS: SALT LAKE CITY (LC E[illegible]
REMARKS: Rgt tfc rnwy 16, 21 & 35. Ctn-arr and dep Hill AFB apch ctl arr acft.
TOWER [1]118.7 122.5R GND CON 121.7

RADAR SERVICES:
HILL APP CON 120.2 132.9 124.1 122.5R 121.1
HILL DEP CON 121.1 TFC INFO Ctc APP CON apch 20 mi out. ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
REMARKS: [1]Oper 1300-0500Z.

T LAKE CITY MUNI NO 1 *IFR* 4 W (139° 3.6 NM from SLC VOR)
4..5 H10C 16R-34L (3) (S-100, T-160, TT-260) BL4, 6, 8 SS F5, JP1 U2 VASI Rnwy 16R RVR: Rnwy 34L
FSS: SALT LAKE CITY on Fld
REMARKS: E thof rnwy 7 prohibited perm. Rnwy 7-25 & 16-32 rest to acft in excess of 35,000 lbs. Ctc twr for instr due weight rest taxwys & rnwys. A rot beam ceilometer u/c apch rnwy 34L in oper.
SALT LAKE TOWER 118.3 126.2 122.7R
SALT LAKE GND CON 121.9
RADAR SERVICES:
SALT LAKE APP CON 120.9 122.7R 116.8T 109.5T
SALT LAKE DEP CON 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
LS 109.5 I-SLC Apch Brg 338°
VHF DF available, contact tower.
EMARKS: VOT: 111.0

VERMONT

.INGTON MUNI *IFR* 2 E (033° 4.3 NM from BTV VOR) AOE
35 H78 15-33 (2) (S-75, T-130, TT) BL6, 8A SS
5, JP1, 4 U2 RVV: Rnwy 15
FSS: MONTPELIER LC 878-3393)
OWER 126.2 122.5R 118.3 110.3T
GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 121.1 133.5 126.2 122.5R 110.3T
DEP CON 119.2
.S 110.3 I-BTV Apch Brg 146° BC Unusable
HF DF available, contact tower
EMARKS: VOT: 109.0

VIRGINIA

HBURG MUNI-PRESTON GLENN FLD *IFR* 6SW (025° 4 NM om LYH VOR)
12 H58/3-21 (3) (S-60, T-80, TT-120) BL6, 8 SS F4
2 FSS: ROANOKE (LC 846-3942)
YNCHBURG TOWER 120.7 122.5R
LYNCHBURG GND CON 121.9
LYNCHBURG APP CON 118.0 122.5R 120.7
S 110.1 I-LYH Apch Brg 032°

ORT NEWS
RICK HENRY *IFR* 9 NW (065° 2.7 NM from PH LOM)
H56/6-24 (2) (S-90, T-130, TT-225) BL4, 6, 8 SS
4, JP1 U2 FSS: NEWPORT NEWS on Fld
EMARKS: Fee in lieu of fuel for acft over 12,500.
OWER 118.7 122.7R 110.1T 317T
GND CON 121.9
ADAR SERVICES: (BCN)
NORFOLK APP CON 125.7
NORFOLK DEP CON 118.9
S 110.1 I-PHF Apch Brg 065°

NORFOLK MUNI *IFR* 5 NE ORF VOR on fld
26 H50 4-22 3[illegible] (S-70, T-100, TT-[illegible] BL4, 6, 8 SS
F4, JP1 U2 RVV: Rnwy 4 FSS: NEWPORT NEWS [illegible]
REMARKS: Rnwy 13 threshold displaced 219'.
TOWER 121.1 122.5R 109.1T 108.7Ta 281Ta
GND CON 121.9
RADAR SERVICES. (BCN
APP CON 126.8 DEP CON 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1 [illegible] Min Alt 526
ILS 109.1 I-ORF Apch Brg 045°
VHF DF available, contact tower.
REMARKS: IFF svc avbl.

RICHMOND
BYRD FIELD *IFR* 6 E RIC VOR on fld)
167 H80 15-33 (3) (S-90, T-130, TT-230) BL4, 6, 8 SS
F5, JP1, 4 U2 RVV: Rnwy 6 FSS: RICHMOND on Fld
REMARKS: Fee exec and sheds.
RICHMOND TOWER 119.5 126.2 122.5R 110.3T
CLRNC DEL 121.9 RICHMOND GND CON 121.9
RADAR SERVICES:
RICHMOND APP CON 119.0 126.2 122.5R 119.9 110.3T
RICHMOND DEP CON 118.2
TFC INFO Ctc twr 35 mi out.
ASR Rnwys 2, 6, 15, 20, 24, 33 Ceil 400 Vsby 1 mi Min Alt 567
ILS 110.3 I-RIC Apch Brg 063°
REMARKS: VOT: 110.8

ROANOKE MUNI (WOODRUM FLD) *IFR* 3 NW (ORD VOR on fld)
1174 H54 5-23 (3) (S-60, T-85, TT-140) BL4, 11 SS
F5, JP1 REIL: Rnwy 23 FSS: ROANOKE on Fld
REMARKS: Rnwy 33 threshold displaced 125'. Taxwy 27 rest to 5000'.
TOWER 118.3 122.5R 120.2
GND CON 121.9
RADAR SERVICES:
APP CON 126.9 122.5R 120.2 109.4T
DEP CON 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374.

WASHINGTON

EVERETT
PAINE FIELD *IFR* 6 SW (PAE VOR on fld)
603 H90 16-35 (2) (S-50, T-120, TT-220) BL6, 8 SS
F4, JP4 FSS: SEATTLE (DL)
REMARKS: Rnwy 11 thrshd dspcd 1600'.
TOWER 121.3 126.2 122.5R 3023.5R 278T
RADAR SERVICES:
SEATTLE CENTER APP CON 121.2
ILS 109.3 I-PAE Apch Brg 155°
REMARKS: IFF SIF svc avbl.

RENTON MUNI Adjt NW (031° 4.8 NM from SEA VOR)
29 H53 15-33 (1) (S-100, T-190, TT-300) BL4 SS
F4, JP4 U2 FSS: SEATTLE (LC CH 3-4200)
REMARKS: Rnwy 33 threshold displaced 1000'. Seaplane base off rnwy 15. Rgt tfc rnwy 33. Touch and go lndgs rest to acft over 30,000 lbs.
TOWER [1]118.9 122.7R
GND CON 121.9 SEATTLE DEP CON 119.2
REMARKS: [1]Oper 1500-0700Z.

SEATTLE

BOEING FIELD *IFR* 4 S (290° 2.1 NM from SJ RNG) AOE
17 H100/13-31 (2) (S-120, T-180, TT-400) BL6, 8, 11 S5
F5, JP1 U2 RVV: Rnwy 13 REIL: Rnwy 31
FSS: SEATTLE (DL)
REMARKS: Multi-eng and jet acft use rnwy 13-31. Birds in vicinity.
TOWER 126.2 122.5R 118.3 248T
GND CON 121.9
RADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
ILS 110.9 I-BFI Apch Brg 128°

SEATTLE-TACOMA INTL *IFR* 10 S (SEA VOR on fld)
428 H119/16-34 (2) S-45, T-145, TT-300) BL4, 6, 8A S5
F5, JP1, 4 RVV: Rnwy 16 RVR: Rnwy 34
FSS: SEATTLE on Fld
TOWER 119.9 126.2 122.6R 281T
CLRNC DEL 118.0 GND CON 121.7
RADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I-SEA Apch Brg 338° BC unusable 111.5
I-SZI Apch Brg 158°
VHF/DF available, contact tower.

SPOKANE INTL *IFR* 5 S (027° 4.4 NM from GEG VOR)
2372 H90/3-21 (2) (S-100, T-200, TT-350) BL4, 6, 8A
F5, JP1, 4 U2 RVV: Rnwy 3 RVR: Rnwy 21
FSS: SPOKANE (LC KE 5-2906)
REMARKS: Rgt tfc rnwy 3 and 7.
TOWER 118.3 126.2 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 134.1 126.2x 124.7 123.7 122.5R 119.0 109.9T
DEP CON 124.3
TFC INFO Ctc Spokane APP CON aprx 20 mi out.
ILS 109.9 I-GEG Apch Brg 205°
VOT: 109.6

YAKIMA MUNI *IFR* 2 S (244° 3.6 NM from YKM VOR)
1082 H55/9-27 (3) (S-50, T-60, TT-100) BL4, 6, 8 S5
F5, JP1, 4 U2 FSS: YAKIMA on Fld
TOWER 119.1 122.5R 3023.5R 278T
GND CON 121.9
APP CON 120.2 122.5R 119.1 3023.5R
ILS 110.1 I-YKM Apch Brg 269°

WEST VIRGINIA

CHARLESTON

KANAWHA *IFR* 2 NE (084° 8.1 NM from CRW VOR)
982 H56/5-23 (2) (S-150, T-200, TT-400) BL4, 6, 8, 11 S5
F4, JP5 U2 RVV: Rnwy 23 REIL: Rnwy 5
FSS: CHARLESTON on Fld
REMARKS: Rot beam ceilometer in oper vic apch rnwy 23. Ctc twr re ILS apchs. Due non-vsby some areas of fld ctc twr for instr.
CHARLESTON TOWER 120.3 126.2
CHARLESTON GND CON 121.9
RADAR SERVICES:
CHARLESTON APP CON 118.8 126.2 110.3T
CHARLESTON DEP CON 124.1
TFC INFO All landing acft ctc APP CON on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt
ILS 110.3 I-CRW Apch Brg 230°
VHF/DF available contact Tower.
REMARKS: VOT: 111.0

HUNTINGTON

TRI-STATE (WALKER LONG FLD) 6 SW (114° 4.6 NM from HT LOM)
828 H53/11-29 (1) (S-50, T-75, TT-135) BL6, 8 S5 F4
U2 FSS: HUNTINGTON
HUNTINGTON TOWER 120.9 122.5R
HUNTINGTON GND CON 121.9
HUNTINGTON APP CON 118.5 122.5R 109.9T
ILS 109.9 I-HTS Apch Brg 114°

MARTINSBURG MUNI *IFR* 4 S (289° 5.9 NM from MRB VOR
556 H70/8-26 (2) (S-90, T-120, TT-) BL4, 6, 8 S5 F
FSS: MARTINSBURG
TOWER [1]120.5 126.2 122.5R GND CON
RADAR SERVICES:
DULLES APP CON 125.0 126.1
DULLES DEP CON 125.55
PAR Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR Rnwy 26 Ceil 400 Vsby 1 mi Min Alt 956
REMARKS: [1]Oper 1230-2030Z Tue-Sun, 1230-0200Z Wed subject to ANG operations. Clsd Mon & hol. IFF SIF svc avbl.

WHEELING-OHIO COUNTY *IFR* 7 N (220° 5.8 NM from HLG VOR)
1195 H50/3-21 (3) (S-120, T-170, TT-290) BL4, 6, 8 F4
VASI: Rnwy 21 REIL: Rnwy 21 FSS: WHEELING
WHEELING TOWER 118.1 122.5R 109.7T
WHEELING GND CON 121.9
ILS 109.7 I-HLG Apch Brg 030°

WISCONSIN

GREEN BAY

AUSTIN STRAUBEL 7 SW (145° 4.6 from GRB VOR)
694 H52/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5 F4
RVV: Rnwy 6 FSS: GREEN BAY
REMARKS: US Customs Indg rts arpt. Rot bcn O S LFN.
GREEN BAY TOWER 118.7 122.5R 109.5T 278T
GREEN BAY GND CON 121.9
GREEN BAY APP CON 119.4
ILS 109.5 I-GRB Apch Brg 059°

MADISON

TRUAX FIELD 5 NE (TAX VOR on fld)
859 H76/18-36 (4) (S-60, T-80, TT-) BL4, 6, 8 S5 F4
5 U2 RVV: Rnwys 18, 36 FSS: LONE ROCK
REMARKS: Ctn-passing vic of fld. Jet tfc making 360° overhead apchs to rnwy 18-36. Jet ptn alt 2500 ft MSL. Practice flame-out apch on rnwy 18 or 36 when rpts wea at least 12,000 ft ceil and 5 mi vsby – remain within 5 mi rad fm gnd to 11,000 ft MSL dur practice. 1000 ft overruns each rnwy 18 - 36. Due non-vsby some areas of fld ctc twr for instr. Rnwy 8 apch rest by poleline - glide angle 4 to 1. Rnwy 18 apch rest by poleline - glide angle 13 to 1. Rnwy 36 apch rest by poleline - glide angle 14 to 1.

MADISON TOWER 119.3 126.2 115.5T 302.3 5R 27.8T
MADISON GND CON 121.9
MADISON APP CON 120.1 126.2 109.9T 302.3 5R 27.8T
MADISON DEP CON 125.6
ILS 109.9 I-MSN Apch Brg 359°
VHF DF available contact Tower.
REMARKS. IFF SIF svc avbl.

WAUKEE
ENERAL MITCHELL FLD 5 S (006° 3.6 NM from MK LOM)
702 H99 1-19 (4) (S-200, T-200, TT-400) BL4, 6, 8A S5
F5, JP1 U2 RVR: Rnwy 1 FSS: MILWAUKEE on Fld
REMARKS. Rgt tfc rnwy 1-7. Rnwy 19 threshold displaced 1600 ft S. 8316 avbl lndg rnwy 19. Rnwy 17L-25R clsd to all Jet acft. CTN - const vic rnwy 7R.
MILWAUKEE TOWER 119.1 126.2 124.8 122.7R 27.8T
CLRNC DEL 120.0 MILWAUKEE GND CON 121.9
RADAR SERVICES: (BCN)
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T 110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6
TFC INFO Call APP CON 15 mi out.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1102.
Rnwys 13, 19 Ceil 500 Vsby 1 mi Min Alt 1202.
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1302
ILS 110.3 I-MKE Apch Brg 006°
VHF DF available, contact Tower.
REMARKS: [1]Do not dsnd blo 1200 on apch until ctlr advs psg the AC Spark Plug twr. IFF SIF svc avbl.
VOT: 109.0

AUKEE
MMERMAN FIELD 5 NW (MWC VOR on fld)
745 H41 15L-33R (2) (Max-15) BL4 S5 F5
FSS: MILWAUKEE (DL)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Ctn-const in progress.
TOWER [1]120.5 122.5R 345T GND CON 121.7
RADAR SERVICES:
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T 110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.5R 118.6
REMARKS: [1]Oper 1100-0400Z.

OSHKOSH
WINNEBAGO CO 1 SW (OSH VOR on fld)
795 H58 9-27 (4) (S-75, T-100, TT-) BL4 S5 F4 U2
FSS. GREEN BAY (DL)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Rnwy 27 apch rest by poleline - glide angle 5 to 1. Rnwy 22 apch rest by poleline - glide angle 6 to 1. Rnwy 18 apch rest by poleline - glide angle 1 to 1. Rnwy 27 threshold displaced 875 ft W. 5225 ft avbl lndg rnwy 27. Rnwy 36 threshold displaced 890 ft N. 4260 ft avbl lndg rnwy 36.
OSHKOSH TOWER [1]120.7 122.5R 395T
OSHKOSH GND CON 121.9 GREEN BAY APP CON 119.4
ILS 110.5 I-OSH Apch Brg 088°
REMARKS: [1]Oper 1200-0400Z

WYOMING

CASPER AIR TERMINAL 7 NW (201° 13.2 NM from CPR VOR)
5348 H90 16-34 (4) (S-80, T-146, TT-288) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 7 FSS: CASPER on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. 1000 ft overruns on ea end rnwy 3-21 not lgtd. Ctn-sheep grazing vic rnwys.
TOWER 126.2 122.5R 118.3 GND CON 121.9
APP CON 120.7 126.2 122.5R 118.3 116.2T 110.3T
ILS 110.3 I-CPR Apch Brg 074°

CHEYENNE MUNI 1 N (195° 3.7 NM from CYS VOR)
6156 H93 8-26 (3) (S-90, T-121, TT-270) BL4, 6, 8 S5
F5, JP4 RVV: Rnwy 26 FSS: CHEYENNE on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Avoid hospital E. Ctn-acft making simulated apchs. Use of rnwy 16 rest for tkof lgt acft when wind is 10 MPH or less, hvy single eng or multi eng acft when wind 15 MPH or less. Rnwy 8 threshold displaced 400 ft E. 8897 ft avbl lndg rnwy 8.
TOWER 126.2 122.5R 118.7 113.1T 201T
GND CON 121.9
VFR ADV Ctc APP CON on 119.9 aprx 25 mi out.
APP CON 126.2 122.5R 119.9 118.7 113.1T 326T
ILS 109.9 I-CYS Apch Brg 261°

ALL—Normal communications between ARTCC controllers and pilots of IFR aircraft, **at all altitudes**, will be conducted via direct controller-to-pilot communication channels using the appropriate ARTCC **SECTOR** discrete frequency. Pilots will be advised of the frequency to be used and when a frequency change is required.

VHF—Communications between ARTCC controllers and pilots of limited radio equipped aircraft that do not have in-flight tuning capability will be conducted on the ARTCC **AREA** discrete (CAD) frequency, or by relay through the flight service station (FSS). The VHF CAD frequency is normally available to and shared by all non-radar equipped sectors.

The use of radar in air traffic control requires the capability of instantaneous interference free controller-to-pilot communications since radar separation minima may be used; therefore, radar equipped sectors used to control IFR traffic operating below 24,000 feet are provided discrete frequency assignments with normal 100 kc channel protection in the 118.0–127.0 mc band and VHF CAD frequency/communications capability is not provided at these sectors.

Communications with limited equipped aircraft operating at FL 240 and above will be handled by relay through FSS, or as directed by ATC.

EMERGENCY FREQUENCIES—Direct controller-to-pilot communications capability on the emergency frequenices 121.5/243.0 mc is limited to the area (dependent upon the location/altitude of the aircraft) within the vicinity of the ARTC Center since these frequencies are installed to Center use at the local ARTC Center transmitting/receiving site only.

MISC—Communication frequency information for use above FL 240 can also be found on the high-altitude charts.

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
ALBUQUERQUE									
VHF (Low)				VHF (High)					
[illegible]	125.1	124.6	125.7	132.9	133.0	133.65	133.75	119.7	
124.5	124.6	124.9	125.2	133.8	133.85	133.55	134.65		
[illegible]	127.2	132.3	132.8	134.75	135.05	135.3	135.7		
134.5				135.8	135.15				
ATLANTA									
VHF (Low)				VHF (High)					
[illegible]	120.0	120.3	120.8	132.25	132.75	132.85	132.9	125.9	
[illegible]	123.2	123.8	124.1	133.1	133.35	133.7	134.55		
124.4	125.2	125.5	126.4	134.6	135.15	135.75			
126.6	127.15	127.55	127.8						
[illegible]95	128.3	128.6	128.65						
BOSTON									
VHF (Low)				VHF (High)					
[illegible]	121.0	124.0	124.2	127.8	128.1	132.5	133.65	125.9	
124.9	125.8	127.0	127.1	132.9	134.3	134.45	134.85		
[illegible]	127.6	127.8	127.9	134.95					
[illegible]	128.2	132.4	132.56						
[illegible]									
CHICAGO									
VHF (Low)				VHF (High)					
[illegible]	120.4	120.5	120.8	127.45	127.95	132.15	132.5	124.1	
[illegible]	124.0	124.4	124.5	132.75	133.35	133.5	133.95		
[illegible]	125.1	125.2	126.6	134.85	135.55				
[illegible]	126.9	127.0	127.1						
[illegible]	127.6	127.7	128.05						
[illegible]	128.4	128.5	128.65						
[illegible]	132.3	133.9							
CLEVELAND									
VHF (Low)				VHF (High)					
[illegible]	118.9	119.6	119.8	132.25	132.45	133.25	133.3	126.5	
[illegible]	120.3	120.4	120.6	133.95	134.25	134.65			
[illegible]	121.2	121.4	123.9						
[illegible]	124.3	124.4	124.5						
[illegible]	125.0	125.1	125.2						
[illegible]	125.5	125.6	125.7						
[illegible]	126.4	126.8	127.15						
[illegible]	127.45	127.65	127.9						
[illegible]	128.45	129.6	134.3						

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
DENVER									
VHF (Low)				VHF (High)					
119.8	124.1	125.0	126.6	127.3	127.55	128.2	132.1	125.5	
125.8	126.0	126.2	127.8	132.15	132.6	132.85	134.15		
132.2	132.5	134.7	135.0	134.3	134.75	135.85	134.65		
135.4	134.6			135.5	135.15	135.65			
FORT WORTH									
VHF (Low)				VHF (High)					
119.4	120.9	124.4	124.6	132.2	132.35	132.45	132.55	120.9	
124.7	124.8	125.0	125.5	132.75	132.5	133.35	133.95		
125.6	126.0	126.6	127.3	134.25	135.4	135.8			
127.7	128.0	128.1	128.3						
128.45	133.1	133.3	135.9						
135.0	135.6								
GREAT FALLS									
VHF (Low)				VHF (High)					
120.4	124.1	125.1	125.5	132.25	132.65	132.95	133.4	123.9	
126.5	127.1	127.3	127.8	133.55	134.3	134.55	135.25		
128.0	128.5			342.7	351.9				
INDIANAPOLIS									
VHF (Low)				VHF (High)					
118.2	123.6	124.2	124.4	132.7	133.05	133.45	133.75	124.9	
124.8	126.0	127.0	127.1	134.35	134.75	134.9	134.95		
127.4	127.75	128.3	128.4						
128.55	128.8	132.6	135.1						
135.7	135.8								
JACKSONVILLE									
VHF (Low)				VHF (High)					
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65	124.7	
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.85		
127.2	128.1	128.5	132.3	135.05	135.25	135.55	135.65		
132.5	132.6	133.4	133.5						
134.3	134.7								

Center SECTOR Discrete Frequencies

Center AREA Frequency Discrete

KANSAS CITY

VHF (Low)				VHF (High)				
118.8	128.9	119.0	119.2	132.25	132.4	132.65	132.9	123.9
119.4	119.6	119.7	120.2	132.95	133.1	133.15	133.35	
121.0	123.6	123.8	124.2	133.45	133.8	134.3	134.7	
125.2	125.3	125.4	125.9	134.9	135.0	135.4	135.25	
126.4	127.2	127.8	128.0	135.65				
128.1	132.2	132.8						

LOS ANGELES

VHF (Low)				VHF (High)				
119.0	119.8	124.5	125.8	127.9	128.3	128.6	132.15	123.9
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.55	
127.3	127.4	128.2	128.4	134.75	134.95	135.45		
132.3	132.5	132.6	133.4					
133.8	134.2	134.4	134.6					
135.05								

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	123.6	132.35	133.0	133.55	133.6
124.4	124.6	125.4	127.1	134.25	134.45	134.9	135.3
127.2	127.25	127.3	127.4	135.5	135.7		
127.75	128.0	128.05	128.7				
132.1	132.3	132.5	135.45				

MIAMI

VHF (Low)				VHF (High)				
118.9	120.0	120.3	123.6	125.7	127.7	132.7	132.95	120.5
124.1	124.4	124.5	124.7	133.65	133.8	134.35	134.5	
125.4	125.6	125.8	126.0	134.95	135.15	135.5		
126.4	127.0	127.3	128.25					

MINNEAPOLIS

VHF (Low)				VHF (High)				
120.3	120.9	125.5	125.9	132.15	133.4	133.55	133.65	118.9
126.0	126.1	127.2	127.3	133.85	134.25	134.45	134.8	
127.4	127.5	127.8	127.9	134.55	135.45	135.7		
128.2	128.4	132.1	132.6					
134.8								

NEW ORLEANS

VHF (Low)				VHF (High)				
118.9	120.7	123.6	124.0	132.6	132.7	133.65	133.85	125.1
124.1	124.6	125.1	125.8	134.75	135.2			
126.0	126.6	126.8	126.9					
128.1	128.4							

Center SECTOR Discrete Frequencies

Center AREA Discrete Frequency

NEW YORK

VHF (Low)				VHF (High)				
119.6	119.8	120.0	120.2	132.1	132.3	132.95	133.8	133.9
123.6	124.1	124.2	124.8	133.9	134.8	135.45	135.55	
125.1	125.3	125.4	125.5	135.75				
125.6	126.0	126.4	126.6					
126.8	127.95	128.2	128.3					
128.5	128.65	132.6	134.6					
135.1	135.6	135.65	137.65					

OAKLAND

VHF (Low)				VHF (High)				
118.4	120.2	120.4	120.6	124.95	128.15	132.35	132.65	133.7
121.2	123.8	123.9	124.0	132.8	132.95	133.3	133.7	
124.2	124.6	125.5	125.9	133.75	134.35	134.7	134.85	
126.5	126.8	127.2	127.5					
127.7	127.8	128.7						

SALT LAKE CITY

VHF (Low)				VHF (High)				
123.6	124.0	124.4	124.5	132.4	132.5	132.25	132.55	133.5
126.6	127.0	127.4	128.4	132.75	133.25	133.45	134.35	
133.1				134.8	134.85	135.7		

SAN ANTONIO

VHF (Low)				VHF (High)				
118.2	119.7	121.0	121.2	132.15	132.8	133.75	134.8	135.5
124.2	125.4	125.8	125.9	134.35	134.95			
126.4	126.9	126.95	127.2					
127.4	127.8	128.0	128.2					
128.3	128.4	132.9	133.05					
134.7	134.8							

SEATTLE

VHF (Low)				VHF (High)				
120.3	120.9	121.2	124.1	133.0	133.5	133.9	134.65	135.7
125.1	125.3	125.6	125.8	134.75				
126.0	128.1	132.1	132.6					
134.95								

WASHINGTON

VHF (Low)				VHF (High)				
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0	124.5
121.0	123.9	124.0	124.1	133.15	133.55	133.65	133.85	
124.7	124.9	125.2	125.8	134.4	135.2			
126.4	127.1	127.6	128.15					
128.6	132.15	132.4	133.25					
135.0	135.4							

Pilot to Forecaster Weather Briefing Service available on 122.6 mc.

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Stations providing Airport Advisory Service (AAS) are indicated by the letters AAS following the FSS name. 122.2T is the standard FSS transmitting frequency for this service.

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

•–indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

†–indicates a restricted number, use for aviation weather information only.

%–call FSS for "one call" FSS WBAS briefing service.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name.

FSS's transmit on navigational aid frequencies which are listed first, followed by the identification of the NAVAID.

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 135.9 and emergency 121.5. These frequencies are available at all stations listed, unless annotated by a diamond (◆), identifying those stations where complete standard FSS communications frequencies are not available. This diamond is then supplemented with those standard FSS communications frequencies not available, listed by a cross-out, i.e., ~~135.9~~. Additional frequencies, e.g., 3023.5R, are listed when available. Frequencies transmit and receive unless annotated by the addition of: R – Receive Only, T – Transmit Only, X – On Request.

ALABAMA

Location and Frequencies		Code Area	Telephone
Anniston AAS 122.8 329 (ANB)	FSS	(205)	831-2303
Birmingham 114.4 224 (BHM)	FSS	(205)	595-6151
	WB	(205)	%
	WB	(205)	595-7101•
Dothan 111.6 (DHN)	FSS	(205)	794-6683
Gadsden	FSS	(205)	536-1254
	WB	(205)	881-2361†
Gore Springs (Bates) 115.3 248 (MGM)	FSS	(205)	342-1177
	WB	(205)	342-7762†
Montgomery (Dannelly) 112.1 (MGM)	FSS	(205)	269-4358
	WB	(205)	263-0021†
Muscle Shoals (AAS) 116.9 (MSL)	FSS	(205)	383-6541
	FSS	(205)	383-4430
Tuscaloosa (AAS) 117.3 (TCL)	FSS	(205)	758-3628

ARIZONA

Location and Frequencies		Code Area	Telephone
Douglas (AAS) (Bisby-Douglas) 110.0 (DUG)			
110.0 (DUG)	FSS	(602)	EM 4-5353
Flagstaff	WB	(602)	774-1424
Phoenix (Sky Harbor) 115.6 326 (PHX)	FSS	(602)	261-4295
	WB	(602)	BR 5-8501•
	WB	(602)	%
Prescott (AAS) 114.1 347 (PRC)	FSS	(602)	HI 5-2160
	WB	(602)	445-7221
			(0700-1500)
Tucson 117.1 338 (TUS)	FSS	(602)	294-1463
Winslow	WB	(602)	289-3592
	WB	(602)	%
Yuma 115.8 (YUM)	FSS	(602)	725-2601
	WB	(602)	725-7605
			(0430-2030)

ARKANSAS

Location and Frequencies		Code Area	Telephone
El Dorado (Goodwin) 108.2 368 (ELD)	FSS	(501)	UN 3-3313
Fayetteville (AAS) (Drake) 116.9 (FYV)	FSS	(501)	HI 2-8277
Little Rock 112.4 311 (FSM)	FSS	(501)	MI 6-1791
	WB	(501)	MI 6-5721†
Harrison (AAS) 110.5 (HRO)	FSS	(501)	EM 5-3433
Little Rock	WB	(501)	FR 4-1545•
Pine Bluff (AAS) (Grider) 116.0 (PBF)	FSS	(501)	JE 5-0552
Texarkana 116.3 329 (TXK)	FSS	(501)	774-6221
Walnut Ridge (AAS) 114.5 (ARG)	FSS	(501)	TU 6-6671

CALIFORNIA

Location and Frequencies		Code Area	Telephone
Arcata (AAS) 233 (CVI)	FSS	(707)	TE 9-2071
Bakersfield (Meadows) 115.4 239 (BFL)	FSS	(805)	399-1787
	WB	(805)	%
Bishop			UP 3-3213
			(0545-1915)
Blythe (AAS) 117.4 251 (BLH)	FSS	(805)	948-6038
Burbank	WB	(213)	848-1460†
	WB	(213)	762-4111•
			Via Los Angeles
Crescent City (AAS) (McNamara FLD) 109.0 (CEC)	FSS	(213)	IN 4-2514
Daggett (AAS) 113.2 365 (DAG)	FSS	(213)	CL 6-5021
Fresno (Air Terminal) 112.9 344 (FAT) 3023.5RX	FSS	(209)	251-8260
	FSS	(209)	251-8269
	WB	(209)	255-2388†
			(0500-2200)
Imperial (AAS) 115.9 (IPL)	FSS	(209)	355-1948
Long Beach	WB	(213)	429-3563†
	WB	(213)	DA 3-4626•
			Via Los Angeles
Los Angeles (International) 113.6 332 (LAX)	FSS	(213)	SP 6-2727
	WB	(213)	670-3692†
	WB	(213)	SP 6-1640•
Marysville (AAS) (Yuba Co.) 305 (MYV)	FSS	(213)	SH 2-1449
Montague (AAS) (Siskiyou Co.) 382 (SIY)	FSS	(213)	459-3003
Mt Shasta	WB	(916)	926-2227
			(0730-1600)
Needles (AAS) 115.2 269 (EED)	FSS	(213)	EA 6-3511
Oakland (Metropolitan-International) 116.8 362 (OAK)	FSS	(415)	638-5714
	WB	(415)	%
	WB	(415)	832-5418•
			(Via San Francisco)
Ontario 117.0 (ONT)	FSS	(415)	YU 4-6631

Location and Frequencies		Code Area	Telephone
Palmdale (USAF Plant #42) 114.5 317 (PMD)	FSS	(415)	947-3502
Paso Robles (AAS) 114.3 (PRB)	FSS	(415)	238-2448
Red Bluff (AAS) (Bidwell) 115.7 338 (RBL)	FSS	(415)	LA 7-0242
	WB	(415)	527-5435†
Sacramento 115.2 (SAC)	FSS	(916)	GA 8-6500
Salinas 117.3 (SNS)	FSS	(408)	422-4723
San Diego (Lindbergh) 117.8 (SAN)	FSS	(714)	296-3181
	WB	(714)	293-5068†
San Francisco	IFSS	(415)	588-2284
	WB	(415)	589-6711*
	WB	(415)	761-2052†
Santa Barbara 114.9 (SBA)	FSS	(415)	967-2305
Santa Catalina Island	WB		Avalon 703
Santa Maria	WB	(805)	WA 5-3525
Stockton 116.0 (SCK)	FSS	(209)	466-3684
	WB	(209)	464-6283†
Thermal (AAS) 116.2 (TRM)	FSS	(209)	EX 9-5155
Ukiah (AAS) 112.3 (UKI)	FSS	(209)	462-6136

COLORADO

Akron (AAS) 114.4 388 (AKO)	FSS	(303)	345-2271
Alamosa	WB	(303)	598-2547
			(0400-2000)
Colorado Springs	WB	(303)	632-0535†
Denver (Stapleton Air Field) 116.3 379 (DEN)	FSS	(303)	DU 8-4279
	WB	(303)	297-3049†
	WB	(303)	388-3653*
Eagle (AAS) (EGE)	FSS	(303)	328-2125
Grand Junction (Walker Field) 112.4 396 (GJT)	FSS	(303)	CH 2-1801
	WB	(303)	243-0914
La Junta (AAS) (LHX)	FSS	(303)	DU 4-4311
Pueblo (Memorial) 116.7 373 (PUB)	FSS	(303)	948-3301
	WB	(303)	948-3376†
Trinidad 329 (TAD)	FSS	(303)	846-2623

CONNECTICUT

Bridgeport	WB	(203)	378-2344
Hartford (Bradley Field)	WB	(203)	247-2855†
New Haven	WB	(203)	469-2141†
			(0630-1700)
Windsor Locks (Bradley Field) (BDL) 3023.5RX	FSS	(203)	NA 3-2416
	WB	(203)	NA 3-5590

DELAWARE

Wilmington	WB	(302)	EA 8-2755†

DISTRICT OF COLUMBIA

Washington (Chantilly, Va) Dulles Intl (27.5¢ toll)	WB	(703)	661-8526†
Washington (National) 111.0 332 (DCA)	FSS	(202)	DI 7-1442
	WB	(202)	DI 7-8016*
	WB	(202)	NA 8-0491

FLORIDA

Apalachicola	WB	(305)	653-3171
Crestview (AAS) 115.9 350 (CEW)	FSS	(305)	MU 2-2795
Daytona Beach 112.6 (DAB)	FSS	(305)	255-4767
	WB	(305)	CL 2-5949
Ft. Myers (AAS) (Page Field) 117.6 341 (FMY)	FSS	(813)	WE 6-1552
	WB	(813)	WE 6-2052
			(0650-2400 Apr-Oct
			(0600-2200 Nov-Mar
Gainesville (AAS) 116.2 (GNV)	FSS	(305)	FR 6-4521
Jacksonville (Imeson) 114.5 344 (JAX)	FSS	(305)	EL 9-3651
	WB	(305)	EL 3-9657*
			(0300-0330
	WB	(305)	EL 3-9571*
Key West (AAS) (International) 115.3 332 (EYW)	FSS	(305)	CY 6-2421
	WB	(305)	CY 6-2011
Lakeland (J.F.K. Meml)	WB	(305)	682-4251
			(0600-2400 Nov 15-Mar 15
			(0800-1700 Mar 16-Nov 14
Melbourne (AAS) 109.8 257 (MLB)	FSS	(305)	PA 3-6151
Miami 115.9 365 (MIA)	IFSS	(305)	634-7581
	WB	(305)	634-7671
	WB	(305)	633-4241*
Orlando (Herndon) 112.2 (ORL)	FSS	(305)	CH 1-4481
	WB	(305)	423-4652*
			(0600-2200
Pensacola 326 (PNS)	FSS	(305)	HE 3-4351
St Petersburg via Tampa	WB	(813)	894-2081*
Tallahassee 117.5 379 (TLH)	FSS	(305)	224-7181
	WB	(305)	222-3351
Tampa (Tampa International) 388 (TPS) 3023.5 RX	FSS	(813)	877-5021
	WB	(813)	877-2641*
	WB	(813)	877-5671*
Vero Beach (AAS) 117.3 (VRB)	FSS	(305)	231-[illegible]
W Palm Beach (Palm Beach International) 115.5 356 (PBI)	FSS	(305)	832-5681
	WB	(305)	683-5221*

GEORGIA

Albany (AAS) 112.9 (ABY)	FSS	(912)	HE 5-3311
Alma (AAS) 115.1 (AMG)	FSS	(912)	632-4471
Athens	WB	(912)	LI 3-3651*
Atlanta (Fulton Co.) (AAS) 245 (FTY)	FSS	(912)	344-1321
	WB	(912)	765-2241*
	WB	(912)	765-3151*
Augusta (Bush Fld) 113.9 385 (AGS)	FSS	(912)	798-3161
	WB	(912)	798-6021
Brunswick (AAS) (Malcom McKinnon) 109.8 (SSI)	FSS	(912)	638-4511
Columbus (Muscogee County) 117.1 335 (CSG)	FSS	(912)	327-4121
	WB	(912)	FA 3-2781
			(0630-2345
Macon (Cochran) 114.2 (MCN)	FSS	(912)	788-3261
	WB	(912)	788-1321*
Rome	WB	(912)	232-6651
			(0700-1300 Mon-Fri
			(0700-1100 Sat)
Savannah (Travis) 112.7 (SAV)	FSS	(912)	234-7321
	WB	(912)	AD 3-6771
Valdosta (AAS) 110.4 (VLD)	FSS	(912)	CH 4-4361

IDAHO

Boise (Air Terminal) 113.3 359 (BOI)	FSS	(208)	343-5321
	WB	(208)	[illegible]
Burley (AAS) 114.1 272 (BYI)	FSS	(208)	678-2151
Idaho Falls (Fanning Field) 108.2 350 (IDA)	FSS	(208)	522-4021
Malad City 117.4 332 (MLD)	FSS	(208)	[illegible]
Mullan Pass 117.8 411 (MLP)	FSS	(208)	996-2201

FSS FREQUENCIES AND TELEPHONE NUMBERS

Location and Frequencies		Code Area	Telephone
Lewiston	WB	(208)	SH 3-[illegible]
			(0530-2130)
Pocatello 114.4 257 (PIH)	FSS	(208)	23[illegible]032
	WB	(208)	233-0837
Champaign (University of Ill.) 110.0 (CMI)	FSS	(217)	8[illegible]-5811

ILLINOIS

Chicago	WB	(312)	686-7150*
	WB	(312)	667-5055*
Joliet AAS: 112.3 (JOT)	FSS	(217)	725-3144
Moline (Quad City) 114.4 (MLI)	FSS	(309)	762-0812
	WB	(309)	762-1726
Peoria (Greater Peoria) 115.2 356 (PIA)	FSS	(309)	697-0751
	WB	(309)	637-4472*
Quincy (Baldwin) 113.1 (UIN)	FSS	(217)	TU 5-3251
Rockford (Greater Rockford) 110.8 (RFD) 30[illegible].5RX	FSS	(815)	965-6[illegible]58
	WB	(815)	963-5816†
			(0515-2115)
Springfield (Capital) 112.7 379 (SPI)	FSS	(217)	544-9012
	WB	(217)	523-5812
Vandalia (AAS) 114.3 (VLA)	FSS	(618)	283-[illegible]18

INDIANA

Evansville (Dress Memorial) 113.3 (EVV) 302.5RX	FSS	(812)	HA 2-8120
	WB	(812)	HA 5-5549
Ft Wayne (Baer Field) 113.9 251 (FWA)	FSS	(219)	747-3189
	WB	(219)	747-2577†
Indianapolis (Weir-Cook) 116.3 266 (IND)	FSS	(317)	CH 4-9561
	WB	(317)	CH 4-7411*
	WB	(317)	CH 4-3382†
Lafayette (Purdue University) 113.7 (LAF)	FSS		RI 3-1802-3
South Bend (St. Joseph Co.) 115.4 (SBN)	FSS	(219)	CE 3-4433
	WB	(219)	234-3937†
Terre Haute (Hulman) 111.8 245 (Huf	FSS		C-2704

IOWA

Burlington (AAS) 111.4 (BRL)	FSS	(319)	752-4734
	WB	(319)	754-6742
Cedar Rapids 117.6 (CID)	FSS	(712)	364-3041
Davenport (via Moline Ill.)	WB	(319)	326-2677
Des Moines 114.1 (DSM)	FSS	(515)	285-5691
Dubuque	WB	(319)	582-0174
Mason City 114.9 (MCW)	FSS	(515)	GA 3-7512
Ottumwa 111.6 (OTM)	FSS	(515)	MU 2-1846
Sioux City 116.5 335 (SUX)	FSS	(712)	8-1060
	WB	(712)	2-0244
Waterloo 108.2 (ALO)	FSS	(319)	AD 3-5528
	WB	(319)	234-9902

KANSAS

Concordia	WB	(913)	CH 3-3141
Cranute 109.2 (CNU)	FSS	(316)	HE 1-4450
Dodge City (AAS) 108.2 (DDC)	FSS	(316)	HU 3-3441
	WB	(316)	HU 3-3311
Emporia 112.8 (EMP)	FSS	(316)	DI 2-7475
Garden City (AAS) (New Municipal) 113.3 (GCK)	FSS	(316)	BR 6-2531
Goodland (AAS) 115.1 (GLD)	FSS	(913)	TW 9-7154
	WB	(913)	TW 9-2360†

Location and Frequencies		Code Area	Telephone
Hill City AAS: 115.2 (HLC)	FSS	(913)	674-5[illegible]42
Hutchinson 116.6 (HUT)	FSS	(316)	2-4851
Manhattan (AAS MHK)	FSS	(913)	PR 6-9751
Russell 114.5 (RSL)	FSS	(913)	483-[illegible]312
Salina 115.3 (SLN)	FSS	(913)	TA 5-[illegible]305
Topeka (Phillip Billard) 117.8 304 (TOP)	FSS	(913)	CE 2-5478
	WB	(913)	CE 4-2592*
Wichita 113.8 332 (ICT)	FSS	(316)	WH 2-7261 2
	WB	(316)	WH 2-3264*
	WB	(316)	WH 3-1063†

KENTUCKY

Bowling Green (Warren County) 117.9 (BWG)	FSS	(502)	VI 3-4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381-8195*
Lexington (Blue Grass) 117.0 (LEX)	FSS	(606)	254-7080
	WB	(606)	255-1774†
London 116.1 263 (LOZ)	FSS	(606)	VO 4-4410
Louisville (Bowman) 114.8 (LOU)	FSS	(502)	GL 8-[illegible]911
	WB	(502)	364-2[illegible]*
Paducah (Barkley) 117.3 336 (PUK)	FSS	(502)	442-155[illegible]

LOUISIANA

Alexandria 116.1 251 (AEX)	FSS	(318)	445-3663
	WB	(318)	HI 3-75[illegible]*
			(0600-2200)
Baton Rouge (Ryan) 116.5 (BTR) 302.5RX	FSS	(504)	EL 5-2763
	WB	(504)	EL 7-9943†
Lafayette 110.8 375 (LFT)	FSS		CE 5-3752
	WB		234-1220*
Lake Charles 113.4 242 (LCH)	FSS	(318)	477-1784
	WB	(318)	477-5227*
Monroe (Selman) 113.7 (MLU)	FSS	(318)	322-3157
New Orleans 113.2 338 (MSY)	FSS	(504)	943-5535
	WB	(504)	523-4311*
	WB	(504)	729-2520†
Shreveport (Greater Shreveport) 117.8 [illegible] (SHV)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141†

MAINE

Augusta (State) 111.4 221 (AUG)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton (Memorial International) 108.2 (HUL)	FSS	(207)	532-2475
Millinocket (AAS) 117.9 344 (MLT)	FSS	(207)	723-8343
Old Town (OLD)	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland (PWM)	FSS	(207)	SP 5-0602
	WB	(207)	775-3071†

MARYLAND

Baltimore	WB	(301)	761-1331†
	WB	(301)	766-0757*
			(0600-2300)
Salisbury (Salisbury-Wicomico) 114.5 (SBY)	FSS	(301)	742-7324

MASSACHUSETTS

Location and Frequencies		Code Area	Telephone
Boston (Logan) 117.7 382 (BOS) 3023.5RX	FSS	(617)	LO 7-0099
	FSS	(617)	LO 7-0015
	WB	(617)	%
	WB	(617)	567-1773*
			(0600-2300)
Nantucket (AAS) 112.7 (ACK) 3023.5R	FSS	(617)	228-0815
	WB	(617)	228-0971
Worcester (ORH)	FSS	(617)	PL 5-6083
	WB	(617)	798-2124†

MICHIGAN

Alpena	WB	(517)	354-8733†
Battle Creek (Kellogg) 109.4 (BTL)	FSS	(616)	2-7878
Detroit (Metropolitan Wayne) 388 (DTW)	FSS	(313)	PA 2-8790
	WB	(313)	278-7340†
Detroit (Willow Run)	WB	(313)	482-5001
	WB	(313)	CR 4-5310
Flint (Bishop) 111.6 (FNT)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987
Grand Rapids (Kent County) 110.2 (GRR)	FSS	(616)	949-4090
	WB	(616)	949-4251†
Houghton (AAS) (Houghton County) 112.8 227 (CMX)	FSS	(906)	482-0380
Houghton Lake	WB	(906)	366-5392
			(0630-2230)
Jackson (AAS) (Reynolds Mun.) 109.6 (JXN)	FSS	(517)	ST 4-9640
Lansing (Capital City) 110.8 (LAN) 3023.5RX	FSS	(517)	2-9237
	WB	(517)	IV 9-2415†
Marquette 109.0 (MQT)	FSS	(906)	GR 5-4197
	WB	(906)	CA 6-8642†
			(0515-2100)
Muskegon (Muskegon County) 115.6 (MKG)	FSS	(616)	SW 8-1222
	WB	(616)	SW 8-3048
Pellston (AAS) (Emmet County) 111.8 332 (PLN)	FSS	(616)	LE 9-8401
Saginaw (Tri City) 112.9 212 (MBS)	FSS	(517)	OX 5-6621
Saulte Ste Marie (AAS) 112.2 400 (SSM)	FSS	(906)	ME 2-8271
	WB	(906)	ME 2-7751
Traverse City 112.4 365 (TVC)	FSS	(616)	WI 7-5056
	WB	(616)	482-5001

MINNESOTA

Alexandria (AAS) 112.8 (AXN)	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982†
Hibbing (Chisholm-Hibbing) 110.8 (HIB)	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis (Wold-Chamberlain) 117.3 266 (MPS)	FSS	(612)	PA 9-9386
	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429†
	WB	(612)	PA 9-9339*
Redwood Falls (AAS) 113.3 (RWF)	FSS	(507)	ME 7-8530
Rochester 112.0 (RST)	FSS	(507)	289-1579
St. Cloud	WB	(612)	289-0026†
St. Paul	WB	(612)	BL 1-3213†
	WB	(612)	PA 9-4429†
			(0400-2200)

MISSISSIPPI

Greenwood (AAS) 114.7 (GRW)	FSS	(601)	GL 3-2631
Jackson (McKellar Field) 112.6 260 (JAN)	FSS	(601)	354-5531
	WB	(601)	939-5881†

Location and Frequencies		Code Area	Telephone
McComb (AAS) (Pike County) 116.7 (MCB)	FSS	(601)	684-7075
Meridian (AAS) (Key Field) 117.0 356 (MEI)	FSS	(601)	482-1243
	WB	(601)	483-3735*
Vicksburg	WB	(601)	636-1193
			(0630-1530 Mon-Fri)
			(0630-1130 Sat, Sun, Holidays)

MISSOURI

Cape Girardeau (CGI)	FSS	(314)	ED 4-2803
Columbia 111.2 (CBI)	FSS	(314)	GI 4-6436
	WB	(314)	GI 4-4232
Joplin (JLN)	FSS	(417)	MA 3-6658
Kansas City 112.6 359 (MKC)	FSS	(816)	GR 1-4572
	WB	(816)	GR 1-2131
	WB	(816)	GR 1-4575*
Kirksville (AAS) 114.6 (IRK)	FSS	(816)	5-4135
St. Joseph (Rosecrans Memorial) 108.2 (STJ)	FSS	(816)	AD 4-7394
	WB	(816)	AD 2-3135*
			(0530-1830)
St. Louis (Lambert) 117.4 338 (STL)	FSS	(314)	PE 1-4411
	WB	(314)	PE 1-3000*
	WB	(314)	PE 1-3004*
			(0800-2200)
	WB	(314)	TH 6-3383*
			(Hazelwood)
Springfield 116.9 254 (SGF)	FSS	(417)	UN 2-3598
	WB	(417)	UN 6-2321†
Vichy (AAS) (Rolla National) 117.7 (VIH) 3023.5RX	FSS	(314)	AX 9-3877

MONTANA

Billings (Logan Field) 114.5 400 (BIL)	FSS	(406)	245-5233
	WB	(406)	252-7309*
Bozeman (AAS) (Gallatin Field) 112.2 329 (BZN) 3023.5RX	FSS	(406)	586-4255
Butte (AAS) (Silver Bow) 111.6 (BTM)	FSS	(406)	723-3014
Cut Bank (AAS) 114.4 263 (CTB) 3023.5R	FSS	(406)	338-4522
Dillon (AAS) 113.0 379 (DLN)	FSS	(406)	683-5655
Glasgow	WB	(406)	228-2396
			(0300-2400)
Great Falls (International) 115.1 371 (GTF) 3023.5RX	FSS	(406)	452-4495
Havre	WB	(406)	453-2552
	WB	(406)	265-6479
			(0630-1315)
Helena (City-County) 117.7 317 (HLN)	FSS	(406)	442-4570
			(0630-2400)
	WB	(406)	442-6350
Lewistown (AAS) 112.0 353 (LWT)	FSS	(406)	538-3639
Livingston (AAS) (Mission Field) 116.1 224 (LVM)	FSS	(406)	222-2411
Miles City 112.1 320 (MLS)	FSS	(406)	232-1500
Missoula (AAS) (Missoula City) 112.8 308 (MSO)	FSS	(406)	542-2230
	WB	(406)	542-3306*

NEBRASKA

Chadron (AAS) 113.4 275 (CDR)	FSS	(308)	HE 3-3153
Grand Island 112.0 (GRI)	FSS	(308)	382-5136
	WB	(308)	384-5300*
Imperial (AAS) (IML)	FSS	(308)	TU 2-4887
Lincoln (Union) (LKN) 3023.5RX	FSS	(402)	466-8354
	WB	(402)	432-4036
			(0630-2130)

FSS FREQUENCIES AND TELEPHONE NUMBERS

Location and Frequencies		Area Code	Telephone
North Platte (AAS) (Lee Bird) 117.4 224 (LBF) 3023.5RX	FSS	(308)	LE 2-4004†
	WB	(308)	532-9577†
Omaha (Eppley) 116.3 320 (OMA)	FSS	(402)	341-6178
	WB	(402)	341-5436†
	WB	(402)	342-3603*
Scottsbluff (AAS) 112.6 341 (BFF)	FSS	(308)	635-2615
	WB	(308)	632-6822
Sidney 115.7 (SNY)	FSS	(308)	254-3130
Valentine	WB	(402)	98
			(0500-1300)

NEVADA

Elko 114.5 391 (EKO)	FSS	(702)	738-6506
	WB	(702)	%
Ely (AAS) (Yelland Field) (ELY)	FSS	(702)	264-2045
	WB	(702)	264-2403
Las Vegas (McCarran) 116.9 206 (LAS)	FSS	(702)	736-1573 4
	WB	(702)	%
Lovelock (AAS) (Derby Field) 116.5 209 (LOL)	FSS	(702)	CR 3-2448
Reno 117.9 254 (RNO)	FSS	(702)	FA 9-4444
	WB	(702)	329-2902†
Tonopah (Nye County) 117.2 221 (TPH)	FSS	(702)	482-6421
Winnemucca	WB	(702)	623-2703

NEW HAMPSHIRE

Concord 11.29 (CON)	FSS	(603)	224-7474
	WB	(603)	225-5191
			(0600-1900)
Lebanon (Regional) 111.6 (LEB)	FSS	(603)	298-8360

NEW JERSEY

Atlantic City	WB	(609)	641-4327†
Millville 115.8 363 (MIV)	FSS	(609)	825-1173
Newark	WB	(201)	MA 4-8118
			MA 4-7272*
			(Via New York)
Teterboro (TEB)	FSS	(201)	AT 8-9092

NEW MEXICO

Albuquerque 113.2 230 (ABQ)	FSS	(505)	CH 3-7832
	WB	(505)	242-2661*
	WB	(505)	CH 3-7832
Carlsbad (AAS) 116.3 (CNM)	FSS	(505)	TU 5-2042
Clayton	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)
Deming (AAS) 108.6 (DMN)	FSS	(505)	546-2726
Farmington (AAS) 115.3 (FMN)	FSS	(505)	DA 5-9271
Grants (AAS) 116.5 (GNT)	FSS	(505)	AT 7-3011
Hobbs (Lea County) 111.0 (HOB)	FSS	(505)	EX 3-3222
Las Vegas (AAS) 117.3 (LVS)	FSS	(505)	GA 5-7411
Raton	WB	(505)	445-3891
			(0545-1225)
Roswell (AAS) 116.1 305 (ROW)	FSS	(505)	622-6780
	WB	(505)	622-8580
			(0430-1830)
Santa Fe 110.6 (SAF)	FSS	(505)	YU 3-6581
Silver City	WB	(505)	538-9023
			(0530-2000 Mon-Fri)
			(0530-1330 Sat)
Truth or Consequences (AAS) 112.7 (TCS)	FSS	(505)	894-3277
Tucumcari (AAS) 113.6 (TCC)	FSS	(505)	461-2900
Zuni 113.4 (ZUN)	FSS	(505)	782-3770

NEW YORK

Albany (Albany County) 116.9 (ALB)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173†
Binghamton (Broome County) 114.1 317 (BGM)	WB	(607)	797-0784†
Buffalo (Greater Buffalo) 116.5 260 (BUF)	FSS	(716)	NF 2-6083
	WB	(716)	632-5042*
	WB	(716)	632-6952†
Elmira (Chemung County) 113.7 375 (ELM)	FSS	(716)	RE 9-2471
Glens Falls (AAS) (Warren County) 110.2 (GLF)	FSS	(716)	RX 3-2593
Kennedy	IFFS	(212)	995-8659
New York (John F. Kennedy International)	WB	(212)	995-9151†
LaGuardia	WB	(212)	NE 9-2118†
Massena (AAS) 114.1 (MSS)	FSS	(716)	RO 9-2033
Poughkeepsie (Dutchess County) 112.2 (POU)	FSS	(716)	GL 2-0650
Rochester (Monroe County) 110.0 (ROC)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391†
Syracuse (Hancock) 117.0 350 (SYR)	FSS	(315)	GL 4-2479
	WB	(315)	455-5031†
Utica (Oneida) 113.9 275 (UCA)	FSS	(315)	RE 6-9023
Watertown (AAS) 109.8 (ART) 3023.5RX	FSS	(315)	NE 9-3321

NORTH CAROLINA

Asheville 112.2 (AVL)	FSS	(704)	684-4401
	WB	(704)	648-6096
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-1019†
Durham	WB	(919)	596-2326
Elizabeth City (Coast Guard Air Station) 109.4 (ECG)	FSS	(919)	338-3808
Fayetteville (Grannis Field) 108.8 201 (FAY)	FSS	(919)	HE 3-3468
Greensboro	WB	(919)	299-9499†
Hickory (AAS) 110.8 (HKY)	FSS	(704)	DA 7-8281
New Bern (Simmons-Nott) 108.4 379 (EWN) 3023.5RX	FSS	(919)	ME 7-2080
Raleigh-Durham 117.2 350 (RDU)	FSS	(919)	787-4289
	WB	(919)	787-4092†
Rocky Mount (AAS) 117.8 (RMT)	FSS	(919)	446-6637
Wilmington (New Hanover County) 117.0 (ILM)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	724-2208†

NORTH DAKOTA

Bismarck 116.5 230 (BIS 3023.5RX	FSS	(701)	CA 3-8790
	WB	(701)	223-0920†
Dickinson (AAS) 112.9 308 (DIK)	FSS	(701)	224-2989
Fargo (Hector) 116.2 365 (FAR)	FSS	(701)	AD 5-8894
Grand Forks (International) 109.4 (GFK)	FSS	(701)	772-3291
Jamestown (AAS) 114.5 344 (JMS)	FSS	(701)	CL 2-4350
Minot (International) 117.1 209 (MOT)	FSS	(701)	TE 3-8112
Williston	WB	(701)	473-3198†
			(0445-2045)

OHIO

Location and Frequencies		Code Area	Telephone
Akron 114.6 362 (ACO)	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246†
Canton	WB	(216)	499-7933†
Cincinnati (Greater Cincinnati) 112.9 335 (CVG	FSS	(513)	321-1434
	WB	(513)	381-8195†
	WB	(513)	381-2300*
	WB	(513)	381-6706†
Cleveland (Hopkins) 113.6 344 (CLE)	FSS	(216)	267-3700
	WB	(216)	267-3410*
	WB	(216)	267-0149
Columbus 391 (CMH)	FSS	(614)	237-8478
	WB	(614)	%
Dayton 117.5 (DAY)	FSS	(614)	898-4639
	WB	(614)	898-4620†
			(Vandalia Exchange)
Findlay 108.2 209 (FDY)	FSS	(614)	GA 2-3237
Mansfield 108.8 374 (MFD)	FSS	(614)	524-5323
	WB	(614)	522-7070
			(0600-1800)
Toledo (Express) (TOL)	FSS	(419)	242-4171
	WB	(419)	865-4472†
Youngstown 109.0 (YNG)	FSS	(419)	LI 5-8041
	FSS	(419)	856-4806
	WB	(419)	856-4801†
Zanesville (AAS) 111.4 275 (ZZV)	FSS	(419)	GL 2-8611

OKLAHOMA

Ardmore (AAS) 116.7 400 (ADM)	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage (AAS) 115.6 266 (GAG)	FSS	(405)	923-2601
Hobart (AAS) 111.8 (HBR)	FSS	(405)	GE 6-4234
McAlester (AAS) 112.0 (MLC)	FSS	(918)	GA 3-4091
Oklahoma City (Will Rogers) 115.0 350 (OKC)	FSS	(405)	SU 9-7452
	WB	(405)	MU 5-4433*
	WB	(405)	MU 5-6350†
Ponca City (AAS) 113.2 368 (PNC)	FSS	(405)	RO 5-5485
Tulsa 114.4 245 (TUL)	FSS	(918)	TE 8-3316
	WB	(918)	TE 5-4775†
			TE 5-2364*

OREGON

Astoria	WB	(503)	861-2722
Baker (AAS) 115.3 221 (BKE)	FSS	(503)	523-2961
Eugene (AAS) (Mahlon-Sweet) 112.9 248 (EUG)	FSS	(503)	DI 3-7738
	WB	(503)	344-0141†
Klamath Falls (Kingsley Field) 115.9 242 (LMT) 3023.5RX	FSS	(503)	TU 4-8223
	WB	(503)	TU 2-5060
			(0800-1600)
Meacham	WB	(503)	Meacham 2
			(0700-1500)
Medford 113.6 263 (MFR)	FSS	(503)	772-6523
	WB	(503)	773-1067
North Bend (AAS) 112.1 (OTH)	FSS	(503)	756-4916
Pendleton 114.7 341 (PDT) 3023.5RX	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland (International) 116.6 332 (PDX)	FSS	(503)	AT 2-7293
	WB	(503)	AT 2-2285*
	WB	(503)	AT 7-1244†
Redmond (AAS) (Roberts Field) 117.6 368 (RDM)	FSS	(503)	548-2522
Roseburg	WB	(503)	[illegible]
			[illegible]
Salem	WB	(503)	[illegible]
			[illegible]
The Dalles (AAS) 117.2 230 (DLS)	FSS	(503)	[illegible]

PENNSYLVANIA

Allentown (Bethlehem-Easton) 117.5 321 (ABE)	FSS	(215)	[illegible]
	WB	(215)	[illegible]
Altoona (Blair County) 108.8 (AOO)	FSS	(814)	[illegible]
Bradford (Bradford-McKean) 116.6 224 (BFD)	FSS	(814)	[illegible]
DuBois 356 (DUJ)	FSS	(814)	[illegible]
Erie (Port Erie) 115.7 372 (ERI)	FSS	(814)	[illegible]
	WB	(814)	[illegible]
Harrisburg (Harrisburg-York State) 112.5 338 (HAR)	FSS	(717)	[illegible]
	WB	(717)	[illegible]
North Philadelphia 112.0 (PNE)	FSS	(717)	[illegible]
	WB	(717)	[illegible]
	WB	(717)	[illegible]
			[illegible]
Philipsburg (AAS) (Black Moshannon) 115.5 236 (PSB)	FSS	(717)	[illegible]
Pittsburg (Allegheny) 117.1 254 (AGC)	FSS	(412)	[illegible]
	WB	(412)	[illegible]
			[illegible]
Reading	WB	(412)	[illegible]
Scranton	WB	(412)	[illegible]
			(0700-0900 Sun. [illegible]
			[illegible]
	WB	(412)	[illegible]
Wilkes-Barre (Wilkes-Barre, Scranton) 117.8 (AVP)	FSS	(412)	[illegible]
	WB	(412)	[illegible]
			[illegible]
Williamsport (Williamsport/Lycoming) 114.4 385 (IPT)	FSS	(412)	[illegible]
	WB	(412)	[illegible]
			[illegible]

RHODE ISLAND

Providence (Green) 115.6 (PVD)	FSS	(401)	[illegible]
	WB	(401)	[illegible]

SOUTH CAROLINA

Anderson (AAS) 108.6 (AND)	FSS	(803)	[illegible]
	FSS	(803)	[illegible]
Charleston 113.5 329 (CHS) 3023.5RX	FSS	(803)	[illegible]
	WB	(803)	[illegible]
	WB	(803)	[illegible]
			[illegible]
Columbia 114.7 (CAE)	FSS	(803)	[illegible]
	WB	(803)	[illegible]
Florence (AAS) 115.2 (FLO)	FSS	(803)	[illegible]
	WB	(803)	[illegible]
Greenville	WB	(803)	[illegible]
			[illegible]
Myrtle Beach 116.0 (MYR)	FSS	(803)	[illegible]
Spartanburg	WB	(803)	[illegible]
			[illegible]

SOUTH DAKOTA

Aberdeen 113.0 329 (ABR)	FSS	(605)	[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

Location and Frequencies		Area Code	Telephone
	WB	(615)	255-2557*
Nashville Howell 117.6 391 (HQN)	FSS	(615)	EL 2-3606
	WB	(615)	34[illegible]-3495*
			(0500-1300)
Paris AAS 112.5 347 (PIR)	FSS	(615)	224-5854
Rapid City 112.3 254 (RAP) 3023.5RX	FSS	(605)	FI 2-2790
	WB	(605)	342-4058
Sioux Falls 115.0 245 (FSD)	FSS	(605)	ED 6-4641
	WB	(605)	338-2441*
Watertown AAS 116.6 (ATY)	FSS	(605)	Tu 6-4561

TENNESSEE

Bristol	WB	(615)	323-8242
Chattanooga	WB	(615)	892-3737*
Crossville AAS (Crossville-Cumberland) 117.6 (CSV)	FSS	(615)	484-6711
Dyersburg AAS 116.8 (DYR)	FSS	(901)	AT 5-4842
Jackson AAS (McKellar) 280 (MKL) 3023.5RX	FSS	901)	7-0611
Johnson City	WB	(615)	323-8142
			(Brown's Ferry exchange)
Kingsport	WB	(615)	323-8121*
Knoxville (McGhee-Tyson) 116.4 257 (TYS)	FSS	(615)	577-0795
	WB	(615)	577-4695*
Memphis 115.5 371 (MEM)	FSS	(901)	396-9260 9
	WB	(901)	398-3387*
	WB	(901)	398-3672*
Nashville Metropolitan) 114.1 304 BNA)	FSS	(615)	AL 4-4552 3
	WB	(615)	256-0833*
Tri-City TRI)	FSS	(615)	FA 3-7242

TEXAS

Abilene 113.7 (ABI)	FSS	(915)	OR 4-6915
	WB	(915)	OR 4-8844*
Alice AAS) 114.5 (ALI)	FSS	(512)	MI 4-4791
Amarillo (Air Terminal) 117.2 251 (AMA)	FSS	(806)	DI 9-1608
	WB	(806)	DI 9-2261
Austin (Robert Mueller) 112.5 (AUS)	FSS	(512)	GR 8-6695
	WB	(512)	GR 6-0940
Beaumont (Jefferson County) 114.9 (BPT)	FSS	(512)	RA 2-0288
	WB	(512)	RA 2-7011*
Brownsville (Rio Grande Valley International) 116.3 388 (BRO)	FSS	(512)	LI 6-6621
	WB	(512)	LI 2-8231*
Childress 117.6 (CDS)	FSS	(817)	WE 7-3892
College Station (AAS) (Easterwood) 113.3 (CLL)	FSS	(713)	VI 6-8784 5
Corpus Christi	WB	(512)	TU 3-3008*
Dallas (AAS) 115.8 215 (COT)	FSS	(512)	TR 9-2417
Dalhart 112.0 (DHT)	FSS	(806)	CH 9-2006
Dallas (Love Field) 114.6 341 (DAL) 3023.5RX	FSS	(214)	FL 7-2825
	WB	(214)	AN 4-3481*
	WB	(214)	RI 9-3502*
El Paso (International) 114.5 242 (ELP) 3023.5RX	FSS	(915)	PR 8-4447
	WB	(915)	778-4387*
	WB	(915)	772-3208*
Fort Worth (AAS) (Meacham) 365 (FTW)	FSS	(817)	MA 4-8444
	WB	(817)	BU 3-1571*
	WB	(817)	BU 3-3961*
Galveston (AAS) (Scholes) 112.8 206 (GLS)	FSS	(713)	SH 4-3255
	WB	(713)	SO 3-5670*
			(2130-0530)
	WB	(713)	SH 4-2833*
			(0543-2130)

Location and Frequencies		Area Code	Telephone
Gregg County (Longview) 112.4 (GGG)	FSS	(214)	
Houston (International) 115.9 332 (HOU) 3023.5RX	FSS	(713)	MI 5-6693
	WB	(713)	MI 4-2507*
	WB	(713)	OL 4-0178*
Junction (AAS) 116.0 (JCT)	FSS	(713)	HI 6-2561
Laredo	WB	(512)	RA 3-5841*
Lubbock (Kimbee County) 116.8 391 (LBB)	FSS	(806)	PO 2-5066
	WB	(806)	PO 2-3801*
Lufkin (Angelena County) 112.1 356 (LFK)	FSS	(713)	NE 4-3544
McAllen (AAS) (Miller Field) 109.6 (MFE)	FSS	(713)	MU 6-7678
Midland (Air Terminal) 114.6 (MAF)	FSS	(713)	LO 3-2611
	WB	(713)	LO 4-0850*
Mineral Wells (AAS) 117.7 284 (MWL) 3023.5RX	FSS	(713)	FA 5-5922
Odessa	WB	(915)	LO 3-0801
			(via Midland)
Palacios (AAS) 117.3 (PSX)	FSS	(713)	874-2218
Port Arthur	WB	(713)	RA 2-7011*
San Angelo (Mathis) 115.1 (SJT)	FSS	(713)	655-5638
	WB	(713)	655-9780*
San Antonio (International) 116.8 254 (SAT)	FSS	(512)	TA 6-5373
	WB	(512)	TA 6-0411*
Tyler (Pounds) 320 (TYR)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	HI 5-1276*
Waco 115.3 ACT)	FSS	(817)	PL 2-4811
	WB	(817)	PL 4-1582
Wichita Falls 112.7 296 (SPS)	FSS	(817)	322-1302
	WB	(817)	322-2011
Wink 112.1 (INK)	FSS	(915)	LA 7-3351

UTAH

Bryce Canyon 112.8 (BCE)	FSS	(801)	TE 4-5311
Cedar City (AAS) 108.6 (CDC)	FSS	(801)	JU 6-9131
Delta 117.6 212 (DTA)	FSS	(801)	4741
Hanksville (AAS) 115.9 (HVE)	FSS	(801)	Hanksville 8
Milford	WB	(801)	387-2361
			(0900-1700)
Salt Lake City (Municipal #1) 116.8 227 (SLC)	FSS	(801)	524-5183
	WB	(801)	364-5571
	WB	(801)	524-5139*
Wendover	WB	(801)	2731
			(0430-2015)

VERMONT

Burlington	WB	(802)	862-2475
Montpelier (Barre-Montpelier) 108.2 257 (MPV)	FSS	(802)	CA 3-2376

VIRGINIA

Blackstone 326 (BKT)	FSS	(703)	292-3826
Bristol	WB	(703)	323-8242*
			(Tri-City)
Chantilly (Dulles)	WB	(703)	661-8526*
Charlottesville (Charlottesville Albemarle) (CHO)	FSS	(703)	296-3320
Danville 113.1 (DAN)	FSS	(703)	SW 3-1163
Newport News (Patrick Henry) (PHF)	FSS	(703)	877-0200
	FSS	(703)	877-0209
Norfolk	WB	(703)	853-3014
Richmond (Byrd Field) 114.1 260 (RIC)	FSS	(703)	RE 7-8103
	WB	(703)	737-0550*
Roanoke (Woodrum) 109.4 371 (ROA)	FSS	(703)	EM 6-0011
	WB	(703)	366-2351*

FSS FREQUENCIES AND TELEPHONE NUMBERS

WASHINGTON

Location and Frequencies		Area Code	Telephone
Bellingham 113.0 362 (BLI) 3023.5R	FSS	(206)	734-6400
Ephrata 116.8 269 (EPH)	FSS	(509)	SK 4-2361
Hoquiam (AAS) (Bowerman) 113.1 (HQM)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle (Seattle-Tacoma Int'l.) 114.5 260 (SEA)	FSS	(206)	CH 3-4200
(Boeing)	WB	(206)	PA 5-8044†
(Tacoma)	WB	(206)	CH 3-6308*
(Tacoma)	WB	(206)	CH 2-8060†
Spokane (AAS) 115.5 365 (GEG)	FSS	(509)	KE 5-2906
	WB	(509)	MA 4-5674†
Toledo (AAS) (Toledo-Winlock) 239 (TDO)	FSS	(206)	864-2371
Walla Walla (AAS) (City-County) 111.8 356 (ALW)	FSS	(509)	JA 9-1413
Wenatchee (AAS) (Pangborn) 111.0 (EAT)	FSS	(509)	TU 4-5654
Yakima 116.0 (YKM)	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Beckley	WB	(304)	252-3171†
Bluefield (AAS) (Mercer County) 115.4 (BLF)	FSS	(304)	325-6521
Charleston (Kanawha) 117.4 (CRW)	FSS	(304)	342-1371
	WB	(304)	344-1291†
Elkins (Randolph) 114.5 245 (EKN)	FSS	(304)	636-0818
	WB	(304)	636-1246†
Hur. .gton (Tri-State) 323 (HTS)	FSS	(304)	GL 3-1412
	WB	(304)	453-3674†
Martinsburg (AAS) 113.8 209 (MRB)	FSS	(304)	AM 3-9353
Morgantown 111.6 269 (MGW)	FSS	(304)	292-3632
Parkersburg (Wood County) 114.2 (PKB)	FSS	(304)	485-6421
	WB	(304)	422-3661
			(0700-1400 Mon-Fri)
			(0700-1200 Sat)
Wheeling (Ohio County) 112.2 (HLG)	FSS	(304)	CR 7-1252

WISCONSIN

Location and Frequencies		Area Code	Telephone
Eau Claire (AAS) 112.9 (EAU) 3023.5RX	FSS	(715)	[illegible]
Green Bay (Austin Straubel) 117.0 (GRB)	FSS	(715)	[illegible]
	WB	(715)	[illegible]
La Crosse (AAS) 106.4 371 (LSE) 3023.5RX	FSS	(715)	[illegible]
	WB	(715)	[illegible]
			[illegible]
Lone Rock (AAS) (Tri-County 112.8 (LNR) 3023.5RX	FSS	(715)	[illegible]
Madison (Traux) 400 (MSN) 3023.5RX	FSS	(608)	[illegible]
	WB	(608)	[illegible]
Milwaukee (General Mitchell) 116.4 242 (MKE)	FSS	(414)	[illegible]
	WB	(414)	[illegible]
Wausau (AAS) 111.6 (AUW) 3023.5RX	FSS	(414)	[illegible]

WYOMING

Casper (Casper Air Terminal) 116.2 269 (CPR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
Cheyenne 113.1 326 (CYS)	WB	(307)	[illegible]
	WB	(307)	[illegible]
Lander	WB	(307)	[illegible]
Laramie (AAS) (General Brees Field) 117.6 245 (LAR)	FSS	(307)	[illegible]
Rawlins (AAS) (RWL)	FSS	(307)	[illegible]
Rock Springs (AAS) 114.7 290 (RKS)	FSS	(307)	[illegible]
Sheridan (AAS) (Sheridan County) 115.3 239 (SHR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
			[illegible]
Worland (AAS) (WRL)	FSS	(307)	[illegible]

Federal Aviation Agency

Airman's INFORMATION MANUAL

SECTION IVA

AIRPORT/FACILITY DIRECTORY

EFFECTIVE 0501Z 7 JANUARY 1965

To 0501Z 4 FEBRUARY 1965

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ALABAMA

INGHAM MUNI *IFR* 4 NE (178° 2.6 NM from BHM RBN)
643 H92.5-23 (2) (S-120, T-170, TT-300) BL6, 8 S5
F5, JP1, JP4 U2 RVR: Rnwy 5 FSS: BIRMINGHAM on Fld
REMARKS: Acft arresting barriers on overrun rnwy 23. Rnwy 23 threshold displaced 1761' SW. Rnwy 5 9247' lgtd full length.
TOWER 118.7 126.2 122.5R 114.4T 110.3T
GND CON 121.9
APP CON 119.9 126.2 114.4T 110.3T
RADAR SERVICES:
DEP CON 124.9
TFC INFO Ctc APP CON 25 NM out.
ASR Rnwys 5, 23 Ceil 600 Vsby 1 mi Min Alt 1243. Rnwy 18 Ceil 700 Vsby 1 mi Min Alt 1343. Rnwy 36 Ceil 800' Vsby 1 mi Alt 1443.
LS 110.3 I-BHM Apch Brg 052 BC unusable
VOT: 112.0

SVILLE-MADISON CO. *IFR* 3 S (157° 6.4 NM from HSV VOR)
19 H52/18-36 (2) (S-50, T-85, TT-130) BL4, 6, 8 S5
4, JP1, JP4 RVV: Rnwy 18 FSS: MUSCLE SHOALS (DL)
OWER 119.7 122.5R 109.0T GND CON 121.9
APP CON 125.6 122.5R 109.0T
LS 109.3 I-HSV Apch Brg 178°

LE
TES FLD *IFR* 9 W (107° 6.3 NM from MOB VORTAC)
17 H78/14-32 (3) (S-40, T-150, TT-280) BL4, 6, 8A S5
5 JP1 U2 RVV: Rnwy 14 FSS: MOBILE on Fld
EMARKS: Threshold displaced 1000' NW rnwy 32
OWER 118.3 126.2 122.5R GND CON 121.9
ADAR SERVICES: (BCN)
MOBILE APP CON[1] 118.5 126.2 123.7 122.5R 115.3T 112.8T
MOBILE DEP CON 134.1 125.7
.S 109.9 I-MOB Apch Brg 139° BC unusable
EMARKS: [1]APP CON unable to provide complete radar tfc advy svc fm BFM VORTAC 090°-110° rad.

GOMERY
NELLY FLD *IFR* 6 SW (318° 5.6 NM from MGM VORTAC)
1 H90/9-27 (3) (S-120, T-170, TT-300) BL4, 6, 8 S5
4 JP1 U2 RVR: Rnwy 9 FSS: MONTGOMERY on Fld
EMARKS: J-Bar rnwy 9-27. Rstd to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel.
)WER 119.7 126.2 122.5R 109.9T
CLRNC DEL 121.9
GND CON 121.9
ADAR SERVICES: (BCN)
MONTGOMERY APP CON 121.1 126.2 122.7R 112.1T
MONTGOMERY DEP CON 125.5 124.0
TFC INFO Ctc Montgomery APP CON on 121.1 (Low) aprx 25 mi out.
ASR Rnwy 9, 27 Ceil 400 Vsby 1 mi Min Alt 621
S 109.9 I-MGM Apch Brg 093°

ARIZONA

PHOENIX
SKY HARBOR MUNI *IFR* 3 E (256° 5.3 NM from PHX VOR)
1122 H103 8R-26L (2) (S-170, T-300, TT-595) BL4, 10 S5
F5 JP1 U2 VASI: Rnwy 8R FSS: PHOENIX on Fld
PHOENIX TOWER 118.7 126.2 122.5R 120.9 278T
CLRNC DEL 120.4 PHOENIX GND CON 121.9
PHOENIX APP CON 118.1 126.2 122.5R 115.6T
REMARKS: VOT: 109.0

TUCSON INTL *IFR* 6 S (254° 6.1 NM from TUS VOR) AOE
2630 H120/12L-30R (3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2 FSS: TUCSON on Fld
REMARKS: 5649 ft avbl lngd rnwy 3, 6000 ft avbl rnwy 21.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.5 134.1 126.2 125.9 125.1 122.5R
DEP CON 125.9 TFC INFO ctc APP CON 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.

ARKANSAS

FORT SMITH MUNI *IFR* 4 SE (225° 5.2 NM from FSM VOR)
468 80H/7-25 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F-5, JP-1 U2 RVV: Rnwy 25 FSS: FORT SMITH on Fld
TOWER 118.3 126.2 122.5R GND CON 121.9
APP CON 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 253° BC unusable

HOT SPRINGS
MEMORIAL FLD *IFR* 3 SW (HOT VOR on Fld)
535 H50/5-23 (2) (S-30, T-40, TT-) BL4 S5 F4
FSS: PINE BLUFF (LC NA 4-4481)
TOWER 120.3 122.5R 110.0T 248T GND CON 121.7
HOT SPRINGS APP CON 120.3 122.5R 110.0T 248T

LITTLE ROCK
ADAMS FLD *IFR* 2E (314° 3.8 NM from LIT VOR)
257 H70/4-22 (3) (S-90, T-180, TT-) BL4, 6, 8 S5
F4, JP1, JP4 U2 RVV: Rnwy 4
FSS: PINE BLUFF (LC FR 5-2790)
TOWER 118.7 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
LITTLE ROCK APP CON 119.5 126.2 124.2 122.5R 113.9T
LITTLE ROCK DEP CON 118.1
ASR Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS[1] 110.3 I-LIT Apch Brg 040°
REMARKS: ASR Apch not auth rnwy 17 and 14. [1]Jan 20 will be shutdown until Jan 30.

CALIFORNIA

BAKERSFIELD
MEADOWS FIELD *IFR* 4 NW (131° 3.4 NM from BFL VOR)
488 H57/12L-30R (2) (S-110, T-170, TT-300) BL4, 6, 8A
S5 F5, JP1 U2 RVV: Rnwy 30R
FSS: BAKERSFIELD on Fld
TOWER 118.1 126.2 122.5R 227T
GND CON 121.9 BAKERSFIELD APP CON 118.8 126.2
115.4T BAKERSFIELD DEP CON 118.8
ILS 109.9 I-BFL Apch Brg 299°

BURBANK
LOCKHEED AIR TERMINAL *IFR* 3 NW (286° 3.3 fm Glendale Rbn.)
775 H69/15-33 (2) (S-80, T-150, TT-280) BL4, 6, 8A S5
F5, JP1, 4 U2 RVV: Rnwy 7 FSS: LOS ANGELES (DL)
REMARKS: Rnwy 15 displaced threshold 900 ft. S 6060 ft avbl lndg rnwy 15. Rnwy 33 displaced threshold 410 ft S. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
BURBANK TOWER 118.7 126.2 122.7R 260T
CLRNC DEL 118.0 BURBANK GND CON 121.9
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
TFC INFO Ctc Burbank A/C on 120.9 30 mi out.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS 109.5 I-BUR Apch. Brg 076°
VHF/DF[1] available, contact Tower.
REMARKS: [1]Unusable beyond 30 NM below 13,000' 360°-085°; below 4000' 085°-240°; below 6000' 240°-320°; below 10,000 320°-360°.
VOT: 110.0

CONCORD
BUCHANAN FIELD 2 NW (011° 17.5 NM from OAK VOR)
19 H50/1-19 (3) (S-60, T-80, TT-130) BL4 S5 F4
FSS: OAKLAND (DL)
TOWER[1] 119.7 122.4R 326T GND CON 121.9
REMARKS: [1]Tower operates 1500Z-0700Z

FRESNO AIR TERMINAL *IFR* 5 NE (133° 7.1 NM from FAT VOR
332 H92/11-29 (2) (S-40, T-55, TT-) BL4, 6, 8 S5
F4, JP1, JP4 RVV: Rnwys 11, 29 FSS: FRESNO on Fld
REMARKS: Rgt tfc rnwy 7 & 11
TOWER 118.7 126.2 122.7R 251T 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.6 119.1 122.5R
DEP CON 119.1
ILS 110.3 I-FAT Apch Brg 288°

FRESNO-CHANDLER *IFR* 2 W (168° 9.2 NM from FAT VOR)
283 H32/11L-29R (1) (Max 15) BL4, 6, 8A S5 F4 U2
FSS: FRESNO (DL)
REMARKS: Arpt clsd to all tfc btn 11 pm to SR. [1]Arpt clsd to acft weighing in excess of 12500 lbs. Rgt tfc rnwy 11L
CHANDLER TOWER [1]121.1 122.5R 278T
CHANDLER GND CON 121.7
RADAR SERVICES: (BCN)
FRESNO APP CON 119.6 119.1 122.5R
FRESNO DEP CON 119.1
REMARKS: [1]Oper 1400-0600Z.

CALIFORNIA—Continued

FULLERTON MUNI *IFR* 3 W (020° 6.5 NM from LGB VORTAC
96 H28/6-24 (1) (Max. 8) BL4, 11 S5 F4 U2
TPA: 24R 1200 REIL rnwy 24 FSS: LOS ANGELES
REMARKS: Rnwy 6 displaced threshold 437 ft E. 2683 ft avbl lndg rnwy 6. Rnwy 24 displaced threshold 263 ft W. 2557 avbl lndg rnwy 24. Rnwy 24 apch restricted by poleline-glide angle 13 to 1. Rgt tfc rnwy 24. Entry alt 1200 ft MSL.
TOWER 119.1 122.6R GND CON 121.7
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2

HAWTHORNE MUNI *IFR* 1 E (083° 4.5 NM from LAX VORTAC
64 H45/7-25 (1) (S-30, T-40, TT-) BL4, 11 S-5 F4
REIL rnwy 25. FSS: LOS ANGELES
REMARKS: Rnwy 7 displaced threshold 1025 ft E. 3975 ft avbl lndg rnwy 7. Runwy 25 displaced threshold 475 ft. 4525 ft avbl lndg rnwy 25. Prior apvl rqrd for single eng 100 HP or more. Rnwy 25 apch restricted by poleline-glide Angle 12 to 1. Rgt tfc E.
TOWER[1] 121.1 122.5R GND CON 121.9
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 124.3[2] 125.2[3]
REMARKS: [1]Oper 1500-0700Z. [2]045°-224°. [3]225°-044°.

HAYWARD AIR TRML *IFR* 2 SW (114° 5.9 NM from OAK VOR
46 H52/10R-28L (2) (S-100, T-190, TT-290) BL4 S5
FSS: OAKLAND (LC 0355Z)
REMARKS: Jet acft prohibited excp in emgcy.
TOWER 118.9 126.2 122.5R 212T GND CON 121.7
RADAR SERVICES:
OAKLAND APP CON 118.1 126.2 116.8T
OAKLAND DEP CON 124.7 120.9 116.8T

LONG BEACH *IFR* 3 NE (274° 4.4 NM from LGB VOR)
LONG BEACH (Daugherty Fld)
58 H100/12-30 (5) (S-90, T140, TT-240) BL4, 6, 8A
S5 F5, JP1, 4 U2 FSS: LOS ANGELES
REMARKS: Due non-vsby on some portions of arpt ctc twr itinerant acft ctc Long Beach apch ctl regardless of dist at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R
LONG BEACH TOWER 119.5 [2]120.5 [3]126.2 122.4R
LONG BEACH GND CON 121.9
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby
Alt 558
ILS 110.3 I-LGB Apch Brg 300°
VHF/DF available, contact Tower.
REMARKS: [2]069°-250° and for rnwys 25L, 34L, 34R, [3]251°-070° and for rnwys 25R, 16R, 16L, 07L or 12
VOT: 109.0

ANGELES INTL *IFR* 9 SW (071° 0.6 NM from LAX VOR)
126 H120/7R-25L (4) (S-150, T-200, TT-400) BL4, 6, 8A,
10, 11 S5 F5, JP1, 4 U2 VASI. Rnwy 7R
RVV: Rnwys 6, 24, 7R L RVR: Rnwy 25
FSS: LOS ANGELES on Fld
REMARKS: Rnwy 34 threshold displaced 1679 ft N. Rnwys
25L and 25R thresholds displaced 600 ft W.
TOWER 118.9 125.8 123.7[1] 122.7R
CLRNC DEL 118.6 126.85 121.4 GND CON 121.8
RADAR SERVICES:
APP CON 124.9[3] 119.3[4] 113.6T 109.9T
DEP CON 125.2[5] 124.3[3]
TFC INFO ctc APP CON 30 mi out.
PAR Rnwy 25R Coil 300 Vsby 3/4 mi Min alt 426 Rnwy
25L Coil 200 Vsby ½ mi Min alt 326 ASR Rnwys 6, 7R,
24[2], 25L Coil 500 Vsby 1 mi Min Alt 626
LS 109.9 I-LAX Apch Brg 248°
VHF DF avail, ctc twr.
VOT: 112.0

ANGELES (VAN NUYS)
N NUYS *IFR* 3 NW (BU LOM on fld)
00 H80/16R-34L (2) (S-50, T-70, TT-100) BL4 S-5
4, JP4, 5 U2 FSS: LOS ANGELES (DL)
EMARKS: Rnwy 16R threshold displaced 1376 ft S. 6624 ft
avbl lndg rnwy 16R. Rnwy 16L-34R daylgt use only. Rnwy
16L threshold displaced 1432 ft S. 2568 ft avbl lndg rnwy 16L.
Parallel 2000 ft strip bet 16L-34R and 16R-34L clsd except
emerg.
OWER 120.1 126.2 122.5R GND CON 121.7
ADAR SERVICES:
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
.S 109.5 I-BUR Apch Brg 076°

EREY PENINSULA *IFR* 3 SE (096° 4.3 NM from MR COM)
'0 H50/10-28 (2) (S-40, T-70, TT-120) BL4, 6, 8 S5
5, JP1 U2 FSS: SALINAS (DL)
EMARKS: Rnwy 28 has downgrade 1 ½ percent. Lndg acft
non-reversible propes ctn during hours of darkness
ONTEREY TOWER 119.9 122.5R 281T
MONTEREY GND CON 121.9
MONTEREY APP CON 120.8
MONTEREY DEP CON 120.8
.S 110.1 I-MRY Apch Brg 096°

OAKLAND
METROPOLITAN-OAKLAND INTL *IFR* 4 S (OAK VOR on field)
6 H100/11-29 (4) (S-100, T-160, TT-290) BL6, 8 S5
F5, TF1, JP4 U2 RVV: Rnwy 27R RVR: Rnwy 29
FSS: OAKLAND on Fld
REMARKS: Due non-vis of some areas ctc twr for instr. Rnwy
33 threshold displaced 2113 ft N. Rgt tfc rnwys 27R,
27L, 33 & 11.
OAKLAND TOWER 118.3 126.2 126.0 116.8T 341 T
266T CLRNC DEL 126.6 121.1
OAKLAND GND CON 121.9 121.6
RADAR SERVICES:
OAKLAND APP CON [1]118.1 116.8T [3]120.9
OAKLAND DEP CON 124.7
TFC INFO Coll APP CON 25 mi out.
PAR Rnwy 29 Coil 200 Vsby ½ mi Min Alt 206
ASR Rnwy 9L, 11, 27R, 29 Coil 400 Vsby 1 mi Min Alt
406
ILS 108.7 I-INB Apch Brg 299° 109.9 I-OAK Apch Brg
275°
VHF DF available, contact Tower.
REMARKS: [1]271-089° [2]090-270°
VOT: 110.2

ONTARIO INTL *IFR* 2 E
952 H100/7-25 (2) (S80, T120, TT220) BL6, 8A S5
F5, JP1, 4 U2 RVV: Rnwy 25 FSS: ONTARIO on Fld
REMARKS: Rnwy 7 threshold displaced 1000 ft E. 1000 ft
overrun E end rnwy 7-25.
TOWER 118.5 126.2 122.5R 215T CLRNC DEL 123.6
GND CON 121.9
RADAR SERVICES: (BCN)
MARCH APP CON 120.8 122.5R 111.4T
MARCH DEP CON 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255°

OXNARD
VENTURA COUNTY *IFR* 1 W (261° 5.5 NM from CAV RBN)
43 H59 7-25 (1) (S-100, T-135, TT-) BL4, 11 S5 F4
REIL rnwy 25. FSS: SANTA BARBARA (DL)
REMARKS: Rnwy 25 Threshold Displaced 1377 ft W. 4570 ft
avbl lndg rnwy 25. Rnwy 7 Threshold 750 ft E. 5197 ft avbl
lndg rnwy 7.
TOWER 120.7 122.5R GND CON 121.9
APP CON 124.7 122.5R

SACRAMENTO MUNI *IFR* 3 SW (015° 4.4 NM from SAC VOR
21 H60/2-20 (3) (S-90, T-120, TT-180) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 2 FSS: SACRAMENTO on Fld
REMARKS: Rnwy 16 apch restricted by antenna-glide angle
12 to 1.
TOWER 119.5 126.2 122.5R 260T GND CON 121.9
RADAR SERVICES:
APP CON 119.1 [1]134.1 123.6 [2]122.5R
DEP CON 124.5
ILS 110.3 I-SAC Apch Brg 015°
REMARKS: [1]Below 5000'. [2]5000' or above.

CALIFORNIA–*Continued*

SAN DIEGO CO·GILLESPIE FIELD 10 NE (065° 13.3 from SAN VOR)
385 H53/9-27 (2) (S-60, T-80, TT) BL4 S5 F4
U2 FSS: SAN DIEGO (LC 296-3181)
REMARKS: Rnwy 27 threshold displaced 1300 ft W. 4040 ft avbl lndg rnwy 27. Rnwy 17-35 restricted to acft under 12,500 lbs gwt.
GILLESPIE TOWER[1] 120.7 122.7R 379T
GILLESPIE GND CON 121.7
REMARKS: [1]Tower operates 1400-0600Z

SAN DIEGO INTL-LINDBERGH FLD *IFR* 2 W (LIF VOR on fld)
AOE
15 H81/9-27 (2) (S-200, T-200, TT-400) BL4, 6, 8A 11 S-5
F5, JP1 U2 REIL rnwy 27 FSS: SAN DIEGO on Fld
REMARKS: Rnwy 27 threshold displaced 600 ft W. 8100 ft avbl lndg rnwy 27. Rnwy 31 apch restricted by poleline-glide angle 5 to 1. VFR str-in apch rnwy 9 must maint min 700 ft MSL until 1.5 mi fm rnwy.
TOWER 118.3 126.2 122.5R 109.6T 245T GND CON 121.9
RADAR SERVICES: (BCN)
SAN DIEGO APP CON 119.6 127.7 126.2 125.7[1] 125.3[2] 122.7R 218T
SAN DIEGO DEP CON 125.7[3] 125.3[4]
TFC INFO Contact A/C over Oceanside, Jamul, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I-SAN Apch Brg 091°
REMARKS: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure.
VOT: 109.0

SAN FRANCISCO INTL *IFR* 8 SE (SFO VOR on fld)
10 H95/10-28 (4) (S-200, T-200, TT-400) BL6, 8A, 10, 11 S-5 F5, JP1 U2 VASI: Rnwy 19L RVV: Rnwys 1, 19
RVR: Rnwy 28R FSS: OAKLAND (DL)
REMARKS: Ctc twr for preferential rnwy system under VFR conditions. Rnwy 28R displaced threshold 200 ft NW. 9496 ft avbl lndg rnwy 28R. Rnwy 1R displaced threshold 1100 ft NE. 8400 ft avbl lndg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop. Ctc twr for taxy instr.
TOWER 120.5 126.2X 122.7R 121.4
GND CON 121.8
RADAR SERVICES:
APP CON 124.9[1] 126.2X 119.3[2] 111.2T 109.5T
DEP CON 124.4 128.5
PAR Rnwy 28L Ceil 300 Vsby 3/4 mi Min Alt 310.
Rnwy 28R Ceil 200 Vsby 1/2 mi Min Alt 210.
ASR Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 510.
Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 410.
ILS 109.5 I-SFO Apch. Brg 281°
VHF/DF available, contact tower.
REMARKS: [1]315°-134°, [2]135°-314°, PAR svc not avbl to rnwy 28L UFN.
VOT: 111.0

CALIFORNIA–*Continued*

SAN JOSE MUNI *IFR* 2 NW (SJC VOR on fld)
56 H78/12R-30L (2) (S-60, T-90, TT-) BL4, 8 S5
F4, JP1 U2 RVV: Rnwy 30L FSS: OAKLAND (OL)
REMARKS: Rnwy 30L threshold displaced 1475 ft NW. 6[illegible] ft avbl lndg rnwy 30L. Twr unable to see txwy A and NE patn.
TOWER 120.7 122.4R 248T GND CON [illegible]
RADAR SERVICES: (BCN)
MOFFETT APP CON 120.1 123.7 122.4R 110.9T [illegible]
MOFFETT DEP CON 121.3 122.4R 108.2T
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
REMARKS: IFF svc avbl

SANTA ANA
ORANGE COUNTY *IFR* 4 S (192° 0.3 NM from SNA VOR)
54 H49/1L-19R (1) (S-30, T-40, TT) BL4, 6 S-5 F4
U2 FSS: LOS ANGELES [illegible]
REMARKS: Limited itinerant parking.
TOWER[1] 119.9 122.5R GND CON [illegible]
RADAR SERVICES: (BCN)
EL TORO APP CON 121.3 134.1 124.1X 122.5R [illegible]
EL TORO DEP CON 121.3
REMARKS: [1]Operates 0600-2300

SANTA BARBARA MUNI *IFR* 7 W (197° 5.5 NM from SBA VOR)
14 H47/7-25 (3) (S-40, T-71, TT-117) BL4, 6, 8 S5
F5, JP5, U2 RVV: Rnwy 7
FSS: SANTA BARBARA [illegible]
REMARKS: Apch lgts 2900 ft long. Rnwy 25 overrun unlgtd. Rnwy 25 threshold displaced 296 ft W 4420 ft avbl lndg rnwy 25.
TOWER 119.7 122.7R 110.3T 338T GND CON [illegible]
APP CON 125.4
ILS 110.3 I-SBA Apch Brg 073°

SANTA MONICA MUNI *IFR* 3 E (SMO VOR on field)
175 H50/3-21 (1) (S-90, T-120, TT-) BL4 11 S5 F5
JP5 U2 REIL rnwy 21 FSS: LOS ANGELES [illegible]
REMARKS: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Txwy unligtd. Gen aviation after free first 6 hrs. Rgt tfc rnwy 3.
TOWER 120.3 122.5R GND CON
RADAR SERVICES:
LOS ANGELES APP CON 124.9[1] 119.3[2] 113.6T [illegible]
LOS ANGELES DEP CON 124.3[1] 125.2[2]
REMARKS: [1]045°-224°, [2]225°-044°
VOT: 110.2

SANTA ROSA
SONOMA COUNTY 6 NW (349° 25.5 NM from PYE VOR)
125 H50/1-19 (2) (S-80, T-130, TT-220) BL4 S5 F4
U2 FSS: [illegible]
TOWER[1] 118.5 122.5R GND CON [illegible]
REMARKS: [1]Operates 1400-0600Z

CALIFORNIA–Continued

CKTON METROPOLITAN *IFR* 3 S (304° 4 NM from SCK VOR)
27 H86/11 L-29R (4) (S-100, T-200, TT-400) BL6 S5
F4, TF1 U2 FSS: STOCKTON on Fld
TOWER 120.3 122.5R 230T GND CON 121.9
RADAR SERVICES:
APP CON 125.1 116.0T 109.1T 230T
ILS 109.1 I-SCK Apch Brg 291° BC Unusable

RANCE MUNI *IFR* 3 SW (135° 8.6 NM from LAX VOR)
101 H50/11L-29R (2) (S-30, T-50, TT-80) BL4 S5 F4
J2 TPAs: 29R 800 FSS: LOS ANGELES (DL)
REMARKS: Both ends rnwy 11L-29R displaced thresholds 550 ft. 4450 ft avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
TOWER[1] 118.1 122.5R GND CON 121.7
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 125.2[2] 124.3[3]
LONG BEACH DEP CON 127.2
REMARKS: [1]Tower oper 1800Z-SS Mon-Fri. 1700-SS Sat, Sun & holidays. [2]045° - 224°. [3]225° - 044°.

COLORADO

ORADO SPRINGS
TERSON FIELD *IFR* 6 SE (PEF VOR on fld)
172 H91/17-35 (3) (S-125, T-200, TT-400) BL4, 6, 8 S5
FS, JP1, 4 RVR: Rnwy 35 FSS: DENVER (LC ME4-3127)
TOWER 119.9 126.2 122.5R 215T GND CON 121.7
RADAR SERVICES:
COLORADO SPRINGS APP CON 118.5 126.2 122.5R 109.9T
COLORADO SPRINGS DEP CON 120.2
TFC INFO Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 300 Vsby 3/4 mi Min Alt 6472
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
LS 109.9 I-COS Apch Brg 346°
HF/DF available, contact tower.

ER
PLETON AIRFIELD *IFR* 4 E (213° 8.1 NM from DEN VOR)
331 H115/17-35 (4) (S-120, T-200, TT-350) BL4, 6, 8, 9
5 FS, JP1 VASI: Rnwys 8R, 17 RVV: Rnwy 35
VR: Rnwy 26L FSS: DENVER on Fld
EMARKS: Twr unable to determine whether acft are on correct final apch to rnwys 8L-26R and 8R-26L.
OWER 118.3 126.2 119.3 122.5R 335T
GND CON 121.9 121.7
ADAR SERVICES:
DENVER APP CON 119.5[1] 126.2 122.5R 120.5[2] 116.3T 110.3T 108.1T
DENVER DEP CON 124.8
TFC INFO Ctc APP CON 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
.S 110.3 I-DEN Apch Brg 256° 108.1 I-SPO Apch Brg 349°
HF/DF available contact tower.
EMARKS: [1]270° - 089°. [2]090° - 269°.
VOT: 111.0

COLORADO–Continued

GRAND JUNCTION
WALKER FIELD *IFR* 3 NE (110° 9.6 NM from GJT RBN)
4857 H54/11-29 (2) (S-60, T-80, TT-120) BL2, 4, 6, 7
S5 U2 FSS: GRAND JUNCTION on Fld
REMARKS: Rnwy 4-22 restricted to acft over 12,500 lbs.
TOWER 118.1 122.5R GND CON 121.9
GRAND JUNCTION APP CON 119.7 122.5R 112.4T 110.3T
ILS 110.3 I-GJT Apch Brg 110°

PUEBLO MEML *IFR* 5 E (248° 2.4 NM from PUB VOR)
4725 H85/7-25 (3) (S-90, T-129, TT-216) BL4, 6, 8 S5
F5 RVV: Rnwy 7 FSS: PUEBLO on Fld
TOWER 119.1 126.2 122.5R 285T GND CON 121.9
APP CON 120.1 126.2 119.1 116.7T
ILS 109.5 I-PUB Apch Brg 075°

CONNECTICUT

BRIDGEPORT MUNI *IFR* 3 SE (BDR VOR on fld)
9 H47/11-29 (3) (S-35, T-45, TT-) BL4, 6 S5 F5, JP1, 4
U2 FSS: WINDSOR LOCKS (LC ED 5-6097)
REMARKS: Apch to rnwys 16, 29 blkd by trees.
TOWER 120.9 122.5R 108.8T GND CON 121.9
WESTCHESTER APP CON 121.2 122.5R 3023.5RX

EAST HARTFORD
RENTSCHLER FIELD *IFR* 1 E (347° 7 NM from HFD VOR)
45 H58/18-36 (3) (S-46, T-75, TT-130) BL4 S5 F4
FSS: WINDSOR LOCKS (DL)
REMARKS: Clsd to public. US Customs-lndg rts arpt. Rnwy 18 apch restricted by poleline-glide angle 8 to 1. Attended 7am to midnite.
TOWER 119.9 126.2 GND CON 121.9
RADAR SERVICES:
BRADLEY APP CON 119.4 124.6 122.5R
BRADLEY DEP CON 125.35
REMARKS: [1]Twr oper 0200-1800Z

WINDSOR LOCKS
BRADLEY FIELD *IFR* 3 W (058° 4.5 NM from BD LOM)
173 H95/6-24 (3) (S-100, T-200, TT-400) BL4, 6, 8 S5
F5, JP4, 5 U2 FSS: WINDSOR LOCKS on Fld
REMARKS: Rnwy 6-24 A-Gear both ends.
TOWER 120.3 126.2 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 119.4 124.6 122.5R
DEP CON 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I-BDL Apch Brg 058°
REMARKS: Glide slope rnwy 6 unusable below 373 ft.

DELAWARE

WILMINGTON
GREATER WILMINGTON *IFR* 4 S (EWT VOR on fld)
79 H70/1-19 (3) (S-200, T-300, TT-500) BL4, 6, 8 S5
F4, JP1 U2 **FSS:** MILLVILLE (LC 652-5419)
REMARKS: Ils apch zone rnwy 1 has penetrations in the 50:1 plane. Rnwy 5-23 clsd acft over 12, 500 lbs.
NEW CASTLE TOWER 120.3 122.5R 110.3T
NEW CASTLE GND CON 121.9
NEW CASTLE APP CON 120.7 110.3T
ILS 110.3 I-ILG Apch Brg 014°
VHF/DF available, contact tower

DISTRICT OF COLUMBIA

WASHINGTON
DULLES INTL *IFR* 21 W (186° 7.3 NM from PLV RBN)
313 H115/1L/19R (3) (S-200, T-290, TT-500) BL6, 8A, 10, 14, 15 S5 F5, JP1, 5 U2 **VASI:** Rnwy 12
RVR: Rnwy 1R **FSS:** WASHINGTON (DL)
TOWER 119.7 122.7R
CLRNC DEL 127.4 **GND CON** 121.65 121.9
RADAR SERVICES: (BCN)
APP CON 125.0 126.1
DEP CON 125.55
PAR Rnwy 1R Ceil 200 Vsby 1/2 mi Min Alt 513
ASR Rnwys 1R, 1L 12, 19L, 30 Ceil 400 Vsby 1 mi Min Alt 713
ILS 111.3 I-DLX Apch Brg 186 109.3 I-DIA Apch Brg 006°

WASHINGTON NATIONAL *IFR* 3 S (DCA VOR on fld)
15 H69/18-36 (3) (S-100, T-200, TT-400) BL4, 6, 8A, 10, 11, 15 S5 F5, JP1 U2 **VASI:** Rwy 15
RVV: Rnwys 18, 15 **RVR:** Rnwy 36
FSS: WASHINGTON on Fld
REMARKS: No acft over 120,000 lbs w/o prior apvl. Very limited parking.
TOWER 119.1[1] 122.5R
CLRNC DEL 127.7 **GND CON** 121.7
RADAR SERVICES:
APP CON 120.8[2] 134.1[3] 127.0 122.5R 118.3[1] 109.9T 3023.5R 278T
DEP CON 118.1[1] 126.55[2]
TFC INFO Ctc APP CON on 119.3 120.1
PAR Rnwy 36 Ceil 200 Vsby 1/2 mi Min Alt 215
ILS 1099 I-DCA Apch Brg 003°
VHF/DF available, contact tower
REMARKS: [1]West [2]East [3]Andrews Sector. Circling. PAR avbl on 15 min notice durg VFR wx conditions.
VOT: 108.2

FLORIDA

DAYTONA BEACH MUNI *IFR* 3 SW (156° 7.4 NM from DAB VOR)
34 H57/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5
F4, JP1 U2 **FSS:** ORLANDO (LC255-4767)
TOWER 120.7 126.2 122.5R 353T **GND CON** 121.9
RADAR SERVICES:
APP CON 123.9 122.5R 112.5T 109.7T
ILS 109.7 I-DAB Apch Brg 065°

FT LAUDERDALE-HOLLYWOOD INTL *IFR* 3 SW (FLL VOR/DME fld) AOE
10 H74/9-27 (3) BL4 S5 F5, JP1 U2
FSS: MIAMI
REMARKS: Rnwy 9-27 thresholds displaced 600 ft bcth ends.
FORT LAUDERDALE TOWER 119.3 122.5R 111.3T 3023.5R 212T
FORT LAUDERDALE GND CON 121.7
RADAR SERVICES: (BCN)
MIAMI APP CON 123.9 119.7
MIAMI DEP CON 123.9 119.7

HOLLYWOOD
NORTH PERRY 5 W (224° 6.2 NM from FLL VOR)
9 H31/4-22 (4) BL4 S5 F4
FSS: MIAMI (LC 523-4...
TOWER[1] 121.3 122.4R
REMARKS: [1]Oper 1200-0200Z daily. Oper by county.

JACKSONVILLE
IMESON *IFR* 5 N (250 3.5 NM from JAX VOR)
52 H79 5-23 (3) (S-105, T-137, TT-205) BL4, 6, 8A S5
F5, JP4 U2 **RVV:** Rnwy 5 **FSS:** JACKSONVILLE
REMARKS: Caution on ILS apchs. Brightly lighted bridge 1 1/4 mi SW of apch end of rnwy 5 could give false sense of being o rnwy dur poor vis conditions. Rnwy 18-36 clsd dalgt VFR operns. Rnwy 5 clsd to indgs, first 1000' ...s for tkof. Clsd dalgt hrs on intermittant basis.
JACKSONVILLE TOWER 118.3 126.2 122.5R 118.3T
JACKSONVILLE GND CON 121.9
RADAR SERVICES:
JACKSONVILLE APP CON 119.0 126.2 122.5R 109.3 114.5T 110.3T
JACKSONVILLE DEP CON 124.9 126.2
TFC INFO Ctc APP CON on 119.0 25 mi out
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 4...
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 55...
ILS 110.3 I-JAX Apch Brg 045°
VHF/DF available, contact tower
VOT: 111.0

KEY WEST INTL *IFR* 2 E (137° 1.7 NM from EYW VOR)
4 H48/9-27 (1) (S-30, T-40, TT-) BL4 S3 F4
FSS: KEY WEST ...
REMARKS: Fee for commercial and hired acft only. ... rnwy 9
TOWER[1] 119.5 122.5R
GND CON 121.9 **VFR ADV** Ctc Key West ...
NAVY KEY WEST APP CON 118.7 126.1 ...
REMARKS: [1]Oper 1100-0300Z

LAKE CITY MUNI 3 E (182 19NM from TAY VOR)
202 H68 10-28 (5) BL4 F4 UI
FSS GAINES...
TOWER [1]126.2 122.8R
REMARKS: [1]Oper 1300-2130 Mon-Fri; Controls M... Traffic Only

FLORIDA–Continued

BOURNE

HN F KENNEDY MEML *IFR* 2 NW (MLB VOR on Fld)
32 H112/9-27 (3) (S-30, T-40, TT) BL4 S5 F4, JP5
FSS: MELBOURNE on Fld
REMARKS: 9603' rnwy 9-27 available ngts, displaced threshold rnwy 27 1589' W
MELBOURNE TOWER [1]118.2 122.7R
RADAR SERVICES:
PATRICK APP CONN 118.4
PATRICK DEP CON 118.4
REMARKS: [1]Oper 1130-0230Z daily

I INTL *IFR* 8 NW (138° 13.2NM from MIA VOR AOE
) H10S 9L-27R (4) (S-200, T-200 TT-400) BL4, 6, 8A, 10
55 FS, JP1, 5 VASI: Rnwy 12 RVV: Rnwys 9L, 27L
FSS: MIAMI on Fld
REMARKS: Fee.
TOWER 118.3 126.2 122.4R 278T CLRNC DEL 127.5
GND CON 121.8
RADAR SERVICES: (BCN)
APP CONN 118.1[1] 123.7[2] 122.4R
DEP CON 123.9 119.7
TFC INFO Ctc Twr 20 mi out or remain above 2500'.
ASR Rnwys 9L, 12, 27L, 27R Coil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Coil 400 Vsby 1 mi Min Alt 409
LS 110.3 I-MFA Apch Brg 086° 109.5 I-MIA Apch Brg 266°
/HF/DF available, contact Tower.
REMARKS: [1]090°-269° [2]270°-089°, 1400' MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended.
/OT 112.0

I
A LOCKA *IFR* 10 NW (107° 9.8 NM from MIA VOR)
H80/9L-27R (5) BL4, 6 S5 F5, JP1
FSS: MIAMI (LC 634-7687)
EMARKS: Displaced thresholds all rnwys except 9L-27R. Birds in vcnty and on rnwys.
OWER [1]120.7 122.7R GND CON 121.9
ADAR SERVICES: (BCN)
MIAMI APP CON 123.7 118.1
MIAMI DEP CON 123.9 119.7
EMARKS: [1]Oper 1100-0300Z.

I
MIAMI 8 W (159° 14 NM from MIA VOR)
0 H38/14-32 (3) BL4 S5 F4 FSS: MIAMI (LC 634-7687)
EMARKS: Rgt tfc rnwys 9, 14.
OWER 121.1 122.6R GND CON 121.7
ADAR SERVICES:
MIAMI DEP CON 123.9[1] 119.7[2]
EMARKS: [1]270° - 089° [2]090° - 269°.

FLORIDA–Continued

ORLANDO

HERNDON *IFR* 3 E (ORL VOR on Fld)
113 H60/7-25 (2) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 RVV: Rnwy 7 FSS: ORLANDO on Fld
REMARKS: NW-SE rnwy NW Indg 5178' avbl, SE 5010' avbl.
TOWER 118.7 126.2 122.5R 112.2T 109.9T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
ORLANDO APP CON 119.4 124.8 122.5R 112.2T 109.9T ORLANDO DEP CON 121.1
TFC INFO Ctc APP CONN on 124.8 25 mi out.
ASR Rnwys 7,13 Coil 500 vsby 1 mi Min Alt 613. Rnwys 25, 31 Coil 400 vsby 1 mi Min Alt 513
ILS 109.9 I-ORL Apch Brg 066°

PENSACOLA MUNI *IFR* 3 NE (343° 1.8 NM from PNS RBN
118 H50/16-34 (2) (S-60, T-80, TT) BL4, 6, 8 S3
F4, JP1 U2 RVV: Rnwy 16 FSS: PENSACOLA on Fld
TOWER 119.9 126.2 122.5R 109.5T 326T
GND CON 121.9
RADAR SERVICES:
APP CON 123.9[1] 134.1 122.7R 120.1 119.0[2]
DEP CON 119.0[2] 134.1 123.9[1]
TFC INFO Ctc APP CON on 119.0 for acft Eastbound or arriving fm the East or on 123.9 for acft Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163°
REMARKS: [1]West [2]East

ST AUGUSTINE

FAIRCHILD - ST AUGUSTINE 3 N (118° 32.8 NM from NZC VOR)
10 H50/13-31 (2) S5 F5
FSS: JACKSONVILLE (LC EL5 3601)
REMARKS: Rnwy 2-20 and 6-24 clsd to acft over 12,500 lbs when twr not in opern.
TOWER [1]126.2 123.1T 122.5R 118.3R
REMARKS: [1]Oper 1230-2115Z Mon-Fri

ST PETERSBURG-CLEARWATER INTL *IFR* 8 N (PIE VOR on Fld)
10 H80/17-35 (3) (S-60, T-120, TT-240) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 17 FSS: TAMPA (DL)
REMARKS: Rnwy 4-22 clsd to night ops UFN.
TOWER 118.3 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T TAMPA DEP CON 126.5
ILS 109.1 I-PIE Apch Brg 170°

SARASOTA - BRADENTON *IFR* 3 N (SRQ VOR on FLD
24 H50/13-31 (3) (S-30, T-40, TT) BL4, 6 S5
F4, JP5 U2 FSS: TAMPA (DL)
REMARKS: Rnwy 9-27 and Txwy Btn Rnwys 31 & 32 clsd to acft in excess 12,500 lbs.
TOWER [1]120.1 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T TAMPA DEP CON 126.5
REMARKS: [1]Oper 1100-0300Z.

FLORIDA–*Continued*

TALLAHASSEE MUNI *IFR* 4 SW (140° 2.4 NM from TLH RBN
81 H61/18-36 (2) BL4, 6, 8 S5 F4, JP4 U2
RVV: Rnwy 36 FSS: TALLAHASSEE on Fld
TOWER 118.7 126.2 122.5R 117.5T 110.3T
CLRNC DEL 121.9 GND CON 121.9
APP CON 118.1 122.5R 117.5T 110.3T
DEP CON 118.1
ILS 110.3 I-TLH Apch Brg 358°
VOT: 111.0

TAMPA INTL *IFR* 3 W (063° 8.7 NM from PIE VOR AOE
27 H 83/181-36R (3) (S-80 T-120, TT-270) BL4, 6, 8A, 14
S3 F5, JP1, 4, 5 RVR: Rnwy 18L FSS: TAMPA on Fld
REMARKS: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 Lbs Gwt.
TOWER 119.9 126.2 122.5R 110.3T
GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T
DEP CON 126.5
ILS 110.3 I-TPA Apch Brg 181°
VOT: 111.0

WEST PALM BEACH
PALM BEACH INTL *IFR* 3 W (095° 2.8 NM from PBI VOR AOE
19 H80/9-27 (2) (S-95, T-200, TT-350) BL4, 6, 8A S5
F5, JP4 RVV: Rnwy 9 FSS: VERO BEACH (LC 832-5697)
REMARKS: Rgt tfc rnwys 9 and 13.
TOWER 119.1 126.2 122.7R 115.5T 109.3T 356T 278T
GND CON 121.9
APP CON 118.0 122.7R 115.5T 109.3T 356T
ILS 109.3 I-PBI Apch Brg 093°
VOT: 109.0

GEORGIA

ATLANTA MUNI *IFR* 3 E (016° 8.1 NM from ATL VOR)
1024 H78/9-27 (3) (S-120, T-, TT) BL4, 6, 8 S4
F5, JP1 U2 VASI: Rwy 27 RVR: Rwy 9
FSS: ATLANTA (LC 344-1551)
TOWER 119.1 122.7R CLRNC DEL 121.6
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.7[1] 118.1[2] 109.9T 109.3T
TERM CON 119.3 (S of V18N) 119.8 (N of V18N)
DEP CON 125.7
TFC INFO Inbnd acft ctc app con 25 NM out.
PAR Rwy 9 ceiling 200 vsby ½ mi min alt 1224.
ASR Rwys 3, 27, 33 ceiling 400 vsby 1 mi min alt 1424.
Rwys 9, 15 ceiling 500 vsby 1 mi min alt 1524.
ILS 109.9 I-ATL Apch brng 089° 109.3 I-AZA Apch brng 329° BC unusable 110.5 I-ALR Apch brng 089°

GEORGIA–*Continued*

ATLANTA
DEKALB-PEACHTREE *IFR* 8 NE (241° 9.7 NM from OCP VC
1002 H40/16-34 (3) (Max 30) BL4, 6, 8 S5 F4, JP4
FSS: ATLANTA (LC 344-1[illegible]
REMARKS: Ctl twr unable to see first 850' rnwy 9.
PEACHTREE TOWER [1]121.3 122.5R
PEACHTREE GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
REMARKS [1]Oper 1200-0400Z.

ATLANTA
FULTON COUNTY *IFR* 6 W (FTY VOR on Fld)
834 H52/8-26 (2) (Max 22) BL4 S5 F5, JP4
FSS: ATLANTA on F
TOWER 118.5 122.5R 245T GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
VHF/DF available, contact tower.

AUGUSTA
BUSH FIELD *IFR* 6 S (128° 6.4 NM from AGS RBN)
145 H80/17-35 (2) (S-90, T-120, TT) BL4, 6, 8 S5
FT, JP1, 4 U2 FSS: AUGUSTA on F
AUGUSTA TOWER 118.7 126.2 122.5R 110.5T
AUGUSTA GND CON 121.9
AUGUSTA APP CON 125.4 122.5R 113.9T 110.5T
385T
ILS 110.5 I-AGS Apch brng 348° BC unusable

COLUMBUS
MUSCOGEE COUNTY *IFR* 4 NE (147° 6.8 NM from CSG VOR
397 H50/5-23 (2) (S-60, T-80, TT) BL4, 6 S5
F5, JP5 U2 FSS: ATLANTA (LC 3[illegible]
REMARKS: Rnwy 12 clsd to ngt lndgs. Rnwy 30 clsd to [illegible] tkofs.
COLUMBUS TOWER 120.1 122.5R
COLUMBUS GND CON 121.9
COLUMBUS APP CON 125.3 122.5R 110.3T 335
ILS 110.3 I-CSG Apch brng 052° BC unusable

MACON MUNI *IFR* 9 S (MCN VOR on Fld)
354 H50/5-23 (2) (S-60, T-, TT) BL4, 6, 8 S3
F5, JP1 U2 FSS: MACON on F
TOWER 118.3 122.5R 109.5T GND CON 121.7
RADAR SERVICES: (BCN)
APP CONN 119.6 134.1 124.2 122.7R 114.2T 135.5
DEP CON 124.8
ASR Rwys 5, 13, 23 ceiling 500 vsby 1 mi min alt 854.
ILS 109.5 I-MCN Apch brng 047°
VHF/DF available, contact tower.

GEORGIA—Continued

JNNAH
AVIS FIELD *IFR* 7 NW (246° 4.3 NM from SAV VOR
0 H90 9-27 (3) (S36, T62, TT106) BL4, 6, 8 S5
4, JP5 RVV: Rwy 9 FSS: SAVANNAH on Fld
EMARKS: Rnwy 27 threshold displaced 400'. Fuel avbl 7AM-10PM unless prior req. Rnwy 23 restricted to 3500' for large acft.
AVANNAH TOWER 119.1 126.2 122.5R 110.1T
SAVANNAH GND CON 121.9
ADAR SERVICES: (BCN)
SAVANNAH APP CON 125.3 126.2 122.7R 121.1 112.7T 3023.5R
SAVANNAH DEP CON 125.7
.S 109.9 I-SAV Apch brng 092°
EMARKS: VOT: 111.0

IDAHO

AIR TERMINAL *IFR* 3 S (BOI VOR on Fld)
:58 H74 IDL-28R (2) (S100, T-185, TT-300) BL4, 6, 8
; FS, JP1, 4 U2 RVV: Rnwy 10L
FSS: BOISE on Fld
EMARKS: Rnwys 28L-10R and 28L-10R subject to closure during periods of const. Rgt tfc rnwys 10R, 28R
OWER 118.1 126.2 122.5R GND CON 121.7
APP CON 120.5 126.2 122.5R 118.1 113.3T 109.9T
S 109.9 I-BOI Apch brng 096°

FALLS
NING FIELD *IFR* 2 NW (IDA VOR on Fld)
39 H75 2-20 (2) (S-30, T-90, TT-150) BL4, 6 S5
, JP5 FSS: IDAHO FALLS on Fld
EMARKS: Rnwy 20 threshold displaced 930 ft SW. 6600 ft avbl lndg rnwy 20. Rnwy 16 threshold displaced 655ft S. 8495 ft avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
WER [1]118.5 122.5R 206T GND CON 121.7
MARKS: [1]Oper 1400-0600Z

'ELLO MUNI *IFR* 7 NW 032° 3.1 NM from PIH VOR
38 H82/3-21 (3) (S30, T80, TT130) BL4, 6 S5 F4 U2
'V: Rwy 21 FSS: POCATELLO on Fld
WER 119.1 122.5R GND CON 121.9
S 110.3 I-PIH Apch brng 207°

ILLINOIS

CHAMPAIGN
UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4 SSW (CMI VOR on field
753 H53 13-31 (3) (S75, T100, TT) BL4 S5 F4, JP1
U2 FSS: CHAMPAIGN on Fld
REMARKS: use rnwys - turf usable by permission.
CHAMPAIGN TOWER 120.5 122.5R 3023.5Rx 233T
CHAMPAIGN GND CON 121.9
CHAMPAIGN APP CON 119.8 122.5R 120.5 110.0T 233T
ILS 109.1 I-CMI Apch brng 313°

CHICAGO (West Chicago)
DUPAGE COUNTY *IFR* 3 NW (069° 4.3 NM from DPA VOR)
758 H40 10-28 (3) (Max-15) BL4, 9° S5 F4 U2
FSS: JOLIET (DL)
REMARKS: *Non-standard, 1000' down cntr-line. Rnwy 5-23 clsd to all twin eng acft in winds blo 15 kts. All txwys lgtd until 10 PM.
TOWER 120.9 122.5R 342T
GND CON 121.7
REMARKS:[1] TWR oper 1200-0400Z.

CHICAGO
MERRILL C MEIGS FIELD 1 E (117° 15.1 NM from ORD VOR
592 H39/18-36 (1) (MAX 15) BL6 F4 JP1 U2
FSS: JOLIET (DL)
REMARKS: U.S. Customs lndgs rts arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1, 500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear afct. (3) 25 knots or more to all acft. Fld clsd daily to all operns btn hrs 2200 and 0600 lcl time due, no safety or svcs facs; no lgtg excpt obstn lgts dur this period. Rgt tfc N.
MEIGS TOWER [1]121.3 127.8 122.5R
GND CON MEIGS GND CON 121.9
VFR ADV Ctc twr on 127.8 at least 10 mi out.
REMARKS: [1]Oper 1200-0400Z.

CHICAGO-MIDWAY *IFR* 9 SW (132° 5 NM from MD LOM) AOE
619 H65/13R-31L (6) (S-130, T-200, TT-400) BL2, 4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 13R FSS: JOLIET (DL)
REMARKS: Customs svc avbl 0800-1700 cst Mon-Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
MIDWAY TOWER 118.7 126.2 123.7 122.7R 109.9T 109.5T MIDWAY GND CON 121.7
RADAR SERVICES:
CHICAGO APP CON 119.5 126.2 124.7 124.2 122.6R 118.4 111.6T 110.1T 109.7T
CHICAGO DEP CON[1] 124.2 119.2
PAR Rnwy 13R Ceiling 300 Vsby ¾ mi Min Alt 919
ASR Rnwys 4L, 4R, 9R, 13L, 13R, 18R, 27L, 31L, 31R, 36L Ceiling 500 Vsby 1½ mi Min Alt 1119. Rnwys 22L, 22R Ceiling 600 Vsby 1½ mi Min Alt 1219
ILS 109.9 I-MDW Apch Brng 132° BC unusable 109.5 I-MXT 312°
VHF/DF Available, contact Tower.
REMARKS:[1] Midway tower provides RADAR coverage to departure acft in the immediate area of Midway. PAR unusable frm MM to touchdown.
VOT: 111.0

ILLINOIS–Continued

CHICAGO-O'HARE INTL *IFR* 14 NW (ORD VOR on field)
667 H116/14R-32L (5) (S-120, T-200, TT-375) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 RVV: Rnwys 14L, 32L, 32R/27, 9/4
RVR: Rnwy 14R FSS: JOLIET (DL)
O'HARE TOWER 118.1 126.2 122.6R 120.7 111.6T 110.1T 109.7T
CLRNC DEL 121.8 O'HARE GND CON 121.9
RADAR SERVICES: (BCN)
CHICAGO APP CON 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 111.6T 110.1T 109.7T
CHICAGO DEP CON 125.4 125.0 124.2
TFC INFO all inbnd acft ctc Chicago APP CON
PAR Rnwys 14R, 27, 32L Ceiling 200 Vsby ½ mi Min Alt 867. Rnwys 4, 14L, 22, 32R Ceiling 300 Vsby ¾ mi Min Alt 967
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceiling 400 Vsby 1 mi Min Alt 1067
ILS 109.7 I-ORD Apch Brng 138°(14R) 110.1 I-OHA Apch Brng 138°(14L) 110.5 Apch Brng 268° 109.1 I-RVG Apch Brng 318°
VHF/DF Available, contact Tower
REMARKS: [1] 180°-359°. [2]360°-179°. On apch to rnwy 22 do not descend below 1200' MSL til Radar advises passing twr 926' MSL 4.2 mi fm end of rnwy.
VOT: 112.0

MOLINE
QUAD CITY *IFR* 3 S (086° 4.4 NM from ML LOM)
590 H55/9-27 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F5, JP4
U2 RVV: Rnwy 9 FSS: MOLINE on Fld
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
MOLINE TOWER 118.5[1] 122.5R 110.3T
MOLINE GND CON 121.9
VFR ADV Ctc APP CON on 119.4
MOLINE APP CON 119.4 114.4T 111.2T 110.3T 224T
ILS 110.3 I-MLI Apch Brng 086°
REMARKS: [1]Prim civil local ctl.

PEORIA
GREATER PEORIA *IFR* 4 W (095° 4 NM from PIA VOR)
659 H70/12-30 (4) (S-60, T-80, TT-) BL4, 6, 8 S5 F5, JP1
U2 FSS: JOLIET
REMARKS: Rnwy 18 clsd air carrier ngt lndgs.
PEORIA TOWER 119.1 125.8 122.5R
PEORIA GND CON 121.9 VFR ADV Ctc APP CON
PEORIA APP CON 125.8 122.5R 115.2T 109.9T 3023.5R
ILS 109.9 I-PIA Apch Brng 303°

ROCKFORD
GREATER ROCKFORD *IFR* 4 S (114° 6 NM from RFD VOR)
735 H60/18-36 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F4, JP1
RVV: Rnwy 36 FSS: ROCKFORD on Fld
ROCKFORD TOWER 118.3 122.5R 109.3T 362T
ROCKFORD GND CON 121.9
VFR ADV Ctc APP CON on 124.9
ROCKFORD APP CON 124.9 118.3 122.5R
ILS 109.3 I-RFD Apch Brng 002°

ILLINOIS–Continued

SPRINGFIELD
CAPITAL *IFR* 3 NW (216° 3.2 NM from CAP VOR)
593 H70/4-22 (3) (S-75, T-150, TT-) BL4, 6, 8 S5 F4, JP
U2 RVV: Rnwy 4 FSS: VANDALIA
TOWER 121.3 122.5R 239T
GND CON 121.9
VFR ADV Ctc APP CON on 118.6 aprx 25 NM out
SPRINGFIELD APP CON 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I-SPI Apch Brng 038°

INDIANA

EVANSVILLE
DRESS MEMORIAL *IFR* 3 N (057° 12.4 NM from EVV VOR)
389 H60/3-21 (3) (S-70, T-90, TT-) BL4, 6 S5 F5, JP
FSS: EVANSVILLE
REMARKS: P-Line apch rnwy 31. Acft not vis on final apch rnwy 9 within 1500' apch end at alt of 100' AGL or be
EVANSVILLE TOWER 118.7 122.5R
EVANSVILLE GND CON 121.9
EVANSVILLE APP CON 119.4 122.5R 118.7 113.3T 109.9T
ILS 109.9 I-EVV Apch Brng 215° BC unusable

FT. WAYNE
BAER FIELD *IFR* 6 SSW (FWA VOR on field)
801 H80/4-22 (3) (S-90, T-120, TT-) BL4, 6, 8 S5 F5
U2 RVV: Rnwy 31 FSS: FORT WAYNE
REMARKS: P-Line apch rnwy 31.
FORT WAYNE TOWER 119.1 126.2 122.5R 278T
FORT WAYNE GND CON 121.9
RADAR SERVICES: (BCN)
FORT WAYNE APP CON 125.5 127.2 126.2 122.5R 117.8T 109.9T 251T FORT WAYNE DEP CON
TFC INFO Inbnd VHF equipped acft ctc APP CON at least 15 NM out.
ASR Rnwys 27,31 Ceiling 400 Vsby 1 mi Min Alt
Rnwy 22 Ceiling 500 Vsby 1 mi Min Alt
ILS 109.9 I-FWA Apch Brng 315°
REMARKS: Do not descend below 1500' MSL til radar
passing fix 3 miles fm end of rnwy 22 due to
3.8 miles NE.
VOT: 111.0

INDIANA – *Continued*

ANAPOLIS MUNI (Weir Cook) 7 SW (142° 6.1 NM from IND VOR)
797 H76 13-31 (2) (S-90, T-135, TT-300) BL6, 8A, 10 S-5
F4, JP1, 4 U2 VASI: Rnwy 22 RVR: Rnwy 4
FSS: INDIANAPOLIS on Fld
REMARKS: Fee multi-eng commercial acft. 700' astn NE end rnwy 4 - 22 clsd.
TOWER 120.9 126.2 122.5R 121.3 116.3T 109.3T
CLRNC DEL 125.7 GND CON 121.9
RADAR SERVICES:
APP CON 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T 109.3T DEP CON 121.1 121.3
TFC INFO Ctc APP CON on 119.3 118.5 or 118.1
PAR Rnwy 4 Ceiling 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 33 Ceiling 400 Vsby 1 mi Min Alt 1197
ILS 109.3 I-IND Apch Brng 044° 110.5 I-COA Apch Brng 313°
VHF DF available, contact Tower.
REMARKS: [1]220°-044° [2]045°-219°
VOT: 109.0

CIE
LAWARE COUNTY 3 N (065° 14.3 NM from AID RBN)
937 H51 14-32 (2) (S-70, T-90, TT-150) BL4 S5 F4 U2
FSS: INDIANAPOLIS (DL)
REMARKS: Unlgtd voltage twr line in NW apch 3480' of end rnwy 14.
MUNCIE TOWER[1] 120.1 122.5R
MUNCIE GND CON 121.9
RADAR SERVICES:
INDIANAPOLIS CENTER APP CON 124.8
INDIANAPOLIS CENTER DEP CON 124.8
REMARKS: [1]Oper 1200-0400Z.

H BEND
JOSEPH COUNTY *IFR* 3 NW (180° 3.7 NM from SBN VOR)
78 H60/9-27 (4) (S-110, T-145, TT-) BL4, 6, 8 S-4 F5
J2 RVV: Rnwy 27 FSS: SOUTH BEND on Fld
EMARKS: P-lines NE, S.
OUTH BEND TOWER 118.9 122.5R 115.4T 109.3T
SOUTH BEND GND CON 121.9
SOUTH BEND APP CON 121.0 122.5R 115.4T 109.3T
LS 109.3 I-SBN Apch Brng 269°

E HAUTE
LMAN FIELD *IFR* 5 E (229° 3 NM from HUF VOR)
85 H90/5-23 (3) (S-80, T-105, TT-) BL 4, 6 S3 F4 U2
FSS: TERRE HAUTE on Fld
EMARKS: 1254' overrun NE end rnwy 5. No service or maintenance avbl 0330-1200Z unless prior notice. Extremely lmtd parking. Rnwy 18-36 clsd to acft over 25,000 lbs.
OWER 118.3 126.2 122.5R
GND CON 121.9 VFR ADV Ctc APP CON
APP CON 123.8 126.2 122.5R 118.3
LS 109.7 I-HUF Apch Brng 045°

IOWA

CEDAR RAPIDS MUNI *IFR* 5 SSW (088° 2.8 NM from CID VOR)
863 H70 8-26 (2) (S-100, T-135, TT-) BL 4, 6, 8 S-5 F5, TF-1 U2 FSS: CEDAR RAPIDS on Fld
REMARKS: Eastern N S txwy 1500 x 75' and sod areas avbl as rnwy dur strong N S winds.
TOWER 118.7 122.5R 117.6T 109.3T 278T
GND CON 121.9 VFR ADV Ctc APP CON on 119.9
APP CON 119.9 122.5R 118.7 117.6T 109.3T 278T
ILS 109.3 I-CID Apch Brng 085° BC unusable.

DES MOINES MUNI *IFR* 3 SW (349° 5.4 NM from DSM VOR)
957 H90/12-30 (3) (S-90, T-135, TT-300) BL4, 6, 8 S-5
F5, JP4 U2 RVV: Rnwy 30 FSS: DES MOINES on Fld
REMARKS: Rnwy 17-35 restricted to acft not over 25,000 lbs.
TOWER 118.3 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 124.9 122.5R 119.3 114.1T 110.3T 212T
DEP CON 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi Min Alt 1357
ILS 110.3 IDSM Apch Brng 305° BC unusable

SIOUX CITY MUNI *IFR* 6 S (312° 3.6 NM from SUX VOR)
1097 H90 13-31 (3) (Max 2.25) BL4, 6, 8, 11 S-5 F5, JP-1 U2 RVV: Rnwy 31 REIL rnwy 13 FSS: SIOUX CITY on Fld
REMARKS: First 1500' rnwy 22 not vis to tower.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 118.7 126.2 124.6 122.5R 116.5T 109.3T 335T
ILS 109.3 I-SUX Apch Brng 307°
VHF/DF available, contact Tower.

WATERLOO MUNI *IFR* 4 NW (ALO VOR on fld)
870 H54/12-30 (3) (S-80, T-105, TT-) BL4, 6, 8 S-5
F4, JP1 U2 RVV: Rnwy 12 FSS: WATERLOO on Fld
TOWER 118.1 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.8
APP CON 125.8 122.5R 109.9T 108.2T
RADAR SERVICES:
ILS 109.9 I-ALO Apch Brng 123°

KANSAS

HUTCHINSON MUNI *IFR* 3 E (032° 5 NM from HUT VOR)
1542 H70/13-31 (3) (S-40, T-55, TT-) BL4, 6,8 S-5 F4
FSS: HUTCHINSON on Fld
REMARKS: Certain rnwys and txwys may be clsd for const.
TOWER 118.5 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.5
APP CON 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brng 128°

KANSAS–*Continued*

KANSAS CITY
FAIRFAX MUNI *IFR* 3 NE (177° 7.5 NM from MKC VOR)
746 H73/17-35 (4) (S- , T-75, TT-170) BL6 S-5 F-5, JP-1
U2 FSS: KANSAS CITY (LC GRI-4572)
REMARKS: Tfc ptn alt for acft under 12,500 lbs GWT is 600 ft AGL, vsby N and NW greatly reduced.
TOWER 119.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
KANSAS CITY APP CON 126.2 122.7R 121.1[1] 119.5[2]
112.6T 109.9T KANSAS CITY DEP CON 118.1
REMARKS: [1]W Sector [2]E Sector

TOPEKA
PHILIP BILLARD MUNI *IFR* 3 NE (210° 4.9 NM from TOP VOR)
880 H51/13-31 (3) (S-60, T-80, TT-) BL4, 6 S-5 F-5 U2
FSS: TOPEKA on Fld
TOPEKA TOWER 118.7 126.2 122.5R
TOPEKA GND CON 121.9
RADAR SERVICES: (BCN)
OLATHE APP CON 120.5 122.5R
ILS 109.5 I-TOP Apch Brng 125°

WICHITA
BEECH 5 E (273° 3.5 NM from ICT VOR)
1387 H50/18-36 (3) F4 FSS: WICHITA (DL)
REMARKS: Both apch N - S rnwy restricted by polelines.
TOWER 119.9 126.2 122.5R 3023.5R GND CON 121.9
RADAR SERVICES:
WICHITA APP CON 120.1 134.1 125.7 122.7R 332T
WICHITA DEP CON 124.5
ASR [1]Rnwy 18 Ceiling 700' Vsby day 1 mi Min Alt 2087
REMARKS: [1]NA for over 2 eng acft.

WICHITA MUNI 5 SW (161° 4.3 NM from ICT VOR)
1332 H73/1-19 (2) BL6, 8 S5 F5, JP1 U2
RVV: Rnwy 01 FSS: WICHITA on Fld
REMARKS: Clsd acft over 120,000 lbs except prior pmsn. Acft carrying hazardous or explosive cargo prohibited.
TOWER 119.5 122.5R 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
WICHITA APP CON 120.1 134.1 125.7 122.7R 113.8T
332T
WICHITA DEP CON 124.5 113.8T
ILS 110.3 I-ICT Apch Brg 010°

KENTUCKY

LEXINGTON
BLUE GRASS FIELD *IFR* 5 W (304° 7.3 NM from LEX VOR)
978 H55/4-22 (3) (S-35, T-45, TT-) BL4, 6, 8 S5 F5, JP-5
U2 RVV: Rnwy 4 FSS: LEXINGTON on Fld
LEXINGTON TOWER 121.1 122.5R 117.0 110.1T
LEXINGTON GND CON 121.9
LEXINGTON APP CON 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brng 042°

KENTUCKY–*Continued*

LOUISVILLE
BOWMAN FIELD *IFR* 5 SE (330° 8.3 NM from LOU VOR)
549 H43/6-24 (3) (Max 30) BL4 S-5 F-4, JP-4 U2
FSS: LOUISVILLE on F
TOWER 119.5 126.2 122.5R GND CON 121.
RADAR SERVICES:
STANDIFORD APP CON 124.5 126.2 120.5 120.3
STANDIFORD DEP CON 119.0

LOUISVILLE
STANDIFORD FIELD *IFR* 4 S (300° 8.4 NM from LOU VOR)
497 H78/1-19 (3) (S-60, T-90, TT-200) BL4, 6, 8 S-4
F5, JP1, 5 U2 RVV: Rnwy 29 RVR: Rnwy 1
FSS: LOUISVILLE
REMARKS: FEE
TOWER 120.3 126.2 122.7R
CLRNC DEL 121.3 GND CON 121.
RADAR SERVICES:
APP CON 124.5 126.2 120.5 120.3 DEP CON
ASR Rnwy 1 Ceiling 400 Vsby 1 mi Min Alt 897. Rnwy
19 Ceiling 500 Vsby 1 mi Min Alt 997. Rnwys 6,
24, 29 Ceiling 600 Vsby 1 mi Min Alt 1097
ILS 110.3 I-SDF Apch Brng 010° 109.1 I-LKS Apch Brng 290°
VHF/DF Available, contact Tower
REMARKS: On apch to rnwy 19 maintain at least 1400' MSL within 3 mi of rnwy.
VOT: 111.0

LOUISIANA

BATON ROUGE
RYAN *IFR* 4 N (065° 7.6 NM from BTR VOR)
70 H60/4-22 (3) (S-30, T-40, TT) BL4, 6, 11 S5 F4
JP5 U2 REIL rnwy 13. FSS: BATON ROUGE on F
TOWER [1]118.3 122.5R GND CON 121.9
BATON ROUGE APP CON 119.7 122.5R 116.5T
110.3T
ILS 110.3 I-BTR Apch Brg 127°
REMARKS: [1]Intermittent severe interference reported within mi radius.

LAFAYETTE MUNI *IFR* 2 SE (344° 3 NM from LFT VOR)
42 H51/1-19 (2) (S-30, T-40, TT) BL4, 8, 11 S5
F5, JP5 U2 RVV: rnwy 19 FSS: LAFAYETTE on F
REMARKS: Rnwy 10 threshold displaced 350 ft E. 3956 ft avbl lndg rnwy 10. REIL rnwy 1.
TOWER 118.5 122.5R CLRNC DEL 121.7
GND CON 121.7
APP CON 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193°

LAKE CHARLES MUNI *IFR* 3 S (252° 6.3 NM from LCH VOR
16 H65/15-33 (1) (S-137, T-165, TT-350) BL4, 8A S5
F4, JP4 FSS: LAKE CHARLES on F
REMARKS: Rgt tfc SE. Rnwy 4-22 clsd ufn.
TOWER 120.7 122.5R GND CON 121.9
APP CON 119.3
ILS 109.1 I-LCH Apch brg 148°

LOUISIANA–Continued

IROE
ELMAN FIELD *IFR* 3 E (035° 4.2 NM from MLU VOR)
79 H50 4-22 (3) (S-30, T-40, TT) BL4, 6, 8 S5
F4, JP4 U2 FSS: MONROE on Fld
MONROE TOWER 119.1 122.5R
MONROE GND CON 121.9
MONROE APP CON 119.1 122.5R
ILS 109.5 I-MLU Apch brg 038°

ORLEANS-LAKEFRONT *IFR* 4 NE (079° 7.4 NM from MSY VOR)
70 H57/17-35 (4) BL4 S5 FS, JP1, 5 U2
FSS: NEW ORLEANS on Fld
REMARKS: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to Ind. Rnwy 35 threshold displaced 1226 ft N. 4504 ft avbl lndg rnwy 35. No ngt operns rnwy 8-26.
LAKEFRONT TOWER 119.5 126.2 122.5R
LAKEFRONT GND CON 121.7
RADAR SERVICES:
NEW ORLEANS APP CON 125.5 122.7R 118.1
NEW ORLEANS DEP CON 121.0

ORLEANS INTL-MOISANT FLD *IFR* 10 W (237° 4.4 NM from MSY VOR)
3 H92/10-28 (3) (S-120, T-180, TT-400) BL4, 6, 8A S1
FS, JP1, 5 U2 RVV: Rnwy 10 FSS: NEW ORLEANS (DL)
REMARKS: Fee on gross indg wt. Rnwy 10-28 clsd constr until apprx Jan 1965. U S Customs - Lndg rts arpt (7am-11pm Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba.
MOISANT TOWER 119.9 126.2 122.7R 3023.5RX 278T
MOISANT GND CON 121.9
RADAR SERVICES:
APP CON [1]125.5 122.7R 118.1 109.9T
DEP CON 120.4
TFC INFO Ctc APP CON on 118.1
ASR Rnwys 1, 5, 19 ceil 500 vsby 1 mi min alt 503. Rnwys 10, 23, 28 ceil 400 vsby 1 mi min alt 403.
LS 109.9 I-MSY Apch brng .099
HF/DF available, contact tower.
REMARKS: [1]Acft transitioning New Orleans NAS MCC use New Orleans ARTCC freq 126.0 durg IFR above 5000; durg VFR use New Orleans APP CON freqs 118.1 & 122.7R.

VEPORT
EATER SHREVEPORT *IFR* 4 SW (135° 3.6 NM from SH LOM)
57 H73/13-31 (2) (S-90, T-135, TT-300) BL4, 6, 8 F5
VV: Rnwy 13 FSS: SHREVEPORT on Fld
HREVEPORT TOWER 118.3 122.7R 201T
SHREVEPORT GND CONN 121.9
ADAR SERVICES: (BCN)
SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
SHREVEPORT DEP CON 119.9
TFC INFO Ctc APP CON on 118.5
-S 110.3 I-SHV Apch brg 135°

LOUISIANA–Continued

SHREVEPORT DOWNTOWN *IFR* 2 S (DTN VOR on Fld
[illegible] H45 14-32 3[illegible] S30, T-40, TT [illegible] BL4 S5 F5
FSS: SHREVEPORT (D
REMARKS: Due non-vsby some areas of fld clsd [illegible] for instr. Apchs rnwys 14, 32, 18 and 36 restricted by trees-glide angle 0
TOWER 119.5 122.5R 272T GND CON 121.7
RADAR SERVICES: (BCN)
SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
SHREVEPORT DEP CON 119.9

MAINE

PORTLAND MUNI *IFR* 2 W (112° 5.4 NM from PW LOM)
66 H50 11-29 (2) (S-117, T-142, TT-220) BL4, 6, 7, 10 S5
FS, JP1 U2
VASI: Rnwy 29 FSS: PORTLAND on Fld
REMARKS: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slop maximum penetration of 27' lctd at the end of rnwy and 800' rgt cntrline. Lesser penetrations lctd 250'-430' from end of rnwy and 720'-890' left cntrline 1890'-2180' from end of rnwy and 900'-1090' left cntrline.
TOWER 120.9 122.5R 109.9T GND CON 121.9
APP CON 120.9
ILS 109.9 I-PWM Apch Brg 112° BC unusable

MARYLAND

BALTIMORE
FRIENDSHIP INTL *IFR* 8S (BAL VOR on FLD)
146 H94/10-28 (3) (S-240, T-500, TT-700) BL6, 8A, 10, 11
S5 F5, JP1, 4, 5 U2 VASI: Rnwy 28 RVR: Rnwy 10
REIL rnwys 4, 22 FSS: WASHINGTON (DL)
REMARKS: For Customs use gates A-14 and A-3 clsd 10 PM to 6:30 AM to practice approaches or landings by turbojet and turboprop due noise complaints.
TOWER 118.7 122.7R 109.7T GND CON 121.9
RADAR SERVICES:
BALTIMORE APP CON 121.1[1] 125.9[2]
BALTIMORE DEP CON 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546. Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646
ILS 109.7 I-BAL Apch brg 102°
VHF/DF available, contact tower.
REMARKS: [1] 090° - 269°. [2]270° - 089°.
VOT: 108.2

MARYLAND–*Continued*

BALTIMORE
MARTIN 9 E (058° 14 NM from BAL VOR)
18 H81/14-32 (4) (S-50, T-160, TT) *L6
FSS: WASHINGTON (DL)
Remarks: Prior permission required.
TOWER [1]121.3 126.2 317T
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[3]
BALTIMORE DEP CON 120.4
REMARKS: [1]Oper 1200-2030Z Mon; 1200-0330Z Tues, Wed & Thurs; 1230-2100Z Fri; 1230-2100Z Sat & Sun- [2]090° -269° [3]270° -089°

MASSACHUSETTS

BEDFORD
LAURENCE G HANSCOM FLD *IFR* 1 S 112° 4 NM from BE RBn
133 H70/11-29 (2) (S-80, T-200, TT-355) BL4, 6, 8 S5
F5, JP1, 4 FSS: BOSTON (DL)
TOWER 118.5 126.2 124.4 122.5R 3023.5RX
GND CON 121.7 VFR ADV Inbnd acft ctc APP CON
APP CON 124.4 126.2
RADAR SERVICES:[1]
PAR Rnwy 11 Ceiling 300 Vsby ¼ mi Min Alt 433
ILS 109.5 I-BED Apch brng 112°
VHF/DF available, contact tower.
REMARKS: [1]GCA oper 1300-0300Z Mon-Sat. IFF/SIF avbl.
VOT: 110.0

BOSTON
LOGAN INTL *IFR* 1 E (BOS VOR on FLD)
19 H100/4R-22L (4) (S-200, T , TT) BL6, 8A, 10
S5 F4, JP4, 5 U2 VASI: Rnwy 22L RVR: Rnwy 4R
FSS: BOSTON on Fld
REMARKS: FEE. Lndg threshold rnwy 4R displaced 2502' to NE, 10,023' avbl except lndg length toward NE restricted to 7521' during IFR conditions and hrs of darkness. Rnwy 4L-22R usable width 150' threshold at apch end rnwy 22R relocated 800' SW. Tmprly lndg threshold rnwy 4R displaced 2502' to NE for all lndg operns.
BOSTON TOWER 118.1 126.2 122.5R 110.3T
CLRNC DEL 121.65 BOSTON GND CON 121.9
RADAR SERVICES:
BOSTON APP CON [1]120.7 126.5 126.2 122.5R 110.3T [2]120.6 382T
BOSTON DEP CON 119.1
PAR Rnwy 4R ceil 200 vsby ½ mi min alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719. Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619. Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519
ILS 110.3 I-Bos Apch Brg 035° BC unusable. 110.7 I-LIP Apch Brg 330° BC unusable
VHF/DF available, contact Tower.
REMARKS: [1]To be decomsnd. [2]To be comsnd.
VOT: 111.0

MASSACHUSETTS–*Continued*

HYANNIS
BARNSTABLE MUNI *IFR* 1 N (242° 3.2 from HYA VOR)
52 H55/6-24 (2) (S-46, T-88, TT-134) BL4, 6, 8 S5
F5, JP5 U2 RVV: Rnwy 24 FSS: NANTUCKET
REMARKS: Poles SE, SW. E 2000' rnwy 11-29 open for dep Indgs and tk-ofs to acft under 12,500 lbs on prior req only
HYANNIS TOWER 119.5 122.5R
HYANNIS GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 110.5 I-HYA Apch Brg 246° BC unusable

NANTUCKET MEMORIAL *IFR* 3 SE (240° 1.9 NM from ACK VOR
47 H50/6-24 (2) (S-90, T-160, TT-293) BL4, 6, 8 S3
RVV: Rnwy 24 FSS: NANTUCKET
REMARKS: Cm-birds vic fld.
TOWER [1]118.3 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 109.1 I-ACK Apch Brg 240°
VHF/DF available, contact Tower.
REMARKS: [1]Oper 1200-0400Z advisory svc other times.

NEW BEDFORD MUNI *IFR* 2 NW (053° 3.8 NM from EW LOM
79 H50/5-23 (2) (S-50, T-65, TT) BL4, 6, 8 S5
U2 FSS: NANTUCKET
REMARKS: ILS apch zone for rnwy has unlgtd trees protruding above the 7 to 1 slope.
TOWER 121.3 122.5R 109.7T GND CON 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.8 I-EWB Apch Brg 053°

WESTFIELD
BARNES MUNI *IFR* 3 N (BAF VOR on field)
270 H90/2-20 (3) (S-60, T , TT BL4, 6 S5
FSS: WINDSOR LOCKS
REMARKS: Acft arresting barriers installed rnwy 2-20 avbl on req.
WESTFIELD TOWER [1]121.3 126.2 122.5R
WESTFIELD GND CON 121.7
REMARKS: [1]Oper 1100-0300Z.

WORCESTER MUNI *IFR* 3 W (332 4 NM from OR LOM)
1009 H71 (11-29) (3) (S-90, T , TT) BL6, 7 S5
F4, JP1 RVV: Rnwy 33 FSS: WORCESTER
REMARKS: Rnwy 11-29 threshold displaced 150'
TOWER 120.5 121.9 110.9T 255T
GND CON 121.9
ILS 110.9 I-ORH Apch Brg 332° BC unusable

MICHIGAN

TLE CREEK
K KELLOGG REGIONAL AIRFIELD *IFR* 3 W (BTL VOR on field)
941 H70/4-22 (4) (S-40, T-65-TT-115) BL4, 6 8A S5 F4
FSS: JACKSON
REMARKS: Rnwys 9-27, 18-36 clsd dur winter mos.
BATTLE CREEK TOWER 118.5 122.5R 396T
BATTLE CREEK GND CON 121.9
VFR ADV Ctc APP CON on 121.2 when 25 mi out.
BATTLE CREEK APP CON 121.2 122.5R
ILS 110.5 I-BTL Apch brg 224°

ROIT CITY *IFR* 5 NE (350° 8.2 NM from QG VOR AOE
026 H46/15R-33L (3) (Max-15) BL4 S5 F4, JP1 U2
FSS: DETROIT (DL)
TOWER 118.7 122.5R 278T GND CON 121.9
APP CON 120.0 122.5R
DEP CON 127.3
VHF/DF available, contact tower.
VOT: 112.0

ROIT METROPOLITAN WAYNE CO *IFR* 15 SW (032° 4.2 NM from (DT) LOM) AOE
539 H105/3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 10
S5 F4, JP1, 4 U2 VASI: Rnwy 27 RVR: Rnwy 3L
FSS: DETROIT on Fld
REMARKS: Rnwy 15 threshold displaced 650'.
DETROIT METROPOLITAN TOWER 121.1 126.2 122.7R 109.3T
CLRNC DEL 120.65
DETROIT METROPOLITAN GND CON 121.7
RADAR SERVICES:
WILLOW RUN APP CON 123.7 125.15 124.9 122.6R 114.9T 109.5T 332T
WILLOW RUN DEP CON 118.4
ILS 109.3 I-DTW Apch Brg 032° 110.7 I-DWC Apch Brg 212°
REMARKS: ILS rnwy 3L inop until March 1965.

OIT
LOW RUN *IFR* 19 SW (YIP VOR on field)
16 H75/5R-23L (5) (S-60, T-90, TT-200) BL2, 4, 6, 8
5 F5, JP1, 4 RVR: Rnwy 5R FSS: DETROIT (DL)
EMARKS: First 500' rnwy 9L not vis from twr.
OWER 121.3 122.6R 109.5T GND CON 121.9
ADAR SERVICES:
APP CON 125.15 124.9 123.7 122.6R 114.9T 109.5T
DEP CON 118.4
TFC INFO Ctc APP CON on 124.9 or 123.7
PAR Rnwy 5R ceil 200 vsby ½ mi min alt 916. Rnwy 5L ceil 400 vsby 1 mi min alt 1116
ASR Rnwy 9L ceil 600 vsby 1 mi min alt 1316. Rnwys 5I, 5R, 14, 36 ceil 500 vsby 1 mi min alt 1216. Rnwys 18, 23L, 23R, 27L, 27R, 32 ceil 400 vsby 1 mi min alt 1116
_S 109.5 I-YIP Apch Brg 050°
HF/DF available, contact tower.
OT: 109.0

MICHIGAN—Continued

FLINT
BISHOP *IFR* 3 SW (FNT VOR on field)
781 H56 9-27 (3) (S-40, T-60, TT-110) BL4, 6, 8 S5 F4
U2 FSS: LANSING
REMARKS: Rnwy 18 threshold displaced 635 ft.
FLINT TOWER 119.5 123.6 122.5R 111.6T 109.9T
FLINT GND CON 121.9 VFR ADV Ctc APP CON on 123.6 aprx. 25 NM out.
FLINT APP CON 123.6 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091°

GRAND RAPIDS
KENT COUNTY *IFR* 6SE (351° 5.7 NM from GRR VOR)
793 H66/8-26 (2) (Max-45) BL6, 8 S5 F5, JP1 U2
RVV: Rnwy 26 FSS: SAGINAW
TOWER 119.3 122.5R GND CON 121.9
VFR ADV Inbnd VHF equipped acft ctc APP CON on 124.6 MCS 10 mi out.
GRAND RAPIDS APP CON 124.6 122.5R 109.7T 329T
ILS 109.7 I-GRR Apch Brg 262

JACKSON
REYNOLDS MUNI *IFR* 2 W (JXN VOR on field)
1000 H53 5-23 (2) (S-60, T-80, TT-) BL4 S5
F4, JP4 FSS: JACKSON on Fld
REMARKS: Rnwy 5 threshold displaced 627 ft.
JACKSON TOWER [1]120.7 122.5R 121.9 109.6
CLRNC DEL 121.9
JACKSON GND CON 121.9
REMARKS: Twr oper 1200-0400Z.

KALAMAZOO MUNI *IFR* 1 SE (AZO VOR on field)
874 H53/17-35 (3) (S-30, T-50, TT-85[1]) BL4, 6, 8 S5
F4, JP5 U2 FSS: JACKSON (LC ST 4-9640)
REMARKS: [1](S-40, T-65, TT-110) avail rnys 5-23 & 9-27
TOWER [1]118.3 122.7R 362T GND CON 121.7
BATTLE CREEK APP CON 121.2
ILS 110.9 I-AZO Apch Brg 352°
REMARKS: [1]Oper 1200-0400Z.

LANSING
CAPITAL CITY *IFR* 3 NW (054° 5.4 NM from LAN VOR)
859 H65/9-27 (2) (S-30, T-40, TT) BL4, 6, 8 S5
F4, JP1 RVV: Rnwy 27 FSS: LANSING on fld
LANSING TOWER 119.9 122.5R 110.8T 110.1T
LANSING GND CON 121.9 VFR ADV Ctc APP CON on 127.4 aprx 25 NM out.
LANSING APP CON 127.4 122.5R 110.8T 110.1T
ILS 110.1 I-LAN Apch Brg 273°

MUSKEGON CO *IFR* 4 S (272° 8.4 NM from MKG VOR)
628 H56/14-32 (3) (S-30, T-40, TT) BL6, 8 S5 F4
U2 RVV: Rnwy 32 FSS: MUSKEGON on Fld
REMARKS: Rnwy 36 threshold displaced 300'. Rnwy 14 threshold displaced 300'.
TOWER 121.1 122.5R GND CON 121.9 VFR ADV Ctc APP CON aprx 25 mi out on 118.2
APP CON 118.2 122.5R 115.2T 109.9T
ILS 109.9 I-MKG Apch Brg 317° BC unusable

MICHIGAN—*Continued*

PONTIAC MUNI *IFR* 5 W (119° 4.9 NM from PTK VOR)
974 H53/9-27 (3) (S-40, T-65, TT-110) BL6 S5 F4 U2
FSS: DETROIT (LC PA 2-8790)
TOWER [1]120.5 122.5R 275Tx GND CON 121.9
RADAR SERVICES:
CLEVELAND CENTER APP CON 126.4
CLEVELAND CENTER DEP CON 126.4
REMARKS: [1]Oper 1100-0300Z.

MINNESOTA

DULUTH INTL *IFR* 5 NW (013° 2.2 NM from DLH VOR) AOE
1429 H101/9-27 (3) (S-60, T-100, TT-185) BL4, 6, 8 S5
F5, JP4 VASI: Rnwy 27 RVV: Rnwy 9-27
FSS: HIBBING
REMARKS: Caution, const in prog. 2000' concrete extsn w of rnwy 9 threshold lgts and end mrkgs unusable. Jet arresting barrier cable installed 1600' from apch end rnwy 27 and 500' from apch end rnwy 9.
TOWER 118.3 126.2 122.5R 379T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 125.8 122.5R 112.6T 110.3T
DEP CON 126.2
PAR Rnwy 9, 27 Ceil 300 Vsby ½ mi Min alt 1729.
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829. Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS 110.3 I-DLH Apch Brg 088°
VHF/DF available, contact Tower.
REMARKS: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx.

MINNEAPOLIS
CRYSTAL *IFR* 8 NW (166° 4.9 NM from MSP VOR)
869 H32/13L-31R (2) (Max-4) BL4 S5 F4
FSS: MINNEAPOLIS (DL)
REMARKS: Grass strips usable but rough. Portions of arpt not visible from twr. Threshold rnwy 23R displaced 400' SW landing distance available 2100'.
TOWER [1]120.7 122.5R 257T GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNEAPOLIS
FLYING CLOUD *IFR* 11 SW (FCM VOR on field)
909 H36/9L-27R (3) (Max 8) BL4 S5 F4, JP4
FSS: MINNEAPOLIS (DL)
TOWER [1]120.5 122.5R 272T GND CON 121.7
RADAR SERVICES
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNESOTA—*Continued*

MINNEAPOLIS-ST PAUL INTL *IFR* 6S (287° 2.4 NM from MSP RBn)
840 H100/11R-29L (3) (S-120, T-180, TT-400) BL6, 8, C S5, JP1, 4 VASI: Rnwy 11R RVR: Rnwy 4
FSS: MINNEAPOLIS on FI
REMARKS: First 1000' NE end rnwy 4-22 clsd to non-mil ac. Rnwy 11L-29R threshold displaced 610' SE. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
MINNEAPOLIS TOWER 118.7 126.2
CLRNC DEL 119.55
MINNEAPOLIS GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R 117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
PAR Rnwy 29L Ceil 300 Vsby ½ mi Min Alt 1140.
ASR Rnwy 11R Ceil 400 Vsby 1 mi Min Alt 1240. Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440. Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° 109.3 I-APL Apch brng 039°
VHF/DF available, contact Tower.
REMARKS: CAUTION—on apch to rnwy 11R do not descend below 1400' until radar controller has advised passing twr fm apch end rnwy 11R.
VOT: 111.0

ROCHESTER MUNI *IFR* 7 S (025° 8.3 NM from RST VOR)
1310 H64/13-31 (2) (Max 60) BL4, 6, 8 S5 F4, JP4 U2
RVV: Rnwy 31 FSS: ROCHESTER on FI
TOWER 118.3 122.5R 121.9 278Tx GND CON 121.9
VFR ADV Ctc APP CON on 119.8.
APP CON 119.8 122.5R 112.0T 109.9T
ILS 109.9 I-RST Apch Brg 307°

ST PAUL-DOWNTOWN *IFR* 1 S (289° 4.6 NM from STP VOR)
703 H55/12-30 (3) (Max 45) BL2, 4 S5 F5, JP5 U2
FSS: MINNEAPOLIS
REMARKS: 4562 ft avbl lndg rnwy 12. NE-SW rnwy used as txwy.
ST PAUL TOWER [1]119.1 122.5R 396T
ST PAUL GND CON 121.7
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R 117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MISSISSIPPI

GULFPORT MUNI *IFR* 3 NE (GPT VOR on field)
28 H90/13-31 (3) (S-60, T-115, TT-120) BL4, 6, S5 F5 JP1 U2
FSS: MOBILE (LC 604-5[illegible]
REMARKS: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000 ft overruns on end Rnwy 13-31.
TOWER 121.3 122.5R 109.0T GND CON 121.9
APP CON 119.3 122.5R 109.0T

MISSISSIPPI–Continued

KSON
KINS FIELD *IFR* 2 NW (189° 10.8 NM from JAN VOR)
343 H54 16R-34L (2) (Max 15)[1] BL4, 6 S5 F4 U2
FSS: JACKSON (LC 939-5212)
REMARKS:[3] Max 20 aval rny 16R-34L.
TOWER 118.7 126.2 122.5R 278T
RADAR SERVICES:
JACKSON APP CON 123.9[1] 125.2[2]
JACKSON DEP CON 123.9 125.2
REMARKS: [1]333°-152°. [2]153°-332°.

SON
OMPSON FIELD *IFR* 5 E (151° 11.7 NM from JAN VOR)
245 H85/15-33 (1) (S-120, T-150, TT-265) BL6, 8 S5
F5, JP5 U2 RVV: Rnwy 15 FSS: JACKSON on Fld
JACKSON TOWER 120.9 126.2 122.7R 348T
JACKSON GND CON 121.7
RADAR SERVICES:
JACKSON APP CON 125.2[1] 123.9[2]
JACKSON DEP CON 125.2[1] 123.9[2]
ASR Rnwys 15, 33 Ceil 400 Vsby 1 mi Min Alt 745
ILS 110.5 I-JAN Apch Brg 152°
REMARKS: [1]153-332°. [2]333°-152°. ILS lclzr usable area restricted to front crs and 35° either side of cntr line.

IDIAN
Y FIELD 3 SW (129° 3.5 NM from MEI VOR)
297 H80/1-19 (2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
RVV: Rnwy 01 FSS: MERIDIAN on Fld
REMARKS: Transmissometer rnwy 1.
TOWER 118.2 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
MERIDIAN APP CON 120.5
MERIDIAN DEP CON 124.7
LS 110.1 I-MEI Apch Brg 004°
REMARKS: Twr opers 1300-0500Z.

MISSOURI

AS CITY
D-CONTINENT INTL *IFR* 15 NW (005° 4.4 NM from MC LOM)
011 H90/18-36 (1) (S , T-150, TT-300) BL6, 8 F5, JP1
RVV: Rnwy 36 FSS: KANSAS CITY (LC GR 1-4572)
REMARKS: W 4000' of E/W txwy avbl for use as rnwy if 12,500 lbs or less dur strong winds.
TOWER [1]120.7 122.4R GND CON 121.8
RADAR SERVICES:
KANSAS CITY APP CON 119.5[2] 126.2 1227R 121.1[3] 112.6T 109.9T KANSAS CITY DEP CON 118.1
LS 110.5 I-MCI Apch Brg 005°
REMARKS: [1]Oper 1300-0500Z. [2]E sector. [3]W sector.

MISSOURI–Continued

KANSAS CITY MUNI *IFR* 4 N (171° 8.7 NM from MRC VOR)
758 H70/18-36 (3) (S-110, T-165, TT-365) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 18 FSS: KANSAS CITY on Fld
REMARKS: Rnwy 35 usable daylight hrs only.
TOWER 118.3 126.2 125.8 122.7R 121.1 111.4T
CLRNC DEL 125.8 GND CON 121.9
RADAR SERVICES:
APP CON 119.5[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
DEP CON 118.1 PAR Rnwy 18 Ceil 400 Vsby 1 mi
Min Alt 1158.
ILS 109.9 I-MKC Apch Brg 185° BC unusable
VHF/DF available, contact tower.
REMARKS: Req all arriving VFR flts eqp with proper simplex freqs make initial ctc with Kansas City app con on appropriate freq for preliminary landing info. Acft approaching fm 001°-180° use 119.5 and/fm 180°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth.
VOT: 108.6

ST JOSEPH
ROSECRANS MEMORIAL *IFR* 3 WNW (167° 10.7 NM from STJ VOR)
826 H80/17-35 (3) (S-60, T-160, TT-250) BL4, 6, 8 S5
F4, JP4 FSS: ST JOSEPH on Fld
TOWER 119.9 122.5R GND CON 121.9
KANSAS CITY APP CON 121.1 126.2 122.7R 119.5
KANSAS CITY DEP CON 118.1
ILS 110.3 I-STJ Apch Brg 352°

ST LOUIS
LAMBERT-ST LOUIS *IFR* 10 NW (137° 8 NM from STL VOR)
571 H100/12R-30L (4) (Max 75)[1] BL4, 6, 8 S5 F4, JP1, 5 U2 RVR: Rnwy 24 FSS: ST LOUIS on Fld
REMARKS: [1](Max-10D) rnwy 17-35.
ST LOUIS TOWER 118.5 126.2 122.7R 122.5R[1] 119.5 278T CLRNC DEL 119.5 ST LOUIS GND CON 121.9 122.5R
RADAR SERVICES:
ST LOUIS APP CONN 126.5[2] 123.7 122.5R 118.1 [3]117.4T 110.3T ST LOUIS DEP CON 119.9
PAR Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 mi Min Alt 1071. Rnwys 12L, 30R Ceil 500 Vsby 1 ½ mi Min Alt 1071. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° [4]109.7 I-LMR
VHF/DF available, contact tower.
REMARKS: [1]May be descmsnd. [2]Southeast arrivals. [3]Northwest arrivals. Except rnwy 12. [4]To be comsnd Jan. 22.
VOT: 111.0

SPIRIT OF ST LOUIS *IFR* 23W (217° 1.2NM from MTS VORTAC)
511 H51/7-25 (1) (T-30) L6 S1 F4
FSS: ST LOUIS (LC PE 1-4411)
REMARKS: Special Air Traffic Rules - Part 93, Subpart G in effect. Unlgtd p-line 1000' W apch end rnwy 7.
TOWER[1] 121.3 122.5R 121.5X
REMARKS: [1]Opers 30 min before SR - 30 min after SS daily. Rgt tfc rnwy 7.

MISSOURI—*Continued*

SPRINGFIELD MUNI *IFR* 5 NW (193° 6.8 NM from SGF VOR)
1267 H56/1-19 (2) (S-80, T-135, TT-300) BL4, 6, 8 S5
F5, TP1 RVV: Rnwy 1 FSS: SPRINGFIELD on Fld
TOWER 119.9 122.5R GND CON 121.9
VFR ADV 125.8
APP CON 125.8 122.5R 116.9T 109.9T
ILS 109.9 I-SGF Apch Brg 015°

MONTANA

BILLINGS
LOGAN FIELD *IFR* 2 NW (070° 3.2 NM from BIL VOR)
3606 H86/9-27 (3) (S-60, T-80, TT-120) BL2, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 9 FSS: BILLINGS on Fld
BILLINGS TOWER 118.3 122.5R 3023.5R 278T
BILLINGS GND CON 121.9
BILLINGS APP CON 118.3 122.5R 120.5 114.5T
110.3T 3023.5R 278T
ILS 110.3 I-BIL Apch Brg 095°

GREAT FALLS INTL *IFR* 3 SW (026° 1.9 NM from GTF VOR)
3671 H90/3-21 (4) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwys 16, 34
FSS: GREAT FALLS on Fld
REMARKS: Rnwy 7-25 rest to acft 64,000 lbs or less.
TOWER 118.7 126.2 122.5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1 134.1 126.2 122.7R 122.5Rx 121.1
119.3 116.3T 3023.5Rx DEP CON 121.1
TFC INFO Ctc APP CON on 118.1 119.3 or 122.5R
ILS 110.3 I-GTF Apch Brg 341° BC unusable

HELENA *IFR* 2 NE (240° 0.7 NM from HLN VOR)
3873 H70/8-26 (3) (S-60, T-70, TT-122) BL 4 S5 F5, JP4
U2 FSS: HELENA on Fld
REMARKS: Rnwy 11-29 rest to 100,000 lbs GWT. Rgt tfc W, SW, NW.
HELENA TOWER 118.3 122.5R 278T GND CON 121.9

MISSOULA CO *IFR* 4 NW (MSO VOR on fld)
3203 (H59/16-34 (3) (Max-30) BL2, 4 S5 F4 U2
FSS: MISSOULA on Fld
REMARKS: Rnwy 11-29 rest to 150,000 lbs gwt with 1387 ft emerg overrun NW end for acft under 25,000 lbs. Rnwy 16-34 rest to 65,000 lbs GWT. Rnwy 7-25 rest to 12,500 lbs GWT.
TOWER [1]118.5 122.5R 278T GND CON 121.9
REMARKS: [1]Oper 1300-0500Z.

NEBRASKA

LINCOLN MUNI/AFB *IFR* 4 NW (351° 4.8 NM from LN RBN)
1198 H129/17R-35L (2)[1] (Max-15) BL4[1], 6, 8A, 11 S5
F5, JP1 RVV: Rnwys 17, 35 REIL: Rnwy 17R
FSS: LINCOLN on Fld
REMARKS: [1]H129/17R-35L IFR, BL6, 8 (Mil). All civ acft use 4000 ft rnwy 17L-35R excpt in actual IFR conditions or when acft manufacturers recommendations rqr the use of rnwy 17R-35L.
TOWER 118.5 126.2 122.5R 272T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.7 124.8 120.4 109.9T 108.4T
3023.5R DEP CON 119.8
TFC INFO ctc twr 25 mi out.
ILS 109.9 I-LNK Apch Brg 351°

NEBRASKA—*Continued*

OMAHA
EPPLEY FIELD *IFR* 3 NE (309° 10.2 NM from OMA VOR
983 H85/14-32 (4) (S-180, T-200, TT-400) BL4, 6, 8, 11
S5 F5, JP1, 4 RVV: Rnwy 14 REIL: Rnwy 35
FSS: OMAHA on
REMARKS: US Customs lndg rts arpt
TOWER 119.1 126.2 122.5R OMAHA GND CON 121.8
RADAR SERVICES: (BCN)
OMAHA APP CON 120.1 125.7 122.5R
OMAHA DEP CON 124.5 118.0
ILS 110.3 I-OMA Apch Brg 135°. BC unusable

NEVADA

LAS VEGAS
McCARRAN FIELD *IFR* 5 S (LAS VOR on fld)
2171 H100/7-25 (3) (S-100, T-200, TT-380) BL4, 6, 10 S
F5, TF1, JP4, 5 U2 VASI: Rnwy 25
FSS: LAS VEGAS on F
REMARKS: Rnwy 7 threshold displaced 750 ft E. 9245 avbl lndg rnwy 7. Rnwy 32 threshold displaced 379 ft NW. 4[illegible] avbl lndg rnwy 32. Rnwy 1 threshold displaced 625' N. 5878 avbl indg rnwy 1.
TOWER 118.3 122.5R 278T GND CON [illegible]
RADAR SERVICES: (BCN)
LAS VEGAS APP CON 121.1 125.9 122.5R 116.9T
LAS VEGAS DEP CON 119.4
TFC INFO Ctc APP CON on 121.1 30 mi out.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571. Rnwy 1, 7[1] Ceil 600 Vsby 1 mi Min Alt 2771
REMARKS: [1]Acft inbnd on FAP to rnwys 1 or 7 will dsnd not lwr than 3100 until pilot is notified by RAPCON that he has passed a pt 3 mi before the rnwy.

RENO MUNI *IFR* 2 SE (229° 5.1 NM from RNO VOR)
4411 H78/16-34 (2) (S-100, T-200, TT-350) BL6, 8 S5
F5, JP1, 5 U2 FSS: RENO
REMARKS: Rnwy 16-34 extension constr 1200 ft S end until Jan 65. Const will periodically affect opernl use of rnwy varying daily with nature of work.
TOWER 118.3 278T GND CON [illegible]
APP CON 119.2 117.9T 254T

NEW HAMPSHIRE

MANCHESTER
GRENIER FIELD *IFR* 3 S (337° 4.2 NM from MHT VOR)
233 H70/17-35 (2) (S-127, T-200, TT-400) BL4, 11 S5
U2 REIL: Rnwy 35 FSS: CONCORD
TOWER[1] 121.3 126.2 122.5R
REMARKS: [1]Oper 1000-0300Z.

NEW JERSEY

EC ATLANTIC CITY (POMONA) *IFR* 9 NW (ACY VOR on air-
scel 76 H100·13-31 (4) (MAX-60) BL4, 6, 8 S3 F5, JP4
FSS: MILLVILLE (DL)
REMARKS: Fee.
TOWER 119.5 128.4 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
ATLANTIC CITY APP CON 124.6 126.2 122.5R 119.5
108.6T
ATLANTIC CITY DEP CON 128.4
PAR Rnwy 13 Ceil 200 Vsby 1 2 mi Min Alt 276.
Rnwys 4, 31 Ceil 300 Vsby 3 4 mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby
1 mi Min Alt 576
LS 110.5 I-ACY Apch Bng 128° BC unusable
/HF DF available, contact tower
EMARKS: [1]400 aux for rnwys 13, 17, 22, 22, 26, 31.

)WELL-WRIGHT 1 N (146° 16.1 NM from SAX VOR)
75 H47 4-22 (3) (MAX-20) BL4 S5 F5 U2
FSS: TETERBORO
EMARKS: Rgt tfc rnwy 22, 27. Rft tfc on tkofs only rnwy 32.
Arpt attended 8 AM to 9 PM.
AA DEP PROC: Rnwy 27 acft shall not start crosswind leg
until well past the school lctd 1 4 mi to the right of the ex-
tended rnwy centerline and 1. 4 mi from the arpt. Rnwy 32
acft shall bear right as soon as practicable after take-off to
avoid flying over the Fairfield township school lctd 1/4 mi
NW of arpt and slightly left of the extended rnwy centerline.
OWER [1]126.5 122.5R
ADAR SERVICES:
NEWARK APP CON 127.6[2] 124.3[3] 122.7R 120.6
3023.5R
NEWARK DEP CON 119.2 120.6
EMARKS:[1] Oper 1330Z-SS daily. [2]270°-089°. [3]090°-
269°.

ISTOWN MUNI *IFR* 2 E (020° 3.1 NM from CAT RBn)
87 H40/4-22 (2) BL4, 6 S5 F5, JP1 U2
FSS: TETERBORO (LC JE8-2196)
EMARKS: Dips first 800 ft rnwy 22. Ngt trng flts by non-
based acft prohibited.
OWER[1] 118.1 122.7R GND CON 121.7
NEWARK APP CON 127.6[2] 124.3[3] 120.6 122.7R
NEWARK DEP CON 119.2 120.6
EMARKS: [1]Oper 1200-0400Z. [2]North. [3]South.

RK MUNI *IFR* 2 S (058° 1 NM from EWR RBn)
3 H70/4-22 (2) (MAX-55) BL4, 6, 8A, 10, 11 S5 F5, JP1
2 REIL and VASI: Rnwy 29 RVR: Rnwy 4
FSS: TETERBORO (DL)
EMARKS: US Customs lndg rts arpt fee.
OWER 118.3 126.2 122.7R 110.3T 109.3T 109.1T
CLRNC DEL 121.4 GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 127.6[2] 124.3[3] 122.7R 120.6 110.3T 109.3T
3023.5R 379T
DEP CON 119.2 120.6
TFC INFO Inbnd tfc ctc APP CON on 126.2 25 mi out.
PAR Rnwy 4 Ceil 200 Vsby 1/2 mi Min Alt 218

NEW JERSEY—Continued

NEWARK MUNI—(Continued)
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. 109.1
I-ARK Apch Brg 217°
VHF DF available, contact tower.
REMARKS: [1]Min of 700 apply for rnwy 11. [2]North. [3]South.
VOT: 108.6

TETERBORO MUNI *IFR* 1 SW (060° 4 NM from TE LOM)
7 H50·6-24 (3) (MAX-20) BL4, 8 S5 F5, JP1
FSS: TETERBORO on Fld
REMARKS: Fee. Clsd to jet acft except prior pmsn. Rnwy
24 apch restricted by poleline-glide angle 6 to 1.
TOWER 119.5 122.5R GND CON 121.9
RADAR SERVICES:
NEWARD APP CON 127.6 124.3
NEWARK DEP CON 119.2 120.6
ILS 109.3 I-TEB Apch Brg 060°. BC unusable

TRENTON
MERCER COUNTY *IFR* 4 NW (081° 4.6 NM from ARD VOR)
213 H52.6-24 (3) (S-30, J- , TT-) BL4, 11 S5 F4, JP4, 5
U2 REIL: Rnwy 6 FSS: PHILADELPHIA (DL)
REMARKS: Fee. Rnwy 6 apch restricted by poleline-glide
angle 9 to 1.
TRENTON TOWER 119.3 122.5R
TRENTON GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R 109.3T
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089°. [2]090°-269°.

NEW MEXICO

ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE (077°
9.6 NM from ABQ VOR)
5352 H127/8-26 (4) (S-100, T-155, TT-445) BL4, 6, 8, 10
S5 F5, JP1, 4 U2 VASI: Rnwy 8
RVV: Rnwy 35 FSS: ALBUQUERQUE on Fld
ALBUQUERQUE TOWER 118.3 126.2 122.5R 119.2
CLRNC DEL 119.2
ALBUQUERQUE GND CON 121.9
RADAR SERVICES: (BCN)
ALBUQUERQUE APP CON 124.3 134.1 126.2 123.9
122.5R 121.1 113.2T 110.3T
ALBUQUERQUE DEP CON 121.1
TFC INFO Ctc APP CON on 123.9 25 mi out.
PAR Rnwy 8[1] Ceil 300 Vsby 3/4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I-ABQ Apch Brg 350°
REMARKS: [1]500-1 1/2 rqrd for civil jet acft.
VOT: 111.0

HOBBS, LEA COUNTY *IFR* 4 W (030° 3.5 NM from HOB VOR)
3659 H63/3-21 (4) BL4, 6 S5 F4 U2
FSS: HOBBS on Fld
TOWER 118.3 126.2 122.5R 215T GND CON 121.9

NEW MEXICO–Continued

ROSWELL MUNI *IFR* 1 NW (027° 4.9 NM from ROW VOR)
3623 H55/12-30 (4) (S-40, T-55, TT-) BL4 S5 F4
FSS: ROSWELL on Fld
REMARKS: Rgt tfc rnwys 12, 17, 21, 26
TOWER[1] 118.5 122.5R 278T GND CON 121.9
WALKER APP CON 123.8 126.2x 122.7R 120.2x
WALKER DEP CON 123.8 122.7R
TFC INFO [2]Ctc Walker APP CON 30 mi out on 123.8, 120.2 122.7R
REMARKS: [1]Oper 1300-0500Z. [2]Ots ufn.

SANTA FE COUNTY MUNI *IFR* 9 SW (332° 4.2 NM from SAF VOR)
6344 H83/2-20 (3) (S-45, T-60, TT-) BL4 S5 F4, JP1
FSS: SANTA FE on Fld
TOWER 126.2 122.5R 119.5 GND CON 121.7

NEW YORK

ALBANY COUNTY *IFR* 6 NW (ALB VOR on fld) AOE
288 H50/1-19 (3) (S-110, T-200, TT-400) BL4, 6, 8 S5
F5, JP1, 4 RVV: Rnwy 19 FSS: ALBANY on Fld
REMARKS: Fee. Rnwy 1 apch restricted by road-glide angle 1 to 1. Rnwy 33 apch restricted by trees-glide angle 1 to 1.
TOWER 119.5 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.0 124.7 122.5R 109.5T
DEP CON 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I-ALB Apch Brg 191°
VOT: 109.0

BETHPAGE
GRUMMAN-BETHPAGE *IFR* Adj W (265° 9 NM from DPK VOR)
119 H66/15-33 (2) (MAX-25) BL4 F5, JP4, 5
FSS: ISLIP (DL)
REMARKS: Clsd to public. Rnwy 10 apch restricted by poleline-glide angle 5 to 1.
TOWER[1] 126.2 121.3 323T GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 118.4
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2330Z Mon-Fri. [2]054°-110°. [3]110°-160°

BINGHAMTON
BROOME COUNTY *IFR* 7 N (076° 7 NM from BGM VOR)
1629 H56/16-34 (2) (S-120, T-160, TT-) BL4, 6, 8 S5
F5, JP1 RVV: Rnwy 34 FSS: BINGHAMTON on Fld
TOWER 119.3 122.5R 114.3T 110.3T 109.6T
GND CON 121.9
RADAR SERVICES:
APP CON 118.6 DEP CON 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi
Min Alt 2029
ILS 110.3 I-BGM Apch Brg 338° BC unusable
Localizer unusable MM to touchdown - crs roughness.

NEW YORK–Continued

BUFFALO AS
GREATER BUFFALO INTL *IFR* 5 E (287° 3.6 NM from BUF VOR) 719 H56/5-23 (2) (S-120, T-180, TT-400)
BL4, 6, 11 S5 F5, JP1, 4, 5 RVV: Rnwy 23
FSS: BUFFALO on F
REMARKS: Fee. Ctn apch restricted rnwy 23. 4745 ft ast rnwy 23.
TOWER 120.5 120.1 122.5R
CLRNC DEL 124.7 GND CON
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1
BUFFALO DEP CON 125.5
TFC INFO Inbnd acft ctc BUFFALO APP CON on 126.2 or 123.7 aprx 25 mi out.
ASR Rnwys 5, 18, 23, 31, 36 Ceil 400 Vsby 1 mi
Min Alt 1119, Rnwy 13 Ceil 500 Vsby 1 mi Min Alt
ILS 110.3 I-BUF Apch Brg 232°
VHF/DF available, contact tower
VOT: 109.0

CALVERTON
PECONIC RIVER *IFR* 2 W (091° 4.6 NM from RVH VOR)
75 H100/14-32 (2) (MAX-50) BL6 S5 F5, JP4, 5
FSS: ISLIP
REMARKS: Clsd to public.
TOWER[1] 121.3 126.2 122.5R 3023.5R 323T
GND CON 121.9
ILS 110.7 I-CTO Apch Brg 048°
REMARKS: [1]Oper 1200-0500Z.

ELMIRA
CHEMUNG COUNTY *IFR* 5 NW (066° 6.6 NM from ELM VOR)
951 H56/6-24 (3) (MAX-15) BL4, 6, 8 S5 F5, JP1
FSS: ELMIRA
ELMIRA TOWER 121.1 122.5R ELMIRA GND CON
ELMIRA APP CON[1] 121.1 122.5R
ILS[2] 109.1 I-ELM Apch Brg 239°
REMARKS: [1]Oper 1200-0400Z. [2]Rnwy 24 back crs

FARMINGDALE
REPUBLIC AVIATION CORP *IFR* Adj NE (245° 6.2 NM from DPK VOR)
82 H75/14-32 (2) (MAX-25) L4 F4, JP4 FSS:
REMARKS: Clsd to public. Rft tfc rnwy 32.
TOWER[1] 121.3 126.2 122.5R
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 126.05 123.7
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2030Z. [2]054°-110°. [3]110°-160°.

ISLIP
MacARTHUR FIELD *IFR* 7 NE (057° 5.3 NM from ISLIP LOM)
98 H50/6-24 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
F5, TF1 FSS: ISLIP
REMARKS: Rnwy 28 apch restricted by trees-glide angle
TOWER 119.3 126.2 122.5R 110.1T 3023.5R
GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
ILS 108.3 I-ISL Apch Brg 057°
REMARKS: [1]054°-110°. [2]110°-160°

NEW YORK–*Continued*

YORK
JOHN F KENNEDY INTL *IFR* 11 SE (JFK VOR on fld)
12 H146·13R-31L (5) (S-100, T-185, TT-340) BL6, 8A, 10, 11, 14, 15 S5 F5, JP1, 4 U2 VASI: Rnwy 13R RVV: Rnwys 22L, 25L, 31R REIL: Rnwy 13L
RVR: Rnwys 31L, 4R FSS: ISLIP (DL)
REMARKS: Fee. Clsd to fighter type, jet and turbprop acft excp with prior apvl and to routine mil tfc. Rnwy 13R-31L 14,572' with lndg threshold 13R displaced 3324', 31L 2600'. Rnwy 7-25 10,000' with lndg threshold 25 displaced 1800' Rnwy 4L-22R 7845' with lndg threshold rnwy 4L displaced 670'.
KENNEDY TOWER 119.1 134.1 122.7R 110.9T 109.5T
CLRNC DEL 121.65 KENNEDY GND CON 121.9
RADAR SERVICES: (BCN)
KENNEDY APP CON 118.0 134.1 123.7 122.7R 120.8 118.4 109.5T
KENNEDY DEP CON 123.9[1] 134.1 121.1[3]
TFC INFO Call Kennedy Tower on 120.8 or 127.05
PAR Rnwy 4R Ceil 200 Vsby 1 2 mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612. Rnwys 22R, 25L Ceil 500 Vsby 1 mi Min Alt 512. Rnwys 7R, 31R Ceil 400 Vsby 1 mi Min Alt 412
ILS 109.5 I-JFK Apch Brg 043°; 110.9 I-IWY Apch Brg 223°; 111.5 I-RTH Apch Brg 312°. BC unusable.
VHF DF available, contact tower
REMARKS: [1]054°-110°, [2]110°-160°. IFF svc avbl.
VOT: 112.0

YORK
LA GUARDIA *IFR* 4 E (178° 0.4 NM from LGA VOR)
121 H60/13-31 (2) (S-80, T-105, TT-105) BL6, 8A, 10, 11 S5 F5, JP1 VASI: Rnwys 13 and 31 TPA: 1500
RVV: Rnwy 4 FSS: TETERBORO (DL)
REMARKS: Fee. Rnwy 31 threshold displaced 175 ft NW. 5813 avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior pmsn.
FAA DEP PROC: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
TOWER 118.7 126.5 122.7R 113.1T* 109.9T
CLRNC DEL 126.15 GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.7[1] 122.7R 118.9[2] 109.9T
DEP CON 120.4 128.8
TFC INFO All inbound acft ctc APP CON
PAR Rnwy 4 Ceil 400 Vsby 3/4 mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721. Rnwy 31 Ceil 600 Vsby 1 min Min Alt 621
ILS 109.9 I-LGA Apch Brg 044° BC unusable; 108.5 I-GDI Apch Brg 134°; 110.5 I-URD Apch Brg 224° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]180°-359° [2]360°-179° IFF svc avbl. GCA approach to rnwy 22 not authorized at this time.
VOT: 109.0

GARA FALLS MUNI *IFR* 4 E (277° 4.2 NM from IA LOM)
590 H91/10L-28R (4) (S-90, T- , TT-) BL4, 6, 8 S3 F5 FSS: BUFFALO (DL)
REMARKS: First 1000 ft rnwy 28R 10L clsd periodically due const. No signal SS-SR to indicate IFR conditions less than 3 mi and or ceil less than 1000 ft.
NIAGARA TOWER 118.5 126.2 122.7R 110.1T 272T[1]

NEW YORK–*Continued*

NIAGARA FALLS MUNI (Continued)
NIAGARA GND CON 121.7
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1 110.3T 278T
BUFFALO DEP CON 125.5
ILS 110.1 I-IAG Apch Brg 277°. BC unusable.
VHF/DF available, contact tower.
REMARKS: [1]To be decomsnd.

ROCHESTER-MONROE CO *IFR* 3 SW (ROC VOR on fld) AOE
560 H55 10-28 (4) (S-120, T-190, TT-320) BL4, 6, 8 S5 F5, JP1 U2 RVV: Rnwy 28 FSS: ROCHESTER on Fld
REMARKS: Rnwy 12 threshold displaced 150 ft SE. 2891 ft avbl lndg rnwy 12. Rnwy 30 threshold displaced 690 ft NW. 2351 ft avbl lndg rnwy 30. Longest rnwy 10-28 5500 ft. Rnwy 10-28 clsd periodically btn hrs 7 am-6 pm Sun & holidays due constr. Fee. No signal SS-SR to indicate IFR conditions.
TOWER 118.3 122.5R 278T* GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 124.0 120.7 122.5R 110.0T 109.9T
DEP CON 121.0
TFC INFO Ctc APP CON on 119.8
ASR Rnwy 1 Ceil 600 Vsby 1 1/2 mi Min Alt 1160.
Rnwy 7 Ceil 700 Vsby 1 1 2 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 1/2 mi Min Alt 960
Rnwy 28 Ceil 800 Vsby 1 1. 2 mi Min Alt 1360
ILS 109.5 I-ROC Apch Brg 277° BC unusable
REMARKS: IFF svc avbl.

SCHENECTADY COUNTY *IFR* 2 N (GVI RBn on Fld)
378 H70/4-22 (3) (S-50, T , TT) BL4, 6 S5
F5, JP4, 5 U2 FSS: ALBANY (DL)
REMARKS: Lgts prior req after 0300Z. First 100 ft apch end rnwy 10 not vis fm ctl twr. Rnwy 28, 15 and 33 apchs rest by trees -glide angle 1 to 1.
TOWER[1] 126.2 121.3 3023.5R 356T
RADAR SERVICES:
ALBANY APP CON 125.0 124.7 122.5R 109.5R
ALBANY DEP CON 125.2
VHF/DF available, contact tower.
REMARKS: [1] Oper 1100-0300Z

SYRACUSE
HANCOCK *IFR* 4 NE (131° 4.7 NM from SYR VOR)
421 H90/10-28 (3) (S-120, T-190, TT-350) BL4, 6, 8 S5
F5, JP4 RVV: Rnwy 28 FSS: SYRACUSE on Fld
REMARKS: Rnwy 6-24 limited to acft 12,500 lbs GWT or less.
SYRACUSE TOWER 126.2 122.5R 119.9
SYRACUSE GND CON 121.7
SYRACUSE APP CON 126.2 122.5R 120.3 117.0T 109.9T 350T
SYRACUSE DEP CON[1] 125.6
ILS 109.9 I-SYR Apch Brg 278°
REMARKS: [1]To be comsnd.

NEW YORK–*Continued*

UTICA
ONEIDA COUNTY *IFR* 7 NW (318° 11.6NM from UCA VOR)
742 H60/15-33 (2) (S-60, T-80, TT) BL4, 6, 8 S5 F2
U2 FSS: UTICA on Fld
REMARKS: Rgt tfc rnwy 9 & 15.
UTICA TOWER 118.1 122.5R 109.3T
UTICA GND CON 121.9
RADAR SERVICES: (BCN)
GRIFFISS APP CON 118.5 134.1 122.5R
GRIFFISS DEP CON 120.9
ILS 109.3 I-UCA Apch Brg 329°

WHITE PLAINS
WESTCHESTER COUNTY *IFR* 3 NE (162° 4.8 NM from HP LOM)
439 H65/16-34 (3) (S-60, T-220, TT) BL4, 8 S5
F5, JP5 U2 FSS: ISLIP (SC3-4330)
REMARKS: Rnwy 12 & 30 apchs restricted by trees-glide angle 1 to 1. Fee.
TOWER 119.7 126.2 122.5R 109.7T 3023.5Rx
GND CON 121.9
APP CON 121.2 122.5R 109.7T 3023.5Rx
ILS 109.7 I-HPN Apch Brg 162° BC unusable

NORTH CAROLINA

ASHEVILLE MUNI *IFR* 9 S (160° 5.8 NM from ABN RBn)
2161 H65/16-34 (1) (S-24, T-75, TT-125) BL6, 8 S5
F5, JP1, 4 U2 VASI: Rnwy 16 RVV: Rnwy 34
FSS: GREER (LC 684-4401)
REMARKS: Rgt tfc NW.
TOWER 121.1 122.5R GND CON 121.9
APP CON 123.6 122.5R
ILS 110.5 I-AVL Apch Brg 342° BC restricted
REMARKS: Localizer unusable from MM to touchdown.

CHARLOTTE
DOUGLAS MUNI *IFR* 4 W (CLT VOR on Fld)
748 H75/5-23 (2) (S-50, T , TT)* BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 5 FSS: HICKORY (LC ED 2-7262)
REMARKS: *(Rnwy 18-36-(S-60))
CHARLOTTE TOWER 118.1 126.2 124.0 122.5R
109.5T
CHARLOTTE GND CON 121.9
RADAR SERVICES:
CHARLOTTE APP CON 120.5 126.2 122.5R 119.0
109.5T
CHARLOTTE DEP CON 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceiling 400 Vsby 1 Mi
Min Alt 1148
ILS 109.5 I-CLT Apch Brg 050° BC unusable
REMARKS: [1]On apch, maint 1300 or abv til 2.5 mi fm apch end of rnwy 23 on final.
VOT: 112.0

NORTH CAROLINA–*Continued*

FAYETTEVILLE
GRANNIS FIELD *IFR* 3 S (FAY VOR on Fld)
189 H50/3-21 (2) (S-64, T-120, TT-200) BL4, 6 S5
F4, JP4 FSS: FAYETTEVILLE
REMARKS: Rnwy 16 & 34 apch restricted by trees-glide angle 0 to 1.
FAYETTEVILLE TOWER 118.3 122.5R
FAYETTEVILLE GND CON 121.7
RADAR SERVICES: (BCN)
FAYETTEVILLE APP CON[1] 120.6
FAYETTEVILLE DEP CON 120.4
ILS 110.5 I-GRA Apch Brg 034° BC unusable
REMARKS: [1]IFF/SIF svc avbl.

GREENSBORO-HIGH POINT *IFR* 7 W (030° 3 NM from GSO VOR
927 H64/14-32 (2) (S-40, T-55, TT) BL4, 6, 8 S5
F4, JP5 U2 RVV: Rnwy 14 FSS: RALEIGH (LC BR 5634
GREENSBORO TOWER 119.1 126.2 122.5R 109.9T
GREENSBORO GND CON 121.9
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 116.3
109.9T GREENSBORO DEP CON 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt
1327
ILS 109.9 I-GSO Apch Brg 138°

RALEIGH-DURHAM *IFR* 9 NW (RDU VOR on Fld)
435 H75/5-23 (3) (S-111, T-135, TT-300) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 5 FSS: RALEIGH
REMARKS: No signal btn SS-SR indc gnd vsby of less than 2.6 NM and/or ceil less than 1000 ft. Rnwy 14-32 and 5-23 ft txwys lmtd to 50,000 lbs GWT
TOWER 119.3 126.2 122.5R 109.5T GND CON 121.9
RADAR SERVICES: (BCN)
RALEIGH APP CON[1] 125.3 122.5R 120.6
TFC INFO Inbnd acft ctc APP CON 25 mi out on 125.3.
RALEIGH DEP CON 120.6 124.8
ILS 109.5 I-RDU Apch Brg 049°
REMARKS: [1]IFF/SIF

WILMINGTON
NEW HANOVER CO *IFR* 2 NE (201° 5 NM from ILM VOR)
31 H70/16-34 (3) (S-120, T , TT)* BL4, 6, 8 S5
F5, JP5 FSS: NEW BERN (LC ME
REMARKS: *(S-90, T-120, TT-212) avbl rnwy 5-23
(S-30, T-48, TT-86) avbl rnwy 9-27
WILMINGTON TOWER 119.9 122.5R 110.3T 388T
CLRNC DEL 121.9
WILMINGTON GND CON 121.9
WILMINGTON APP CON 123.6 122.5R 110.3T
ILS* 110.3 I-ILM Apch Brg 343° BC unusable
REMARKS: Shut down til May 15 for relocation.

NORTH CAROLINA–*Continued*

STON-SALEM
ITH REYNOLDS *IFR* 2 NE (328° 3.9 NM from IN LOM)
969 H66 15-33 (3) (S-45, T-60, TT) BL4, 6, 8 S5
F5, JP5 U2 RVV: Rnwy 33
FSS: WINSTON SALEM (LC PA51731)
REMARKS: Apch and rnwy lgts 15-33 oper 11PM-7AM only.
WINSTON-SALEM TOWER 118.7 126.2 122.7R 278T
WINSTON-SALEM GND CON 121.7
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 109.9T
GREENSBORO DEP CON 124.6
ILS 110.3 I-INT Apch Brg 328° BC unusable
REMARKS: [1]Oper 1200-0400Z

NORTH DAKOTA

ARCK MUNI *IFR* 2 SE (272° 3.6 NM from BIS VOR)
1653 H69/12-30 (3) (S-90, T-120, TT) BL4, 6, 8 S5
F4 RVV: Rnwy 30 FSS: BISMARCK on Fld
REMARKS: Rnwys 17-35, 2-20 and E-W taxwy restricted to acft over 26,000 lbs except when auth by twr. First 800' rnwy 12 clsd to lndg acft.
TOWER 118.3 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.3
ILS 110.3 I-BIS Apch Brg 306°

GO
CTOR FIELD *IFR* 2 NW (171° 4.6 NM from FAR RBn)
300 H91/17-35 (3) (S-90, T-120, TT) BL4, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwys 17, 35 FSS: FARGO on Fld
FARGO TOWER 118.3 122.5R
FARGO GND CON 121.9
VFR ADV Ctc APP CON on 125.8mc 25 mi out.
FARGO APP CON 125.8 110.3T 365T
LS 110.3 I-FAR Apch Brg 351°

OHIO

N MUNI *IFR* Adj SE (255° 12.4 NM from ACO VOR) AOE
059 H53/7-25 (4) BL4, 6 S5 F5, JP1
FSS: AKRON on Fld
EMARKS: Poles E. Obstns lgt inop SE hill apch rnwy 32
OWER 120.1 122.7 110.9T 362T[1]
GND CON 121.9
ADAR SERVICES:
AKRON-CANTON APP CON 125.5 126.2 122.5R 109.5T
AKRON-CANTON DEP CON 118.6
LS 110.9 I-AKR Apch Brg 246°
EMARKS: [1]To be decomsnd.

OHIO–*Continued*

AKRON-CANTON *IFR* 10 SE (227° 15.4 NM from ACO VOR)
1228 H56/1-19 (4) (S-84, T-108, TT-168) BL4, 6, 8, 11 S5
F5, JP1 RVV: Rnwy 1 REIL: Rnwy 23 FSS: AKRON
REMARKS: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
TOWER 126.2 122.5R 118.3 109.5T
GND CON 121.7
RADAR SERVICES:
APP CON 125.5 126.2 122.5R 109.5T
DEP CON 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceiling 400 Vsby 1 mi Min Alt 1628
ILS 109.5 I-CAK Apch Brg 006°
VOT: 112.0

COVINGTON, KY (CINCINNATI, OHIO)
GREATER CINCINNATI *IFR* 9 SW Cincinnati (043° 2.3 NM from CVG VOR)
890 H86/18-36 (3) (S-120, T-200, TT-345) BL4, 6, 8 S5
F5 FSS: CINCINNATI
REMARKS: Rnwy 4-22 clsd to acft over 30,000 lbs. Fee.
CINCINNATI TOWER 118.3 126.2 122.7R 317T[1]
CLRNC DEL 121.3
CINCINNATI GND CON 121.7
RADAR SERVICES:
CINCINNATI APP CON 124.7 126.2 122.7R 119.7 112.9T CINCINNATI DEP CON 121.0
ASR Rnwys 4, 9, 18, 36 Ceiling 400 Vis 1 mi Min Alt 1290. Rnwys 22, 27 Ceiling 700 Vis 1 mi Min Alt 1590
ILS 109.9 I-CVG Apch Brng 360° 110.9 I-SIC Apch Brng 180°
VHF DF available, contact tower
REMARKS: [1]To be decomsnd.
VOT: 112.0

CINCINNATI MUN-LUNKEN FLD *IFR* 3 SE (227° 4.4 NM from LUK Rng.)
488 H51/6-24 (3) (Max-45) BL4, 8 S5 F4, JP4 U2
FSS: CINCINNATI on Fld
LUNKEN TOWER 126.2 122.5R 118.7 366T[1]
LUNKEN GND CON 121.9
RADAR SERVICES:
CINCINNATI APP CON 119.7 126.2 124.7 122.7R 112.9T CINCINNATI DEP CON 121.0
REMARKS: [1]To be decomsnd.

CLEVELAND
BURKE LAKEFRONT Adj N (069 23.6 NM from CLE VOR)
584 H52/6-24 (1) (S-31, T-37, TT-55) BL6 S5 F4, JP1 U2
FSS: CLEVELAND (DL)
REMARKS: Fee.
LAKEFRONT TOWER[3] 126.2 122.5R 120.9
LAKEFRONT GND CON 121.9
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 1200-0400Z

OHIO—*Continued*

CLEVELAND-HOPKINS 9 SW (015° 4.5 NM from STG VOR) AOE
792 H90/5R-23L (5) (S-54, T-78, T-126)* BL4, 6, 8A, 10
S5 F5, JP1, 4 U2 VASI: Rwy 23R RVR: Rnwy 5R
FSS: CLEVELAND on Fld
REMARKS: *(S-125, T-188, TT-338) avbl rnwy 9-27.
CLEVELAND TOWER 119.9 126.2 122.7R
CLRNC DEL 127.4
CLEVELAND GND CON 121.7
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2] 110.7T
109.9T CLEVELAND DEP CON 121.0
ASR Rnwys 5R, 5L, 9, 18R, 18L, 23R, 23L, 27, 36R, 36L
Ceiling 500 Vsby 1½ mi Min Alt 1292
ILS 109.9 I-CLE Apch Brng 054° 110.7 I-CEE Apch
Brng 277° Unusable below 1030′ MSL
VHF/DF available, contact tower
REMARKS: [1]270°-089° [2]090°-269°
VOT: 110.4

COLUMBUS MUNI *IFR* 6 E (276° 5.4 NM from CM LOM)
816 H107/10R-28L (5) (S-100, T-200, TT-370)* BL4, 6, 8,11
S5 F5, JP1, 4 U2 RVV: Rnwy 10L
REIL: Rnwys 10R, 28R FSS: COLUMBUS on Fld
REMARKS: *(S-180, T-200, TT-400) avbl rnwy 10L-28R.
Due non-vsby some areas of fld, ctc twr.
TOWER 126.2 121.1 109.1T 3023.5R
CLRNC DEL 121.3 GND CON 121.9
RADAR SERVICES:
APP CON 119.0 126.2 125.4 122.5R 109.5T
3023.5R DEP CON 120.5 126.2
ASR Rnwys 10R, 10L, 13, 19, 23, 28R, 28L, 31 Ceil 500
Vsby 1 mi Min Alt 1316. Rnwys 1, 5 Ceil 600 Vsby 1
mi Min Alt 1416
ILS 109.1 I-CBP Apch Brg 096° 109.5 I-CMH Apch Brg
276°
VHF/DF available, contact tower
VOT: 111.0

DAYTON

JAMES M COX-DAYTON MUNI *IFR* 9 N (236° 3.9 NM from TPC RBn.)
1008 H70/6-24 (2) (S-120, T-180, TT-400) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 6 REIL: Rnwy 5
FSS: DAYTON on Fld
REMARKS: P-line SE.
DAYTON TOWER 119.5 126.2 122.5R
CLRNC DEL 125.2
DAYTON GND CON 121.9
RADAR SERVICES: (BCN)
DAYTON APP CON 118.0 122.7R 111.6T 110.3T
DAYTON DEP CON 119.9
ILS 110.3 I-DAY Apch Brg 056°
VOT: 111.0

MANSFIELD MUNI 3 N (131° 4.1 NM from MFD VOR)
1296 H68/14-32 (2) (S-75, T-100, T-) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 32 FSS: MANSFIELD on Fld
TOWER 119.3 122.5R 110.5T GND CON 121.9
APP CON 124.7 122.5R 110.5T 108.8T
ILS 110.5 I-MFD Apch Brg 320°

OHIO—*Continued*

SPRINGFIELD MUNI *IFR* 5 S (237° 2.6 NM from SGH RBn)
1049 H90/5-23 (3) (S-190, T-200, TT-380) BL4 S5
F4, JP4 U2 FSS: DAYTON (LC FA 2[illegible]
TOWER [2]120.7 126.2 GND CON 121.7
RADAR SERVICES: (BCN)
DAYTON APP CON [1]118.4 DAYTON DEP CON 1[illegible]4
134.1
REMARKS: [1]All IFR tfc lndg this area call DAYTON APP CON. [2]Oper 1245-2130Z dly clsd hol.

TOLEDO, EXPRESS *IFR* 9 SW (320° 10.5 NM from VWV VOR)
684 H87/7-25 (2) (S-107, T-163, TT-287) BL4, 6 S5
F5, JP4 U2 RVV: Rnwy 7 FSS: FINDLAY (LC 242-[illegible]
TOLEDO TOWER 118.1 126.2 122.5R 109.7T
TOLEDO GND CON 121.9
RADAR SERVICES: (BCN)
TOLEDO APP CON 123.8 128.0 122.5R 113.1T
109.7T TOLEDO DEP CON 119.2
ASR Rnwys 7, 16, 25, 34 Ceiling 400 Vsby 1 mi M-1
1084
ILS 109.7 I-TOL Apch Brg 069°

WILLOUGHBY

LOST NATION *IFR* 2 N (LNN RBn on field)
626 H50/9-27 (3) BL4 S5 F4, JP4
FSS: CLEVELAND [illegible]
REMARKS: Fee. Rnwy 9, 27 and 36 restricted by pole line-glide angle 4 to 1 and less.
TOWER[3] 120.7 122.5R
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 0230-1430Z

YOUNGSTOWN MUNI *IFR* 10 N (183° 4.1 NM from YNG VOR)
1196 H75/14-32 (3) (S-116, T-160, TT-270) BL4, 6, 8 S[illegible]
F4 U2 RVV: Rnwy 32 FSS: YOUNGSTOWN [illegible]
REMARKS: Rnwy 5 apch restricted by brush-glide angle 1 to 1.
TOWER 119.5 126.2 122.5R GND CON 121.9
APP CON 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320°
VHF/DF available, contact tower.

OKLAHOMA

MUSKOGEE

DAVIS FLD *IFR* 6 S (MKO RBn on field)
610 H72/13-31 (2) (S-60, T-160, TT-) BL6, 8
FSS: TULSA [illegible]
TOWER[1] 119.2 126.2
REMARKS: [1]1430-2230Z

OKLAHOMA–Continued

.AHOMA CITY
ILEY POST *IFR* 7 NW (040° 8.1 NM from OKC VOR
:303 H54/17-35 (3) BL4 S5 F4, JP4 U2
FSS: OKLAHOMA CITY on Fld
REMARKS: Rgt tfc rnwys 12 and 17.
TOWER[1] 119.7 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5
OKLAHOMA CITY DEP CON 121.1
REMARKS: [1]Oper 1200-0400Z.

AHOMA CITY
LL ROGERS WORLD *IFR* 6 SW (097° 8.1 NM from OKC VOR)
:284 H98 17-35 (3) (S-120, T-160, TT) BL4, 6, 8 S5
FS, JP1, 4 U2 VASI: Rnwy 17 RVV: Rnwy 35
FSS: OKLAHOMA CITY (DL)
REMARKS: Rnwy 3-21 and txwy (C-1) W side rnwy 3 restricted to 15000 lbs or less.
TOWER 118.3 126.2R 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5 OKLAHOMA CITY DEP CON 121.1
ASR Rnwy 17, 35 Ceiling 400 Vsby 1 mi Min Alt 1684
ILS 109.9 I-OKC Apch Brg 350°
VOT: 108.8

.SA INTL *IFR* 5 NE (259° 4.3 NM from TUL VOR)
674 H100/17L-35R (5) (S-200, T-200, TT-400) BL4, 6, 8
S5 F5, JP1, 4 U2 VASI: Rwy 17L RVR: Rnwy 35R
FSS: TULSA on Fld
REMARKS: Rgt tfc rnwys 17 R, 21R. Rnwy 35L thsld displcd 510', 3690' avbl for tkof.
TOWER 118.7 126.2 122.5R
CLRNC DEL 124.0 GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1 122.5R 110.3T DEP CON 120.7
TFC INFO Ctc APP CON on 119.1
ASR Rnwys 17L, 26[1], 35R Ceiling 400 Vsby 1 mi
Min Alt 1074
ILS 109.7 I-DWE Apch Brg 174° 110.3 I-TUL Apch Brg 354° BC unusable
REMARKS: [1]500-1 required when apch is made until psn is estab over 910 stack 3 mi E.

OREGON

·ENE
AHLON-SWEET FLD *IFR* 7 NW (EUG VOR on field)
365 H55/16-34 (2) (S-100, T-200, TT-380) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 16 FSS: EUGENE on Fld
REMARKS: Rnwy lgts on req thru FSS.
EUGENE TOWER 118.9 122.5R
EUGENE APP CON 118.9 122.5R 112.9T
EUGENE GND CON 121.9
ILS 109.5 I-EUG Apch Brg 159°

OREGON–Continued

KLAMATH FALLS
KINGSLEY FLD *IFR* 4 SE (LMT VOR on Fld)
4092 H103 14-32 (3) (S-100, T-200, TT380) BL4, 6, 8 S5
F4, JP1 U2 FSS: KLAMATH FALLS on Fld
TOWER 118.5 126.2 122.5R 269T
GND CON 121.9
KLAMATH APP CON 118.5 126.2 122.5R 115.9T
242T
ILS 109.5 I-LMT Apch Brg 318°

MEDFORD MUNI *IFR* 2 N (145° 6.3 NM from MFR VOR)
1330 H54 14-32 (2) (S-80, T-120, TT-180) BL4, 6, 8 S5
F4, JP4, 5 U2 RVV: Rnwy 14 FSS: MEDFORD on Fld
TOWER 118.3 126.2 122.5R 119.8 278T
GND CON 121.9
APP CON 118.3 126.2 122.5R 278T 263T
ILS 110.3 I-MFR Apch Brg 139°
VHF/DF available, contact tower.

PENDLETON MUNI *IFR* 2 NW (071° 3.6 NM from PDT VOR)
1493 H63 7L-25R (4) (S-75, T-100, TT–) BL4, 6, 8 S5
F4 U2 RVV: Rnwy 25 FSS: PENDLETON on Fld
REMARKS: Rnwy 25L threshold displaced 821' W. 2029 ft avbl lndg rnwy 25L, 7R-25L daylite operns only lgt planes.
TOWER 118.7 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.7 114.7T 3023.5Rx 341T
ILS 110.3 I-PDT Apch Brg 250°

PORTLAND INTL *IFR* 4 NE (159° 9.2 NM from PDX VOR)

23 H88/10R-28L (3) (S-200, T-200, TT-400) BL4, 6, 8A, 10
S5 F5, JP4 U2 RVV: Rnwy 28R RVR: Rnwy 10R
FSS: PORTLAND on Fld
TOWER 118.7 126.2 122.7R CLRNC DEL 119.0
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1[2] 126.2 122.5R 119.8[3] 109.9T
DEP CON 124.9
TFC INFO Ctc APP CON
PAR Rnwy 10R Ceiling 200 Vsby ½ mi Min Alt 223
ASR Rnwys 10R[1], 28R Ceiling 700 Vsby 1 mi Min Alt 723
ILS 109.9 I-PDX Apch Brg 098° BC restd 111.3 I-IAP Apch Brg 278°
VHF/DF available, contact tower.
REMARKS: [1]Min alt over 3-mi radar fix inbnd on final, 900. [2]North [3]South
VOT: 111.0

SALEM-MCNARY FLD *IFR* 1 SE (309° 4 NM from SL LOM)
207 H50/13-31 (2) (S-66, T-88, TT-75) BL4, 6 S5 F4
U1 RVV: Rnwy 31 FSS: PORTLAND (DL)
REMARKS: Rnwy 16-34 unlgtd clsd daily fm 30 mins before SS til 30 mins after SR and when wea is below VFR mins.
ILS 110.3 I-SLE Apch Brg 309°

OREGON–Continued

TROUTDALE Adj NW (124° 13.6 from PDX VOR)
36 H46/7-25 (1) (Max-10) BL4 S5 F4 U2
RVV: Rnwy 7 FSS: PORTLAND (DL)
REMARKS: Rnwy 7 threshold displaced 400 ft E. 4241 ft avbl lndg rnwy 7. Rnwy 25 threshold displaced 500 ft W. 4141 ft avbl lndg rnwy 25.
TOWER 120.5 122.5R GND CON 121.7

PENNSYLVANIA

ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE (180° 4.1 NM from ABE VOR)
388 H62/6-24 (4) (S55, T-76, TT-125) BL4, 6, 8 S5 F5 U2 RVV: Rnwy 6 FSS: ALLENTOWN on Fld
REMARKS: 5210' avbl lndg rnwy 24. Rnwy 14-32 open for ngt opern 2415' btn threshold lgts plus 175' of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
ALLENTOWN TOWER 120.5 122.5R 233T
CLRNC DEL 121.9
ALLENTOWN GND CON 121.9
ALLENTOWN APP CON 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061°

ERIE
PORT ERIE *IFR* 5 SW (059° 6 NM from ERI VOR)
732 H50/6-24 (3) (S-65, T-102, TT-190) BL4, 6, 8 S5 F4, JP1 U2 RVV: Rnwy 24 FSS: ERIE on Fld
TOWER 118.1 122.5R 110.3T 278T[1] GND CON 121.9
APP CON 119.0 122.5R 110.3T
ILS 110.3 I-ERI Apch Brg 059° BC unusable
REMARKS: To be decomsnd.

HARRISBURG-YORK STATE *IFR* 3 S (108° 7.5 NM from HAR VOR)
347 H50/8-26 (3) (S-65, T-105, TT-185) BL4, 6, 8 S5 F4, JP1 U2 RVV: Rnwy 8 FSS: HARRISBURG on Fld
REMARKS: Rnwy 8 blkd. Rgt tfc rnwys 20 & 26. wt limit 130,000 lbs.
HARRISBURG TOWER 119.5 126.2 122.5R 118.8 109.1T
HARRISBURG GND CON 121.9
HARRISBURG APP CON 120.9 126.2 122.5R 109.1T
HARRISBURG DEP CON 118.8
ASR Rnwys 8, 30 Ceiling 1100 Vsby 2 mi Min Alt 1447. Rnwy 26 Ceiling 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I-HAR Apch Brg 079° BC unusable

PHILADELPHIA
NORTH PHILADELPHIA *IFR* 10 NE (PNE VOR on FLD)
120 H50/6-24 (2) (Max-30) BL4, 8 S5 F4, JP1 U2 FSS: PHILADELPHIA on Fld
REMARKS: Rnwy 6 apch restricted by poleline.
TOWER 121.3 126.2 122.5R 112.0T
GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089° [2]090°-269°

PENNSYLVANIA–Continued

PHILADELPHIA INTL *IFR* 5 SW (085° 5.9 NM from PH LOM
14 H95/9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A S5 F5, JP1, 4, 5 U2 RVR: Rnwy 9
FSS: PHILADELPHIA [illegible]
REMARKS: Rnwy 22 & 27 apch restricted by fence-glide a-[illegible] 1 to 1. Ctn-const vic rnwy 27.
TOWER 118.5 122.7R CLRNC DEL 127.7
GND CON 121.9
RADAR SERVICES:
APP CON 127.2[1] 123.8[2] 122.7R
DEP CON 119.0[1] 128.55[2]
PAR Rnwy 9 Ceiling 200 Vsby ½ mi Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceiling 500 Vsby 1 mi M-A 514
ILS 109.3 I-PHL Apch Brg 085° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°
VOT: 111.0

PITTSBURGH
ALLEGHENY COUNTY *IFR* 4 S (052° 6.4 NM from PIT VOR
1252 H55/9-27 (3) (S-70, T-120, TT-210) BL 6, 8, 11 S5 F5, JP5 U2 REIL: Rnwy 9 FSS: PITTSBURGH [illegible]
TOWER 121.1 126.2 122.5R 109.1T GND CON 121.7
RADAR SERVICES:
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.7
PITTSBURGH DEP CON 125.9
ILS 109.1 I-AGC Apch brg 275° BC unusable
REMARKS: [1]270°-089° [2]090°-269°

GREATER PITTSBURGH *IFR* 12 NW (IRL VOR on FLD)
1203 H105/10L-28R (4) (S-120, T-200, TT-400) BL4, 6, 8A, 10, 14, 15 S5 F5, JP1, 4 VASI: Rnwy 28L RVR: Rnwy 10L REIL: Rnwy 32 FSS: PITTSBURGH [illegible]
REMARKS: Fee. Steep drop-off apch end rnwy 28. Rnwy 14-32 & txwy clsd until Jan 1965. Rnwy 28L threshold displaced 491 ft W. 7509 ft avbl lndg rnwy 28L. US Customs lndg rts arpt.
PITTSBURGH TOWER 119.1 126.2 122.7R 110.3T 300T
CLRNC DEL 121.3 PITTSBURGH GND CON 121.9
RADAR SERVICES: (BCN)
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.7
PITTSBURGH DEP CON 125.9
TFC INFO Ctc Radar APP CON on 123.6 when approaching fm NW & NE, and on 118.7 fm SE & SW.
PAR Rnwy 28L Ceiling 200 Vsby ½ mi Min Alt 1403
ASR Rnwys 5, 10R, 14, 23, 28R, 28L, 32 Ceil 500 Vsby 1 mi Min Alt 1703. Rnwy 10L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° 111.7 I-LXB Apch Brg 097° BC unusable
VHF/DF available, contact tower.
REMARKS: 270°-089° [2]090°-269°. IFF svc avbl.
VOT: 111.2

PENNSYLVANIA–Continued

ADING
ENERAL SPAATZ FIELD *IFR* 2 NW (001° 3.9 NM from RD LOM)
343 H51 18-36 (3) (S-30, T-45, TT-175) BL4, 6, 7 S5
F4, JP4 U2 FSS: HARRISBURG (DL)
REMARKS: Rgt tfc rnwy 5, 13 and 36.
READING TOWER 119.9 126.2 122.5R 109.5R
READING GND CON 121.9
READING APP CON 119.9 126.2 122.5R 109.5T
ILS 109.5 I-RDG Apch Brg 001° BC unusable
VHF DF available, contact tower.

KES-BARRE-SCRANTON *IFR* 9 NE (043° 3.9 NM from AV LOM)
956 H52/4-22 (3) (S-90, T-145, TT-240) BL4-6, 8A, 9
F5, JP4 RVV: Rnwy 4 FSS: WILKES-BARRE on Fld
REMARKS: Rgt tfc rnwys 10, 16, 22, 18. Lndg fee except for pvt owned acft.
FAA DEP PROC: Rnwy 16, 22 Right hand tfc pattern.
WILKES-BARRE TOWER 120.1 122.5R 109.9T
WILKES-BARRE GND CON 121.9
RADAR SERVICES:
WILKES-BARRE APP CON 124.5 122.5R 109.9T
WILKES-BARRE DEP CON 126.3
ASR Rnwy 4 Coil 1000 Vsby 2 mi Min Alt 1956. Rnwy 10 Coil 900 Vsby 1½ mi Min Alt 1856. Rnwy 22 Coil 800 Vsby 1½ mi Min Alt 1756
ILS 109.9 I-AVP Apch Brg 043° BC Unusable

.IAMSPORT-LYCOMING CO *IFR* 4 E (285° 6.1 NM from IP RNG)
528 H50/9-27 (3) (S-44, T-70, TT-110) BL4, 6, 8 S5
F4, JP1 FSS: WILLIAMSPORT on Fld
REMARKS: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 8000 lbs and under. Rgt tfc rnwy 33, 27, 30. Rnwy 27 apch restricted by pole-glide angle 7 to 1. Rnwy 15 apch restricted by poleline-glide angle 1 to 1.
WILLIAMSPORT TOWER 119.1 122.5R
WILLIAMSPORT GND CON 121.9
WILLIAMSPORT APP CON 124.9 122.5R
LS 110.1 I-IPT Apch Brg 266° BC Unusable

RHODE ISLAND

VIDENCE
EEN *IFR* 6 S (PVD VOR on fld)
56 H54/5R-23L (4) (S-90, T , TT) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 5R FSS: PROVIDENCE on Fld
REMARKS: Fee. No mult engine lndgs 5L, no tkofs 23R.
TOWER 118.7[1] 120.7[2] 126.2 122.5R 109.3T 368T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
LS 109.3 I-PVD Apch Brg 046° BC Unusable
REMARKS: [1]To be decomsnd. [2]To be comsnd.

SOUTH CAROLINA

CHARLESTON AFB/MUNI *IFR* 9 NW (CHS VOR on fld)
45 H90 15-33 (2) (S-50, T-155, TT-305) BL4, 6, S S5
FS, JP5 U2 VASI: Rnwys 15, 21, & 33
RVR: Rnwy 15 FSS: CHARLESTON on Fld
TOWER 126.2 122.5R 121.0 113.5T 109.7T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
APP CON 119.3 118.5 113.5T 109.7T 278T
DEP CON 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445
ILS 109.7 I-CHS Apch Brg 149° BC Unusable
VOT: 111.0

COLUMBIA *IFR* 5 SW (331° 5.7 NM from CAE VOR)
211 H50 5-23 (1) (S-80, T-105, TT) BL6, 8 S5 F5 JP1 U2 FSS: FLORENCE
TOWER 126.2 122.5R 119.5 110.3T
GND CON 121.9
APP CON 118.2 122.5R 114.7T 110.3T
RADAR SERVICES:
ILS* 110.3 I-CAE Apch Brg 046° BC Unusable
REMARKS: *Shutdown until Mar 1.

OWENS FIELD 1 SE (024° 8 NM from CAE VOR)
203 H36/15-33 (2) (S-150) L4 F4 U1 FSS: FLORENCE
REMARKS: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. Rnwy 33 apch restricted by poleline-glide angle 5 to 1. Rnwy 15 & 25 apch restricted by roads-glide angle 0 to 1. Rnwy 7 apch restricted by poleline-glide angle 0 to 1.
TOWER[1] 126.2
COLUMBIA APP CON 118.2 122.5R 110.3T 227T
REMARKS: [1]Oper 1200-2400Z daily. Adv svc other hrs.

GREENVILLE MUNI DOWNTOWN *IFR* 2 E (002° 3.6 NM from GR LOM)
1047 H54/18-36 (3) (S-40, T- , TT-) BL4, 6 S5
F4, JP1 U2 FSS: GREER (LC 239-3738)
REMARKS: Rgt tfc rnwys 18, 27, 23.
TOWER 119.9 126.2 122.5R 109.7T 391T
GND CON 121.9
RADAR SERVICES:
APP CON 118.0 126.2 124.3 122.5R 119.4 109.7T
DEP CON 118.8
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447
ILS 109.7 I-GRL Apch Brg 002° BC unusable

GREER
GREENVILLE-SPARTANBURG *IFR* 3 S (033° 5.2 NM from GS LOM)
961 H76/3-21 (1) (MAX-60) BL6, 8 S5 F5, JP5 U2
RVV: Rnwy 3 FSS: GREER on Fld
REMARKS: Fee commercial only.
GREER TOWER 120.1 126.2 122.7R 115.7T 109.3T 209T
GREER GND CON 121.8

SOUTH CAROLINA–*Continued*

GREENVILLE-SPARTANBURG–(Continued)

RADAR SERVICES:
GREENVILLE APP CON 118.0 126.2 124.3 122.5R 119.4 109.7T
GREENVILLE DEP CON 118.8
ILS 109.3 I-GSP Apch Brg 033°

SPARTANBURG DOWNTOWN MEMORIAL *IFR* 2 SW (195° 6.9 NM from SPA VOR)
816 H52/4-22 (3) (S-30, T- , TT-) BL4, 6 S5
F5, JP1-5 FSS: GREER (LC 585-5470)
REMARKS: Unlgtd wind cone.
TOWER[1] 118.3 126.2 122.5R 317T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES:
GREENVILLE APP CON 124.3
GREENVILLE DEP CON 118.8
REMARKS: [1]Oper 1100-0300Z.

SOUTH DAKOTA

SIOUX FALLS
JOE FOSS FIELD *IFR* 2 NW (147° 4.1 NM from FSD VOR)
1428 H90/3-21 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwys 3, 21 FSS: HURON on Fld
REMARKS: Rnwy 9-27 restricted of acft over 30,000 lbs, rnwy 3-21 & 15-33 rest to acft over 120,000 lbs.
TOWER 118.3 122.5R GND CON 121.9
VFR ADV Ctc APP CON on 125.8 aprx 25 mi out
APP CON 125.8 122.5R 115.0T 109.9T 245T
ILS 109.9 I-FSD Apch Brg 026°

TENNESSEE

BRISTOL
TRI-CITY MUNI *IFR* 12 SW (224° 6 NM from TR LOM)
1519 H66/4-22 (2) (S-90, T-120, TT-190) BL6, 8 S5 F5, JP1 U2 RVV: Rnwy 22 FSS: TRI-CITY on Fld
REMARKS: Rnwy 9-27 restricted to acft over 30,000 lbs GWT.
TOWER 119.5 126.2 122.5R 114.6T 109.9T
GND CON 121.9
APP CON 125.7 126.2 122.5R 114.6T
DEP CON 119.5 126.2
ILS 109.9 I-TRI Apch Brg 224°

CHATTANOOGA
LOVELL FIELD *IFR* 5 E (332° 4.9 NM from CHA VOR)
682 H62/1-19 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F5, JP4, 5 U2 VASI: Rnwy 1 RVV: Rnwy 19
FSS: CROSSVILLE (LC AM 7-5343)
CHATTANOOGA TOWER 118.3 126.2 109.5T 278T
CHATTANOOGA GND CON 121.9
VFR ADV Ctc APP CON on 125.1 mc 25 mi out.
CHATTANOOGA APP CON 125.1 126.2 115.8T 109.5T
ILS 109.5 I-CHA Apch Brg 196°

TENNESSEE–*Continued*

KNOXVILLE
McGHEE-TYSON *IFR* 11 S (221° 6.6 NM from TYS VOR)
989 H90/4L-22R (3) (S-60, T-90, TT-200) BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 4L FSS: KNOXVILLE on Fld
REMARKS: Rgt tfc rnwys 4R & 22R.
KNOXVILLE TOWER 118.7 126.2 122.5R 116.4T 110.3T
KNOXVILLE GND CON 121.9
RADAR SERVICES:
KNOXVILLE APP CON 123.9 122.5R 116.4T 110.3T
KNOXVILLE DEP CON 120.2
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389. Rnwy 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 045°
VHF/DF available, contact tower.
REMARKS: VOT: 112.0

MEMPHIS METROPOLITAN *IFR* 3 S (287° 3 NM from MEM VOR)
331 H89/17-35 (4) (S-100, T-200, TT-400) BL4, 6, 8A, 12, 15 S5 F5, JP5 U2 VASI: Rnwy 27
RVR: Rnwy 9 FSS: MEMPHIS on Fld
REMARKS: Rnwys 3-21, 17-35 & 14-32 restricted to 100,000 lbs GWT. Rnwy 9-27 restricted to 50,000 lbs single wheel. 3816 ft avbl lndg & tkots both direction rnwy 14-32.
TOWER 126.2 122.5R 118.3 115.5T 109.5T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T DEP CON 119.7
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM Apch Brg 087° 110.5 I-TSE Apch Brg 354° BC unusable
VHF/DF available, contact tower
REMARKS: [1]South apch [2]North apch. IFF/SIF svc avbl.
VOT: 111.0

NASHVILLE METROPOLITAN *IFR* 5 SE (312° 4.5 NM from BNA VOR)
597 H80/13-31 (3) (S-76, T-130, TT-220) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 2L FSS: NASHVILLE on Fld
REMARKS: 1700 ft N end of rnwy 2L-20R clsd. 6000 ft avbl dur daylgt hrs only. 6965 ft avbl with 15 mins notice under adverse conditions. 734 ft new const on N end of rnwy 2L-20R unusable. Rnwy 2R-20L-240' overrun N end. 1185' S end
BERRY TOWER 126.2 122.5R 119.1 109.9T
BERRY GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 120.6 122.5R 109.9T
DEP CON 123.7
TFC INFO Ctc APP CON on 120.6 25 mi out.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 015°
VHF/DF available, contact tower
REMARKS: [1]Maint 1200 til 2 mi fm end of rnwy on final to rnwy 20R.
VOT: 111.0

TEXAS

.ENE MUNI *IFR* 3 SE (102° 9.5 NM from ABI VOR)
1778 H60/17-35 (2) (MAX-30) BL4, 6, 8 S5 F4 U2
RVV: Rnwy 35 FSS: ABILENE on F'd
REMARKS: NW-SE rwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35.
TOWER 126.2 122.7R 120.1 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.5 134.1 126.2 113.7T 110.3T 109.2T
DEP CON 125.0
ILS 110.3 I-ABI Apch Brg 350°

RILLO AFB/MUNI *IFR* 8 E (210° 4.5 NM from AMA VOR)
3607 H135/3-21 (2) (S-65, T-330, TT-470) BL6, 8 S5
F5, JP1 VASI: Rnwys 3, 21 RVV: Rnwys 3, 21
FSS: AMARILLO on Fld
REMARKS: Rgt tfc rnwy 3. Rectangular tfc ptn 5100 ft MSL. Overhead tfc ptn 5400 ft MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.
TOWER 126.2 122.5R 118.3 GND CON 121.9
RADAR SERVICES:
APP CON 121.1 126.2 124.8 122.5R 117.2T 110.3T
DEP CON 119.5
TFC INFO Ctc APP CON 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4007.
Rnwys 13, 31 Ceil 500 Vsby 1 1/2 mi Min Alt 4107
ILS 110.3 I-AMA Apch Brg 035°

TIN
ELLER MUNI *IFR* 2 NE (175° 5.1 NM from AUS VOR)
531 H73/12R-30L (5) (S-30, T-40, TT-) BL4, 6, 8 S5
F5, JP5 U2 RVV: Rnwy 30L FSS: AUSTIN on Fld
REMARKS: Rgt rnwys 12R, 16R, 30R & 21. Rnwy 34L apch restricted by trees-glide angle 0 to 1. Rnwy 12R threshold displaced 900 ft SE. 6400 ft avbl lndg rnwy 12R. Rnwy 16R threshold displaced 600 ft S. 4406 ft avbl lndg rnwy 16R.
AUSTIN TOWER 118.3 126.2 122.5R 109.5T
AUSTIN GND CON 121.9
RADAR SERVICES: (BCN)
AUSTIN APP CON 124.9 125.1 122.7R 112.5T
AUSTIN DEP CON 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
ILS 109.5 I-AUS Apch Brg 305°

JMONT
FFERSON CO *IFR* 9 SE (056° 4.6 NM from BPT VOR)
16 H57/11-29 (3) (S-50, T-65, TT-) BL4, 6, 8A, 9 S3
F4, JP1 U2 RVV: Rnwy 11 REIL: Rnwy 16
FSS: BEAUMONT on Fld
TOWER 119.5 122.5R GND CON 121.9
BEAUMONT APP CON 121.3 122.5R 114.9T
ILS 109.5 I-BPT Apch Brg 113°

TEXAS—Continued

BROWNSVILLE
RIO GRANDE VALLEY INTL *IFR* 4 E (242° 2.3 NM from BRO VOR) AOE
22 H57/13R-31L (6) (S-35, T-58, TT-108) BL4, 6, 7 S5
F5, JP1, 4 FSS: BROWNSVILLE on Fld
REMARKS: Rnwy 4-22 restricted to 10,000 lbs or less. Rnwy lgts on req after 2400. CTN-constr vic fld. Rnwy 31L apch restricted by brush-glide angle 0 to 1. Rnwy 31R apch restricted by trees-glide angle 0 to 1. Rnwy 35R apch restricted by trees-glide angle 1 to 1.
BROWNSVILLE TOWER 118.1 126.2 122.5R 278T
BROWNSVILLE GND CON 121.9
BROWNSVILLE APP CON 119.5 126.2 118.1 388T
ILS 110.3 I-BRO Apch Brg 173°

COLLEGE STATION
EASTERWOOD FIELD *IFR* 2 SW (098° 2.5 NM from CLL VOR)
319 H51/10-28 (3) (S-30, T-40, TT-) BL4 S3 F4
FSS: COLLEGE STATION on Fld
REMARKS. Services offered daylgt hrs only. Rnwy 28 apch restricted by trees-glide angle 0 to 1.
TOWER[1] 118.5 126.2 122.5R GND CON 121.9
REMARKS: [1]Oper 1200-0400Z dly.

CORPUS CHRISTI INTL *IFR* 5 W (191° 7.9 NM CRP VOR)
43 H56/13-31 (2) (S-76, T-102, TT-162) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 13 FSS: ALICE (LC TU4-5712)
REMARKS: Amber flashing lgt for rgt ptn. US Customs-lndg rts arpt 8 AM to 5 PM Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
TOWER 126.2 122.5R 120.9 118.3 GND CON 121.9
RADAR SERVICES:
APP CON 118.3 123.7 122.5R
DEP CON 125.3
ILS 110.3 I-CRP Apch Brg 127°

DALLAS
ADDISON *IFR* 9 N (ADS VOR on fld)
637 H45/15-33 (2) BL4 S5 F5, JP1 U2
FSS: DALLAS (LC FL 7-2825)
REMARKS: Rnwy 21 apch restricted by poleline-glide angle 3 to 1.
TOWER 121.1 122.7R GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 119.8[2] 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126°

DALLAS
LOVE FIELD *IFR* 5 NW (178° 7.1 NM from ADS VOR)
485 H77/13-31 (2) (S-100, T-150, TT-330) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 U2 VASI: Rnwy 31
RVR: Rnwy 13 FSS: DALLAS on Fld
REMARKS: Rnwy 36 apch restricted by poleline-glide angle 14 to 1. Ctc apch ctl for tfc info. 3500 ft N end rnwy 18 avbl for S lndgs & tkofs. US Customs lndg rts arpt 1230 am - 230 pm Mon-Fri, 1230 am - 430 pm Sat. Req arrival notice be forward customs when filing flt plan in Canada, Mexico or Cuba.
TOWER 126.2 122.5R 118.7 278T

TEXAS–Continued

LOVE FIELD–(Continued)
CLRNC DEL 121.6 GND CON 121.9
RADAR SERVICES:
DALLAS APP CON 125.2 123.7[2] 122.5R 119.8[3] 111.4T 110.3T
DALLAS DEP CON 119.5
TFC INFO Ctc APP CON 25 mi out
PAR Rnwys 13 Ceil 200 Vsby 1/2 mi Min Alt 685
ASR Rnwys 13, 31[1] Ceil 400 Vsby 1 mi Min Alt 885
ILS 110.3 I-DAL Apch Brg 127°
VHF/DF available, contact tower
REMARKS: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi fm apch end of rnwy 31. [2]127°-307° [3]308° - 126°. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas APP CON on 123.7. Acft approaching from N and E side of lclzr crs should ctc Dallas APP CON on 119.8.
VOT: 111.0

DALLAS

RED BIRD *IFR* 6 SW (347° 1.1 NM from DCV RBN)
659 H44/13-31 (2) BL4 S5 F4, JP1 U2
FSS: DALLAS (LC FL 7-2825)
REMARKS: Ctn - birds vcnty of arpt.
TOWER[3] 120.3 122.6R 248T GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126° [3]Oper 120-0400Z.

EL PASO INTL *IFR* 4 NE (257° 3.8 NM from ELP VOR) AOE
3956 H120/4-22 (3) (S-95, T-156, TT-280) BL4, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 22 FSS: EL PASO on Fld
REMARKS: Close to acft in excess of 45,000 lbs. Rnwy 4 threshold displaced 1000 ft NE. 11,000 avbl lndg rnwy 4. Rnwy 17 threshold displaced 395 ft S. 6606 ft avbl lndg rnwy 17.
TOWER 118.3 126.2 122.5R 224T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
DEP CON 119.1
ASR Rnwys 22, 26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS 109.5 I-ELP Apch Brg 218°
REMARKS: VOT: 111.0

FORT WORTH

GREATER SOUTHWEST INTL *IFR* 16 NE (GSW VOR on fld)
568 H84/13-31 (2) (S-120, T-180, TT-400) BL4, 6, 8 S3
F5, JP5 RVR: Rnwy 13 FSS: FORT WORTH (LC MA 4-8444)
REMARKS: Rnwy 17 threshold displaced 500 ft S. 5800 ft avbl lndg & tkof both directions.
SOUTHWEST TOWER 118.9 126.2 122.7R 317T
SOUTHWEST GND CON 121.8
RADAR SERVICES:
FORTH WORTH APP CON 118.1 126.2 122.7R 119.6 109.5T
FORT WORTH DEP CON 123.9 122.7R
TFC INFO Ctc APP CON 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I-GSW Apch Brg 129°
VHF/DF available, contact tower
REMARKS: VOT: 111.8

TEXAS–Continued

FORT WORTH

MEACHAM FIELD *IFR* 5 N (177° 2.1 NM from FTW RBn)
692 H52/17-35 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
F5, JP5 U2 FSS: FORT WORTH on Fl
REMARKS: Rnwy 31 apch restricted by poleline-glide angle 6 to 1.
TOWER[1] 126.2 122.7R 118.3 GND CON 121.9
RADAR SERVICES:
FORT WORTH APP CON 119.6 126.2 122.7R 118.1 109.5T
FORT WORTH DEP CON 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174°
REMARKS: [1]Oper 1300-0500Z.
VOT: 108.2

GREENVILLE

MAJORS FIELD 4 SE (GVT VOR on fld)
544 H80/17-35 (3) (S-80, T-140, TT-220) BL4[1] S5 F4
FSS: DALLA
REMARKS: Ngt lndg not advisible. Rnwy lgts on first 3500 ft rnwy 35 only, remainder lgtd smudge dots prior reg. S 3300' rnwy 17 lgtd.
TOWER[1] 121.3 122.5R
REMARKS: [1]Oper 1330-2200Z excp Sat & Sun.

HOUSTON INTL *IFR* 8 SE (HOU VOR on fld)
50 (H76/3-21 (3) (S-100, T-150, TT-270) BL4, 6, 8A S5
F5, JP4 U2 RVR: Rnwy 3 FSS: HOUSTON on F
REMARKS: US Customs lndg rts arpt 8 AM - 5 PM Mon-Sat, ex Arrival notice be forwarded to US Custom when filing flt ori in Canada, Mexico or Cuba.
TOWER 118.7 126.2 122.5R 119.1 3023.5R 278T
GND CON 121.9
RADAR SERVICES:
APP CON 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.3[3]
DEP CON 123.7 126.2 119.1
TFC INFO Ctc APP CON on 123.7 119.1 or 118.1 25 out.
ASR Rnwys 3, 12, 30 Ceil 400 Vsby 1 mi Min Alt 454 Rnwys 17, 35 Ceil 500 Vsby 1 mi Min Alt 550. Rnwy 21 Ceil 600 Vsby 1 mi Min Alt 650.
ILS 109.9 I-HOU Apch Brg 036°
VHF/DF available, contact tower.
REMARKS: [1]218°-008° [2]009°-217°
VOT: 111.0

JOHNSON CITY MUNI *IFR* 10 W (346° 2 NM from JCY RBn)
1515 H63/17-35 (1) L4, 11 F4 U1 REIL: Rnwy 35
FSS: AUS
TOWER[1] 126.2
RADAR SERVICES:
AUSTIN APP CON 124.9 125.1 122.7R
AUSTIN DEP CON 120.8
REMARKS: [1]Weather and altimeter setting avbl when twr is oper.

LONGVIEW

GREGG COUNTY MUNI *IFR* 6 SE (125° 2.3 NM from GGG VOR)
365 H61/17-35 (3) (S-75, T-100, TT-) BL4, 6, 8 S5
JP1 U2 FSS: GREGG COUNTY
TOWER 119.7 122.5R GND CON
LONGVIEW APP CON 119.7 122.5R
ILS 109.5 I-GGG Apch Brg 126°

TEXAS–Continued

BBOCK MUNI *IFR* 4 NE (111° 4.6 NM from LBB VOR)
3269 H85/17R-35L (4) (S-30, T-40, TT) BL4, 6, 8
SS F5, JP1 U2 FSS: LUBBOCK on Fld
REMARKS: Rnwy 3-21 restricted to acft in excess of 60,000 lbs. Rnwy 12-30 restricted to 80,000 lbs gwt thof wt, except in emerg. Rnwy 35L threshold displaced 900 ft N. 7602 ft avbl lndg rnwy 35L. Rnwy 21 threshold displaced 300 ft SW. 3300 ft avbl lndg rnwy 21.
TOWER 119.9 126.2 122.5R
GND CON 121.9 APP CON 118.1 126.2 122.5R
110.8T 391T DEP CON 118.1
ILS 109.5 I-LBB Apch Brg 169°

NLAND AIR TERMINAL *IFR* 8 SW (181° 3.4 NM from MAF VOR)
2870 H83/10-28 (4) (S-100, T-128, TT-280) BL4, 6, 8 SS
F5, JP2 U2 RVV: Rnwy 10 FSS: MIDLAND on Fld
REMARKS: Rnwy 34L threshold displaced 627 ft N 6902 ft avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698 ft NW. 7602 ft avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303 ft NE. 5197 ft avbl lndg rnwy 4.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 121.1 122.5R 114.8T 110.3T
ILS 110.3 I-MAF Apch Brg 103°
VHF/DF available, contact tower

AINVIEW
IALE COUNTY *IFR* 1 S (023° 6 NM from PVW VOR)
3372 H52/4-22 (2) (S-30, T-40, TT) BL4 SS F4 U2
FSS: LUBBOCK (LC CA 3-2148)
REMARKS: Rnwy 22 apch restricted by hangar-glide angle 2 to 1.
TOWER [1]118.9 122.5R 233T GND CON 121.7
REMARKS: [1]Oper 1200-0400Z.

I ANGELO
ATHIS FIELD *IFR* 7 SW (234° 1.8 NM from SJT VOR)
1915 H59/3-21 (3) (S-35, T-56, TT) BL4, 8 SS F4
U2 RVV: Rnwy 3 FSS: SAN ANGELO on Fld
REMARKS: Rnwy 27 apch restricted by trees-glide angle 0 to 1. Rnwy 9-27 clsd to acft over 25,000 lbs gwt.
TOWER 118.3 122.5R GND CON 121.9
SAN ANGELO APP CON 118.3 122.5R 115.1T 109.7T
ILS 109.7 I-SJT Apch Brg 032°

I ANTONIO INTL *IFR* 7 N (175° 6.3 NM from SAT VOR)
808 H85/12-30 (3) (S-76, T-115, TT-255) BL4, 6, 8A SS
F4, JP1 U2 RVV: Rnwys 3, 12 FSS: SAN ANTONIO on Fld
REMARKS: US customs lndg rts arpt 10 am-8 pm Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
TOWER 118.9 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 120.3 134.1 126.5 126.2R 122.5R 110.9T
109.7T DEP CON 123.9
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys[1] 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi
Min Alt 1208
ILS 110.9 I-ANT Apch Brg 123° BC unusable 109.7
I-SAT Apch Brg 032° VHF/DF available, contact tower.
4ARKS: [1]Rnwy 17, 35 restricted to 2 eng acft and sml
VOT: 110.4

TEXAS–Continued

SAN ANTONIO
STINSON FIELD *IFR* 5 SE (337° 4.5 NM from SSF VOR)
567 H49 9-27 (4) BL4 S5 F4
FSS: SAN ANTONIO (LC TA 6-6323)
REMARKS: All rnwy apchs restricted by trees-glide angle 1 to 1. Rgt tfc rnwys 9, 14, 17, 22. Tfc 800 ft abo terrain 1367 MSL.
TOWER [1]119.5 122.7R GND CON 121.7
RADAR SERVICES:
SAN ANTONIO APP CON 120.3 134.1 126.5 126.2R
122.5R SAN ANTONIO DEP CON 123.9
REMARKS: [1]Oper 1300-0500Z.

TYLER
POUNDS FIELD *IFR* 4 W (127° 4.6 NM from TY LOM)
544 H52/13-31 (3) (S-30, T-40, TT) BL4, 6, 8 S5 F4
U2 FSS: TYLER on Fld
REMARKS: Acft over 50,000 lbs restricted rnwy 4-22. Rnwy 17 threshold displaced 250 ft S. 4803 ft avbl lndg rnwy 17.
TOWER 120.1 122.5R GND CON 121.9
TYLER APP CON 124.1 122.5R 109.9T 320T
ILS 109.9 I-TYR Apch Brg 127°

WACO MUNI *IFR* 5 NW (141° 3 NM from ACT VOR)
515 H57/18-36 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5 U2 RVV: Rnwy 18 FSS: WACO on Fld
REMARKS: Rnwy 18-36 clsd until abt Mar 65.
TOWER 119.9 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.3 134.1 125.3 122.7R 115.3T
DEP CON 125.7
ILS[1] 109.7 I-ACT Apch Brg 185°
REMARKS: [1]Localizer shut down til Mar.

WICHITA FALLS
SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5 N (082° 5.1 NM from SPS VOR)
1015 H131/15-33 (2) (S-65, T-300, TT-530) BL4, 6, 8 S5
F5, JP1, 4, 5 U2 VASI: Rnwys 15 &35 RVV: Rnwys 15, 33 FSS: WICHITA FALLS on Fld
REMARKS: Overhead tfc ptn 2700 ft rectangular tfc ptn 2200 ft MSL. Rgt tfc rnwys 17 & 33.
TOWER 119.1 126.2 122.5R 278T
GND CON 121.9 WICHITA FALLS APP CON 118.2
122.5R 109.7T WICHITA FALLS DEP CON 118.2
ILS 109.7 I-SPS Apch Brg 328°
REMARKS: IFF/SIF svc avbl. Oper 1500-2400Z Mon-Fri excp holi.

UTAH

OGDEN MUNI *IFR* 3 SW (098° 3.7 NM from OGD VOR)
4455 H73/3-21 (3) (S-80, T-105, TT) BL4 S5 F4
U2 FSS: SALT LAKE CITY (LC EX 4-8712)
REMARKS: Rgt tfc rnwy 16, 21 & 35. Arrival acft ctc Hill AFB apch ctl.
TOWER [1]118.7 122.5R GND CON 121.7
RADAR SERVICES:
HILL APP CON 120.2 132.9 124.1 122.5R 121.1
HILL DEP CON 121.1 TFC INFO Ctc APP CON aprx 20 mi out. ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
REMARKS: [1]Oper 1300-0500Z.

UTAH—Continued

SALT LAKE CITY MUNI NO 1 *IFR* 4 W (149° 3.6 NM from SLC VOR)
4226 H100/16R-34L (3) (S-100, T-160, TT-260) BL4, 6, 7, 8 S5 F5, JP1 U2 VASI: Rnwy 16R RVR: Rnwy 34L
FSS: SALT LAKE CITY on Fld
REMARKS: Rnwy 7-25 & 14-32 restricted to acft in excess of 35,000 lbs.
SALT LAKE TOWER 118.3 126.2 122.7R
SALT LAKE GND CON 121.9
RADAR SERVICES: (BCN)
SALT LAKE APP CON 120.9 122.7R 116.8T 109.5T
SALT LAKE DEP CON 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I-SLC Apch Brg 338°
VHF/DF available, contact tower.
REMARKS: VOT: 111.0

VERMONT

BURLINGTON MUNI *IFR* 2 E (033° 4.3 NM from BTV VOR) AOE
335 H78/15-33 (2) (S-75, T-130, TT) BL6, 8A S5
F5, JP1, 4 U2 RVV: Rnwy 15
FSS: MONTPELIER (LC 878-3393)
TOWER 126.2 122.5R 118.3 110.3T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 121.1 133.5 126.2 122.5R 110.3T
DEP CON 119.2
ILS 110.3 I-BTV Apch Brg 146° BC Unusable
VHF/DF available, contact tower
REMARKS: VOT: 109.0

VIRGINIA

LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW (025° 4 NM from LYH VOR)
942 H58/3-21 (3) (S-60, T-80, TT-120) BL6, 8 S5 F4 U2
FSS: ROANOKE (LC 846-3942)
LYNCHBURG TOWER 120.7 122.5R
LYNCHBURG GND CON 121.9
LYNCHBURG APP CON 118.0 122.5R 120.7
ILS 110.1 I-LYH Apch Brg 032°

NEWPORT NEWS
PATRICK HENRY *IFR* 9 NW (065° 2.7 NM from PH LOM)
41 H56/6-24 (2) (S-90, T-130, TT-225) BL4, 6, 8 S5
F4, JP1 U2 FSS: NEWPORT NEWS on Fld
REMARKS: Fee in lieu of fuel for acft over 12,500 lbs.
TOWER 118.7 122.7R 110.1T 317T
GND CON 121.9
RADAR SERVICES: (BCN)
NORFOLK APP CON 125.7
NORFOLK DEP CON 118.9
ILS 110.1 I-PHF Apch Brg 065°

VIRGINIA—Continued

NORFOLK MUNI *IFR* 5 NE (ORF VOR on fld)
26 H50/4-22 (3) (S-70, T-100, TT-180) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 4 FSS: NEWPORT NEWS
REMARKS: Rnwy 13 threshold displaced 219'.
TOWER 121.1 122.5R 109.1T 108.7Tx 281Tx
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.8 DEP CON 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ m Min Alt 526
ILS 109.1 I-ORF Apch Brg 045°
VHF/DF available, contact tower.

RICHMOND
BYRD FIELD *IFR* 6 E (RIC VOR on fld)
167 H80/15-33 (3) (S-100, T-135, TT-240)* BL4, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 6 FSS: RICHMOND on Fld
REMARKS: Fee exec and skeds. *(S-50, T-75, TT-135) ass rnwy 2-20 and 6-24. Rgt tfc patn.
RICHMOND TOWER 119.5 126.2 122.5R 110.3T
CLRNC DEL 121.9 RICHMOND GND CON 121.
RADAR SERVICES:
RICHMOND APP CON 119.0 126.2 122.5R 119.9
RICHMOND DEP CON 118.2
TFC INFO Ctc twr 35 mi out.
ASR Rnwys 2, 6, 15, 20, 24, 33 Ceil 400 Vsby 1 mi Min Alt 567
ILS 110.3 I-RIC Apch Brg 063°
REMARKS: VOT: 110.8

ROANOKE MUNI (WOODRUM FLD) *IFR* 3 NW (ODR VOR on fld)
1174 H54/5-23 (3) (S-60, T-85, TT-140) BL4, 11 S5
F5, JP1 REIL: Rnwy 23 FSS: ROANOKE on Fld
REMARKS: Rnwy 33 threshold displaced 125'.
TOWER 118.3 122.5R 120.2
GND CON 121.9
RADAR SERVICES:
APP CON 126.9 122.5R 120.2 109.0T
DEP CON 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374.

WASHINGTON

EVERETT
PAINE FIELD *IFR* 6 SW (PAE VOR on fld)
603 H90/16-35 (2) (S-50, T-90, TT-220) BL6, 8 S5
F4, JP4 FSS: SEATTLE
REMARKS: Rnwy 11 threshold displaced 1600'.
TOWER 121.3 126.2 122.5R 302 3.5R 278T
RADAR SERVICES:
SEATTLE CENTER APP CON 121.2
ILS 109.3 I-PAE Apch Brg 155°
REMARKS: IFF/SIF svc avbl.

RENTON MUNI Adjt NW (031° 4.8 NM from SEA VOR)
29 H53/15-33 (1) (S-100, T-190, TT-300) BL4 S5
F4, JP4 U2 FSS: SEATTLE (LC CH 3-42
REMARKS: Rnwy 33 threshold displaced 1000'. Rgt tfc rnwy 33.
TOWER [1]118.9 122.7R
GND CON 121.9 SEATTLE DEP CON 119.2
REMARKS: [1]Oper 1500-0700Z.

WASHINGTON–Continued

TTLE
)EING FIELD *IFR* 4 S (290° 2.1 NM from SJ RNG) AOE
17 H100/13-31 (2) (S-120, T-180, TT-400) BL6, 8, 11 S5
FS, JP1 U2 RVV: Rnwy 13 REIL: Rnwy 31
FSS: SEATTLE (DL)
TOWER 126.2 122.5R 118.3 248T
GND CON 121.9
RADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
LS 110.9 I-BFI Apch Brg 128°

:TLE-TACOMA INTL *IFR* 10 S (SEA VOR on fld)
128 H119/16-34 (2) S-45, T-145, TT-300) BL4, 6, 8A S5
FS, JP1, 4 RVV: Rnwy 16 RVR: Rnwy 34
FSS: SEATTLE on Fld
TOWER 119.9 126.2 122.6R 281T
CLRNC DEL 118.0 GND CON 121.7
RADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
LS 110.3 I-SEA Apch Brg 338° BC unusable 111.5
I-SZI Apch Brg 158°
/HF/DF available, contact tower.

:ANE INTL *IFR* 5 S (027° 4.4 NM from GEG VOR)
372 H90/3-21 (2) (S-100, T-200, TT-350) BL4, 6, 8A
:S, JP1, 4 U2 RVV: Rnwy 3 RVR: Rnwy 21
FSS: SPOKANE (LC KE S-2906)
REMARKS: Rgt tfc rnwy 3 and 7.
TOWER 118.3 126.2 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 134.1 126.2x 124.7 123.7 122.5R 119.0
109.9T
DEP CON 124.3
TFC INFO Ctc Spokane APP CON aprx 20 mi out.
-S 109.9 I-GEG Apch Brg 205°
OT: 109.6

AMUNI *IFR* 2 S (244° 3.6 NM from YKM VOR)
082 H55/9-27 (3) (S-50, T-60, TT-100) BL4, 6, 8 S5
5, JP1, 4 U2 FSS: YAKIMA on Fld
OWER 119.1 122.5R 3023.5R 278T
GND CON 121.9
APP CON 120.2 122.5R 119.1 3023.5R
.S 110.1 I-YKM Apch Brg 269°

WEST VIRGINIA

LESTON
AWHA *IFR* 2 NE (084° 8.1 NM from CRW VOR)
32 H56/5-23 (2) (S-150, T-200, TT-400) BL4, 6, 8, 11 S5
4, JP5 U2 RVV: Rnwy 23 REIL: Rnwy 5
FSS: CHARLESTON on Fld
HARLESTON TOWER 120.3 126.2
CHARLESTON GND CON 121.9

WEST VIRGINIA–Continued

KANAWAHA–(Continued)
RADAR SERVICES:
CHARLESTON APP CON 118.8 126.2 110.3T
CHARLESTON DEP CON 124.1
TFC INFO All landing acft ctc APP CON on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I-CRW Apch Brg 230°
VHF/DF available contact Tower.
REMARKS: VOT: 111.0

HUNTINGTON
TRI-STATE (WALKER LONG FLD) 6 SW (114° 4.6 NM from HT LOM)
828 H53/11-29 (1) (S-50, T-75, TT-135) BL6, 8 S5 F4, JP1
U2 FSS: HUNTINGTON on Fld
HUNTINGTON TOWER 120.9 122.5R
HUNTINGTON GND CON 121.9
HUNTINGTON APP CON 118.5 122.5R 109.9T
ILS 109.9 I-HTS Apch Brg 114°

MARTINSBURG MUNI *IFR* 4 S (289° 5.9 NM from MRB VOR)
556 H70/8-26 (2) (S-90, T-120, TT-) BL4, 6, 8 S5 F4
FSS: MARTINSBURG on Fld
TOWER [1]120.5 126.2 122.5R GND CON 121.9
RADAR SERVICES:
DULLES APP CON 125.0 126.1
DULLES DEP CON 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR[3] Rnwy 26 Ceil 400 Vsby 1 Mi Min Alt 956
REMARKS: [1]Oper 1230-2030Z Tue-Sun, 1330-2130Z Wed & Fri, subject to ANG operations. Clsd Mon & hol. IFF/SIF svc avbl. [2]Oper 1330-2130Z Tue & Sat.

WHEELING-OHIO COUNTY *IFR* 7 N (220° 5.8 NM from HLG VOR)
1195 H50/3-21 (3) (S-120, T-170, TT-290) BL4, 6, 8 F4
VASI: Rnwy 21 REIL: Rnwy 21 FSS: WHEELING on Fld
WHEELING TOWER 118.1 122.5R 109.7T
WHEELING GND CON 121.9
ILS 109.7 I-HLG Apch Brg 030°

WISCONSIN

GREEN BAY
AUSTIN STRAUBEL 7 SW (145° 4.6 from GRB VOR)
694 H52/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5 F4 U2
RVV: Rnwy 6 FSS: GREEN BAY on Fld
REMARKS: US Customs lndg rts arpt.
GREEN BAY TOWER 118.7 122.5R 109.5T 278T
GREEN BAY GND CON 121.9
GREEN BAY APP CON 119.4
ILS 109.5 I-GRB Apch Brg 059°

MADISON
TRUAX FIELD 5 NE (TAX VOR on fld)
859 H76/18-36 (4) (S-60, T-80, TT-) BL4, 6, 8 S5 F4, JP4, 5 U2 RVV: Rnwys 18, 36 FSS: LONE ROCK on Fld
REMARKS: Rnwy 8 apch restricted by poleline - glide angle 4 to 1. Rnwy 18 apch restricted by poleline- glide angle 13 to 1. Rnwy 22 apch restricted by poleline-glide angle 14 to 1.

WISCONSIN–*Continued*

TRUAXFIELD–(Continued)
MADISON TOWER 119.3 126.2 115.5T 3023.5R 278T
MADISON GND CON 121.9
MADISON APP CON 120.1 126.2 109.9T 3023.5R 278T
MADISON DEP CON 125.6[1]
ILS 109.9 I-MSN Apch Brg 359°
VHF/DF available contact Tower.
REMARKS: [1]To be 118.8 Jan 11.

MILWAUKEE
GENERAL MITCHELL FLD 5 S (006° 3.6 NM from MK LOM)
702 H99/1-19 (4) (S-200, T-200, TT-400) BL4, 6, 8A S5
F5, JP1 U2 RVR: Rnwy 1 FSS: MILWAUKEE on Fld
REMARKS: Rgt tfc rnwy 1-7. Rnwy 19 threshold displaced 1600 ft S. 8316 avbl lndg rnwy 19. Rnwy 17L-25R clsd to all Jet acft. CTN - const vic rnwy 7R.
MILWAUKEE TOWER 119.1 126.2 124.8 122.7R 278T
CLRNC DEL 120.0 MILWAUKEE GND CON 121.9
RADAR SERVICES: (BCN)
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T 110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6
TFC INFO Call APP CON 15 mi out.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1102.
Rnwys 13, 19 Ceil 500 Vsby 1 mi Min Alt 1202.
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1302
ILS 110.3 I-MKE Apch Brg 006°
VHF/DF available, contact Tower.
REMARKS: [1]Do not dsnd blo 1200 on apch until ctlr adz psg the AC Spark Plug twr.
VOT: 109.0

MILWAUKEE
TIMMERMAN FIELD 5 NW (MWC VOR on fld)
745 H41/15L-33R (2) (Max-15) BL4 S5 F4
FSS: MILWAUKEE (DL)
REMARKS: P-line E, NE.
TOWER [1]120.5 122.5R 345T GND CON 121.7
RADAR SERVICES:
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T 110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.5R 118.6
REMARKS: [1]Oper 1100-0400Z.

OSHKOSH
WINNEBAGO CO 1 SW (OSH VOR on fld)
795 H58/9-27 (4) (S-75, T-100, TT-) BL4 S5 F4 L
FSS: GREEN BAY
REMARKS: Rnwy 27 apch restricted by poleline - glide ang to 1. Rnwy 22 apch rest by poleline- glide angle 6 to 1 18 apch restricted by poleline - glide angle 1 to 1. Rnwy 27 threshold displaced 875 ft W. 5225 ft avbl lndg rnwy 2 Rnwy 36 threshold displaced 890 ft N. 4260 ft avbl lndg 36.
OSHKOSH TOWER [1]120.7 122.5R 395T
OSHKOSH GND CON 121.9 CHICAGO ARTCC
APP CON 119.4
ILS 110.5 I-OSH Apch Brg 088°
REMARKS: [1]Oper 1300-0500Z

WYOMING

CASPER AIR TERMINAL 7 NW (201° 13.2 NM from CPR VOR)
5348 H90/16-34 (4) (S-80, T-146, TT-288) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 7 FSS: CASPER or
REMARKS: 1000 ft overruns on ea end rnwy 3-21 not lgtd
TOWER 126.2 122.5R 118.3 GND CON
APP CON 120.7 126.2 122.5R 118.3 116.2T 11[illegible]
ILS 110.3 I-CPR Apch Brg 074°

CHEYENNE MUNI 1 N (195° 3.7 NM from CYS VOR)
6156 H93/8-26 (3) (S-90, T-121, TT-270) BL4, 6, 8 S5
F5, JP4 RVV: Rnwy 26 FSS: CHEYENNE or
REMARKS: Avoid hospital E. Rnwy 8 threshold displaced ft E. 8897 ft avbl lndg rnwy 8.
TOWER 126.2 122.5R 118.7 113.1T 201T
GND CON 121.9
VFR ADV Ctc APP CON on 119.9 aprx 25 mi out.
APP CON 126.2 122.5R 119.9 118.7 113.1T 32[illegible]
ILS 109.9 I-CYS Apch Brg 261°

ARTCC COMMUNICATIONS FREQUENCIES

ALL—Normal communications between ARTCC controllers and pilots of IFR aircraft, **at all altitudes**, will be conducted via direct controller-to-pilot communication channels using the appropriate ARTCC **SECTOR** discrete frequency. Pilots will be advised of the frequency to be used and when a frequency change is required.

VHF—Communications between ARTCC controllers and pilots of aircraft radio equipped aircraft that do not have in-flight tuning capability will be conducted on the ARTCC **AREA** discrete (CAD) frequency, or by relay through the flight service station (FSS). The VHF CAD frequency is normally available to and shared by all non-radar equipped sectors.

The use of radar in air traffic control requires the capability of instantaneous interference free controller-to-pilot communications since radar separation minima may be used; therefore, radar equipped sectors used to control IFR traffic operating below 24,000 feet are provided discrete frequency assignments with normal 100 kc channel protection in the 118.0–127.0 mc band and VHF CAD frequency communications capability is not provided at these sectors.

Communications with limited equipped aircraft operating at FL 240 and above will be handled by relay through FSS, or as directed by ATC.

EMERGENCY FREQUENCIES—Direct controller-to-pilot communications capability on the emergency frequenices 121.5 243.0 mc is limited to the area (dependent upon the location altitude of the aircraft) within the vicinity of the ARTC Center since these frequencies are installed to Center use at the local ARTC Center transmitting/receiving site only.

MISC—Communication frequency information for use above FL 240 can also be found on the high-altitude charts.

ALBUQUERQUE

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
120.1	120.6	120.7		132.9	[illegible]	[illegible]	134.05	119.7
124.6	124.9	125.2		133.8	134.85	134.95	134.65	
125.7	126.3	126.8		134.75	[illegible]	[illegible]	[illegible]	
				135.8	135.15			

ATLANTA

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
120.0	120.3	120.8		132.75	132.75	133.85	134.9	125.9
123.2	123.8	124.1		133.1	133.35	133.7	134.55	
125.2	125.5	126.4		134.6	135.15	135.75		
127.35	127.55	127.8						
128.3	128.6	128.65						

BOSTON

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
120.0	124.0	124.2		127.8	128.1	132.5	132.65	125.9
125.8	127.0	127.1		132.9	134.3	134.45	134.85	
127.6	127.8	127.9		134.95				
128.2	132.4	132.56						

CHICAGO

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
120.4	120.6	120.8		127.45	127.95	132.15	132.5	124.1
124.0	124.4	124.5		132.75	133.35	133.5	134.95	
125.1	125.2	126.6		134.85	135.55			
126.9	127.0	127.1						
127.6	127.7	128.05						
128.4	128.5	128.65						
132.3	133.9							

CLEVELAND

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.9	119.6	119.8		132.25	132.45	133.25	133.3	126.5
120.3	120.4	120.6		133.95	134.25	134.65		
121.2	121.4	123.9						
124.3	124.4	124.5						
125.0	125.1	125.2						
125.5	125.6	125.7						
126.4	126.8	127.15						
127.45	127.65	127.9						
128.45	128.6	134.3						

DENVER

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
119.8	124.1	125.0	127.6	127.3	127.55	132.2	132.1	126.5
125.8	126.0	127.2	127.8	132.15	132.6	132.85	134.15	
132.2	132.5	132.7	133.0	133.3	133.75	133.85	134.65	
133.4	134.6			135.5	135.15	135.65		

FORT WORTH

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
119.4	120.9	124.4	124.6	132.2	132.35	132.45	132.55	120.9
124.7	124.8	125.0	125.5	132.75	133.5	133.35	133.95	
125.6	126.0	126.6	127.3	133.25	135.4	135.8		
127.7	128.0	128.1	128.3					
128.45	133.1	133.3	133.9					
135.0	135.6							

GREAT FALLS

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
120.4	124.1	125.1	125.5	132.25	132.65	132.95	133.4	123.9
126.5	127.1	127.3	127.8	133.55	134.3	134.55	135.25	
128.8	128.5			343.7	351.9			

INDIANAPOLIS

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.2	123.6	124.2	124.4	132.7	133.05	133.45	133.75	124.9
124.8	126.0	127.0	127.1	134.35	134.75	134.9	134.95	
127.4	127.75	128.3	128.4					
128.55	128.8	132.6	135.1					
135.7	135.8							

JACKSONVILLE

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65	124.7
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.85	
127.2	128.1	128.5	132.3	135.05	135.25	135.55	135.65	
132.5	132.8	133.4	133.5					
134.3	134.7							

ARTCC COMMUNICATIONS FREQUENCIES

KANSAS CITY

Center SECTOR Discrete Frequencies

VHF (Low)				VHF (High)				Center AREA Discrete Frequency
118.8	128.9	119.0	119.2	132.25	132.4	132.65	132.9	123.9
119.4	119.6	119.7	120.2	132.95	133.1	133.15	133.35	
121.0	123.6	123.8	124.2	133.45	133.8	134.3	134.7	
125.2	125.3	125.4	125.9	134.9	135.0	135.4	135.25	
126.4	127.2	127.8	128.0	135.65				
128.1	132.2	132.8						

LOS ANGELES

VHF (Low)				VHF (High)				
119.0	119.8	124.5	125.8	127.9	128.3	128.6	132.15	123.9
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.55	
127.3	127.4	128.2	128.4	134.75	134.95	135.45		
132.3	132.5	132.6	133.4					
133.8	134.2	134.4	134.6					
135.05								

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	123.6	132.35	133.0	133.55	133.6
124.4	124.6	125.4	127.1	134.25	134.45	134.9	135.3
127.2	127.25	127.3	127.4	135.5	135.7		
127.75	128.0	128.05	128.7				
132.1	132.3	132.5	135.45				

MIAMI

VHF (Low)				VHF (High)				
118.9	120.0	120.3	123.6	125.7	127.7	132.7	132.95	120.5
124.1	124.4	124.5	124.7	133.65	133.8	134.35	134.5	
125.4	125.6	125.8	126.0	134.95	135.15	135.5		
126.4	127.0	127.3	128.25					

MINNEAPOLIS

VHF (Low)				VHF (High)				
120.3	120.9	125.5	125.9	132.15	133.4	133.55	132.65	118.9
126.0	126.1	127.2	127.3	133.85	134.25	134.45	134.6	
127.4	127.5	127.8	127.9	134.55	135.45	135.7		
128.2	128.4	132.1	132.6					
134.8								

NEW ORLEANS

VHF (Low)				VHF (High)				
118.9	120.7	123.6	124.0	132.6	132.7	133.65	133.85	125.1
124.1	124.6	125.1	125.8	134.75	135.2			
126.0	126.6	126.8	126.9					
128.1	128.4							

NEW YORK

Center SECTOR Discrete Frequencies

VHF (Low)				VHF (High)			
119.6	119.8	120.0	120.2	132.1	132.3	132.95	[illegible]
123.6	124.1	124.2	124.8	133.9	134.8	135.45	[illegible]
125.1	125.3	125.4	125.5	135.75			
125.6	126.0	126.4	126.6				
126.8	127.95	128.2	128.3				
128.5	128.65	132.6	134.6				
135.1	135.6	135.65	137.65				

OAKLAND

VHF (Low)				VHF (High)			
118.4	120.2	120.4	120.6	124.95	128.15	132.35	[illegible]
121.2	123.8	123.9	124.0	132.8	132.95	133.5	[illegible]
124.2	124.6	125.5	125.9	133.75	134.35	134.7	[illegible]
126.5	126.8	127.2	127.5				
127.7	127.8	128.7					

SALT LAKE CITY

VHF (Low)				VHF (High)			
123.6	124.0	124.4	124.5	132.4	132.5	132.95	[illegible]
126.6	127.0	127.4	128.4	132.75	133.25	133.45	[illegible]
133.1				134.8	134.85	135.7	

SAN ANTONIO

VHF (Low)				VHF (High)			
118.2	119.7	121.0	121.2	132.15	132.8	133.75	[illegible]
124.2	125.4	125.8	125.9	134.35	134.95		
126.4	126.9	126.95	127.2				
127.4	127.8	128.0	128.2				
128.3	128.4	132.9	133.05				
134.7	134.8						

SEATTLE

VHF (Low)				VHF (High)			
120.3	120.9	121.2	124.1	133.0	133.5	133.9	[illegible]
125.1	125.3	125.6	125.8	134.75			
126.0	128.1	132.1	132.6				
134.95							

WASHINGTON

VHF (Low)				VHF (High)			
118.6	119.4	119.6	120.3	128.05	132.55	132.85	[illegible]
121.0	123.9	124.0	124.1	133.15	133.55	133.65	[illegible]
124.7	124.9	125.2	125.8	134.4	135.2		
126.4	127.1	127.6	128.15				
128.6	132.15	132.4	133.25				
135.0	135.4						

Pilot to Forecaster Weather Briefing Service available on 122.6 [illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

Service Stations (FSS) provide information on airport con- ...ic aids and other facilities, and process flight plans. ...oviding Airport Advisory Service (AAS) are indicated by ...AAS following the FSS name. 122.2T is the standard FSS ...frequency for this service.

...ion, they provide an aviation weather briefing service. ...weather briefing service is provided on the telephone ...ted. The telephone area code number is shown in paren- ...ion number given is the preferred telephone number to ob- ...weather information. Automatic answering devices are ...used on listed lines to give general local weather infor- ...ng peak workloads. To avoid getting the recorded general ...nouncement, use the selected telephone number listed.

•–Indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

†–Indicates a restricted number, use for aviation weather information only.

%–call FSS for "one call" FSS WBAS briefing service.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name.

FSS's transmit on navigational aid frequencies which are listed first, followed by the identification of the NAVAID.

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 135.9 and emergency 121.5. These frequencies are available at all stations listed, unless annotated by a diamond (◆), identifying those stations where complete standard FSS communications frequencies are not available. This diamond is then supplemented with those standard FSS communications frequencies not available, listed by a cross-out, i.e., ~~135.9~~. Additional frequencies, e.g., 3023.5R, are listed when available. Frequencies transmit and receive unless annotated by the addition of: R – Receive Only, T – Transmit Only, X – On Request.

ALABAMA

Location and Frequencies		Code Area	Telephone
...E 108.8 329 (ANB)	FSS	(205)	831-2303
...114.4 224 (BHM)	FSS	(205)	595-6151
	WB	(205)	%
	WB	(205)	595-2101•
...6 (DHN)	FSS	(205)	794-6693
	FSS	(205)	536-1254
	WB	(205)	881-2761†
...s) 115.3 248 (MOB)	FSS	(205)	342-1177
	WB	(205)	342-2762†
...Donnelly) 112.1 (MGM)	FSS	(205)	269-4368
	WB	(205)	263-0621†
...ls (AAS) 116.5 (MSL)	FSS	(205)	383-6541
	FSS	(205)	383-6430
...(AAS) 117.8 (TCL)	FSS	(205)	758-3628

ARIZONA

...AS) Bisby-Douglas)
...AS) (Bisby-Douglas) 110.0 (DUG)

...UG)	FSS	(602)	EM 4-5353
	WB	(602)	774-1424
...) Harbor) 115.6 326 (PHX)	FSS	(602)	261-4295
	WB	(602)	BR 5-8501•
	WB	(602)	%
...AS) 114.1 347 (PRC)	FSS	(602)	HI 5-2160
	WB	(602)	445-7221 (0700-1500)
...7.1 338 (TUS)	FSS	(602)	294-1463
	WB	(602)	289-3592
	WB	(602)	%
...8 (YUM)	FSS	(602)	725-2601
	WB	(602)	725-2605 (0430-2030)

ARKANSAS

...(AAS) (Goodwin) 108.2 368 (ELD)	FSS	(501)	UN 3-9313
...le (AAS) (Drake) 116.4 (FYV)	FSS	(501)	HI 2-8277
...110.4 311 (FSM)	FSS	(501)	MI 6-1791
	WB	(501)	MI 6-5731†

ARKANSAS (Con't.)

Location and Frequencies		Code Area	Telephone
Harrison (AAS) 110.8 (HRO)	FSS	(501)	EM 5-3433
Little Rock	WB	(501)	FR 4-1546†
Pine Bluff (AAS) (Grider) 116.0 (PBF)	FSS	(501)	JE 5-0652
Texarkana 116.3 329 (TXK)	FSS	(501)	774-6221
Walnut Ridge (AAS) 114.5 (ARG)	FSS	(501)	TU 6-6671

CALIFORNIA

Arcata (AAS) 233 (CV)	FSS	(707)	TE 9-2071
Bakersfield (Meadows) 115.4 239 (BFL)	FSS	(805)	399-1787
	WB	(805)	%
Bishop			UP 3-3213 (0545-1915)
Blythe (AAS) 117.4 251 (BLH)	FSS	(805)	948-6638
Burbank	WB	(213)	848-1460†
	WB	(213)	762-4111• Via Los Angeles
Crescent City (AAS) (McNamara FLD) 109.0 (CEC)	FSS	(213)	IN 4-2514
Daggett (AAS) 113.2 365 (DAG)	FSS	(714)	CL 4-2223
Fresno (Air Terminal) 112.9 344 (FAT) 3023.5RX	FSS	(209)	251-8260
	FSS	(209)	251-8269 (0500-2200)
Imperial (AAS) 115.9 (IPL)	FSS	(714)	355-1948
Long Beach	WB	(213)	429-3563†
	WB	(213)	DA 3-4626• Via Los Angeles
Los Angeles (International) 113.6 332 (LAX)	FSS	(213)	SP 6-2727
	WB	(213)	670-3692†
	WB	(213)	SP 6-1640•
Marysville (AAS) (Yuba Co.) 305 (MYV)	FSS	(916)	SH 2-1449
Montague (AAS) (Siskiyou Co.) 382 (SIY)	FSS	(213)	459-3003
Mt Shasta	WB	(916)	926-2227 (0730-1600)
Needles (AAS) 115.2 269 (EED)	FSS	(213)	EA 6-3511
Oakland (Metropolitan-International) 116.8 362 (OAK)	FSS	(415)	638-5714
	WB	(415)	%
	WB	(415)	832-5418• (Via San Francisco)
Ontario 117.0 (ONT)	FSS	(415)	YU 4-6631

FSS FREQUENCIES AND TELEPHONE NUMBERS

CALIFORNIA (Con't.)

Location and Frequencies		Code Area	Telephone
Palmdale (USAF Plant #42) 114.5 317 (PMD)	FSS	(805)	947-3502
Paso Robles (AAS) 114.3 (PRB)	FSS	(415)	238-2448
Red Bluff (AAS) (Bidwell) 115.7 338 (RBL)	FSS	(916)	527-0242
	WB	(916)	527-5435†
Sacramento 115.2 (SAC)	FSS	(916)	GA 8-6500
Salinas 117.3 (SNS)	FSS	(408)	422-4723
San Diego (Lindbergh) 117.8 (SAN)	FSS	(714)	296-3181
	WB	(714)	293-5068†
San Francisco	IFSS	(415)	588-2284
	WB	(415)	589-6711*
	WB	(415)	761-2052†
Santa Barbara 114.9 (SBA)	FSS	(415)	967-2305
Santa Catalina Island	WB		Avalon 703
Santa Maria	WB	(805)	WA 5-3525
Stockton 116.0 (SCK)	FSS	(209)	466-3684
	WB	(209)	464-6283†
Thermal (AAS) 116.2 (TRM)	FSS	(209)	EX 9-5155
Ukiah (AAS) 112.3 (UKI)	FSS	(707)	462-6136

COLORADO

Akron (AAS) 114.4 388 (AKO)	FSS	(303)	345-2271
Alamosa	WB	(303)	598-2547
			(0400-2000)
Colorado Springs	WB	(303)	632-0535†
Denver (Stapleton Air Field) 116.3 379 (DEN)	FSS	(303)	297-3277
	WB	(303)	297-3049†
	WB	(303)	388-3653*
Eagle (AAS) (EGE)	FSS	(303)	328-2125
Grand Junction (Walker Field) 112.4 396 (GJT)	FSS	(303)	CH 2-1801
	WB	(303)	243-0914
La Junta (AAS) (LHX)	FSS	(303)	DU 4-4311
Pueblo (Memorial) 116.7 373 (PUB)	FSS	(303)	948-3301
	WB	(303)	948-3376†
Trinidad 329 (TAD)	FSS	(303)	846-2623

CONNECTICUT

Bridgeport	WB	(203)	378-2344
Hartford (Bradley Field)	WB	(203)	247-2855†
New Haven	WB	(203)	469-2141†
			(0630-1700)
Windsor Locks (Bradley Field) (BDL) 3023.5RX	FSS	(203)	NA 3-2416
	WB	(203)	NA 3-5590

DELAWARE

Wilmington	WB	(302)	EA 8-2755†

DISTRICT OF COLUMBIA

Washington (Chantilly, Va) Dulles Intl (27.5¢ toll)	WB	(703)	661-8526†
Washington (National) 111.0 332 (DCA)	FSS	(202)	DI 7-1442
	WB	(202)	DI 7-8016*
	WB	(202)	NA 8-0491

FLORIDA

Apalachicola	WB	(305)	653-3171
Crestview (AAS) 115.9 350 (CEW)	FSS	(305)	MU 2-2795
Daytona Beach 112.6 (DAB)	FSS	(305)	255-4767
	WB	(305)	CL 2-5949

FLORIDA (Con't.)

Location and Frequencies		Code Area	Telephone
FL Myers (AAS) (Page Field) 117.6 341 (FMY)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
		[illegible]	[illegible]
		[illegible]	[illegible]
Gainesville (AAS) 116.2 (GNV)	FSS	[illegible]	[illegible]
Jacksonville (Imeson) 114.5 344 (JAX)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
	WB	[illegible]	[illegible]
Key West (AAS) (International) 115.3 332 (EYW)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Lakeland (J.F.K. Meml)	WB	[illegible]	[illegible]
		[illegible]	[illegible]
		[illegible]	[illegible]
Melbourne (AAS) 109.8 257 (MLB)	FSS	[illegible]	[illegible]
Miami 115.9 365 (MIA)	IFSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Orlando (Herndon) 112.2 (ORL)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Pensacola 326 (PNS)	FSS	[illegible]	[illegible]
St Petersburg via Tampa	WB	[illegible]	[illegible]
Tallahassee 117.5 379 (TLH)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Tampa (Tampa International) 388 (TPS) 3023 5 RX	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Vero Beach (AAS) 117.3 (VRB)	FSS	[illegible]	[illegible]
W Palm Beach (Palm Beach International) 115.5 356 (PBI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]

GEORGIA

Albany (AAS) 112.9 (ABY)	FSS	[illegible]	[illegible]
Alma (AAS) 115.1 (AMG)	FSS	[illegible]	[illegible]
Athens	WB	[illegible]	[illegible]
Atlanta (Fulton Co.) (AAS) 245 (FTY)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Augusta (Bush Fld) 113.9 385 (AGS)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Brunswick (AAS) (Malcom McKinnon) 109.8 (SSI)	FSS	[illegible]	[illegible]
Columbus (Muscogee County) 117.1 335 (CSG)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Macon (Cochran) 114.2 (MCN)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Rome	WB	[illegible]	[illegible]
		[illegible]	[illegible]
			[illegible]
Savannah (Travis) 112.7 (SAV)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Valdosta (AAS) 110.4 (VLD)	FSS	[illegible]	[illegible]

IDAHO

Boise (Air Terminal) 113.3 359 (BOI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Burley (AAS) 114.1 272 (BYI)	FSS	[illegible]	[illegible]
Idaho Falls (Fanning Field) 108.2 350 (IDA)	FSS	[illegible]	[illegible]
Malad City 117.4 332 (MLD)	FSS	[illegible]	[illegible]
Mullan Pass 117.8 411 (MLP)	FSS	[illegible]	[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

IDAHO (Con't.)

Location and Frequencies		Code Area	Telephone
[illegible]	WH	[illegible]	SH 3-[illegible]
			(0600-2200)
[illegible] 257 (Pocatello)	FSS	[illegible]	[illegible]
	WB	[illegible]	233-[illegible]37
[illegible] University of Idaho 117.0 (MOR)	FSS	[illegible]	882-6511

ILLINOIS

[illegible]	WH	(312)	WA 6-[illegible]
	WH	(312)	667-[illegible]*
[illegible] 303*	FSS	(815)	725-3144
[illegible] 124.8 (MLI)	FSS	[illegible]	762-2412
	WH	(309)	762-1776
[illegible] Peoria 115.2 354 (PIA)	FSS	[illegible]	697-4751
	WH	[illegible]	637-4477†
[illegible] 113.1 (RFD)	FSS	(815)	TU 5-[illegible]51
[illegible] Rockford [illegible] 116.6 RFD 301 (RFD)	FSS	(815)	963-[illegible]8
	WH	(815)	9[illegible]-[illegible]6†
			(0615-2115)
[illegible] Springfield 112.7 379 (SPI)	FSS	(217)	544-9[illegible]7
	WB	(217)	5[illegible]-[illegible]12
[illegible] 114.3 (VLA)	FSS	(618)	283-0478

INDIANA

[illegible] Dyess Memorial) 113.3 (EVV) 302.3 (ERX)	FSS	(812)	HA 2-8120
	WB	(812)	HA 5-5549
[illegible] Baer Field) 113.9 251 (FWA)	FSS	(219)	747-3139
	WH	(219)	747-2577†
[illegible] West Cook) 116.3 266 (IND)	FSS	(317)	CH 4-9961
	WH	(312)	CH 4-[illegible]11*
	WH	(317)	CH 4-[illegible]82†
[illegible] Purdue University) 113.7 (LAF)	FSS		RI 3-1602 3
[illegible] St. Joseph Co.) 115.4 (SBN)	FSS	(219)	CE 3-4433
	WB	(219)	234-3937†
[illegible] Huffman) 111.8 245 (Huf)	FSS		C-7704

IOWA

[illegible] AAS) 111.4 (BRL)	FSS	(319)	752-4734
	WB	(319)	754-6742
[illegible]ds 117.6 (CID)	FSS	(319)	364-3041
[illegible]ina Moline Ill.)	WB	(319)	326-2677
[illegible]s 114.1 (DSM)	FSS	(515)	285-5691
[illegible]	WH	(319)	582-0174
[illegible]r 114.9 (MCW)	FSS	(515)	GA 3-7512
[illegible]111.6 (OTM)	FSS	(515)	MU 2-1846
[illegible]116.5 335 (SUX)	FSS	(712)	8-1060
	WB	(712)	2-0244
[illegible]36.2 (ALO)	FSS	(319)	AD 3-5628
	WB	(319)	234-9902

KANSAS

[illegible]	WB	(913)	CH 3-3141
[illegible]9.2 (CNU)	FSS	(316)	HE 1-4450
[illegible] AAS) 108.2 (DDC)	FSS	(316)	HU 3-3341
	WB	(316)	HU 3-3311
[illegible]12.8 (EMP)	FSS	(316)	DI 2-7475
[illegible]y AAS) (New Municipal) 113.3 (GCK)	FSS	(316)	BR 6-[illegible]31
[illegible]AAS) 115.1 (GLD)	FSS	(913)	TW 9-[illegible]54
	WB	(913)	TW 9-23601

KANSAS (Con't.)

Location and Frequencies		Code Area	Telephone
Hill City (AAS) 113.7 (HLC)	FSS	(913)	674-5642
Hutchinson 116.8 (HUT)	FSS	(316)	2-4851
Manhattan (AAS) (Marlk) [illegible]	FSS	(913)	PR 6-9751
Russell 114.5 (RSL)	FSS	(913)	483-2312
Salina 115.3 (SLN)	FSS	(913)	TA 5-5309
Topeka (Phillip Billard) 117.8 (TOP)	FSS	(913)	CE 2-5478
	WB	(913)	CE 4-2592†
Wichita 113.8 332 (ICT)	FSS	(316)	WH 2-7241 2
	WB	(316)	WH 2-3284*
	WB	(316)	WH 3-1063†

KENTUCKY

Bowling Green (Warren County) 117.9 (BWG)	FSS	(502)	VI 3-4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381-8195*
Lexington (Blue Grass) 117.0 (LEX)	FSS	(606)	254-7080
	WB	(606)	255-1774†
London 116.1 263 (LOZ)	FSS	(606)	VO 4-4410
Louisville Bowman 114.6 (LOU)	FSS	(502)	451-5344
	WB	(502)	366-2138†
Paducah (Barkley) 117.3 356 (PUK)	FSS	(502)	442-1551

LOUISIANA

Alexandria 116.1 251 (ALX)	FSS	(318)	445-3663
	WB	(318)	HI 3-7539†
			(0600-2200)
Baton Rouge (Ryan) 116.5 (BTR) 302.3 (RX)	FSS	(504)	EL 5-2763
	WB	(504)	EL 7-9943†
Lafayette 110.8 375 (LFT)	FSS		CE 5-3752
	WB		234-1220†
Lake Charles 113.4 242 (LCH)	FSS	(318)	477-1784
	WB	(318)	477-5227†
Monroe (Selman) 113.7 (MLU)	FSS	(318)	322-3157
New Orleans 113.2 338 (MSY)	FSS	(504)	943-5535
	WB	(504)	523-4311*
	WB	(504)	729-2520†
Shreveport (Greater Shreveport) 117.4 230 (SHV)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141†

MAINE

Augusta (State) 111.4 221 (AUG)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton (Memorial International) 108.2 (HUL)	FSS	(207)	532-2475
Millinocket (AAS) 117.9 344 (MLT)	FSS	(207)	723-8343
Old Town (OLD)	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland (PWM)	FSS	(207)	SP 5-0602
	WB	(207)	775-3071†

MARYLAND

Baltimore	WB	(301)	761-1331†
	WB	(301)	766-0757*
			(0600-2300)
Salisbury (Salisbury-Wicomico) 114.5 (SBY)	FSS	(301)	742-7324

FSS FREQUENCIES AND TELEPHONE NUMBERS

MASSACHUSETTS

Location and Frequencies		Code Area	Telephone
Boston (Logan) 117.7 382 (BOS) 3023.5RX	FSS	(617)	LO 7-0099
	FSS	(617)	LO 7-0015
	WB	(617)	%
	WB	(617)	567-1773* (0600-2300)
Nantucket (AAS) 112.7 (ACK) 3023.5R	FSS	(617)	228-0815
	WB	(617)	228-0971
Worcester (ORH)	FSS	(617)	PL 5-6083
	WB	(617)	798-2124†

MICHIGAN

Alpena	WB	(517)	354-8733†
Battle Creek (Kellogg) 109.4 (BTL)	FSS	(616)	2-7878
Detroit (Metropolitan Wayne) 388 (DTW)	FSS	(313)	PA 2-8790
	WB	(313)	278-7340†
Detroit (Willow Run)	WB	(313)	482-5001
	WB	(313)	CR 4-5310
Flint (Bishop) 111.6 (FNT)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987
Grand Rapids (Kent County) 110.2 (GRR)	FSS	(616)	949-4090
	WB	(616)	949-4251†
Houghton (AAS) (Houghton County) 112.8 227 (CMX)	FSS	(906)	482-0380
Houghton Lake (Roscomman County) 122.8 (HTL)	WB	(517)	366-5392
Jackson (AAS) (Reynolds Mun.) 109.6 (JXN)	FSS	(517)	ST 4-9640
Lansing (Capital City) 110.8 (LAN) 3023.5RX	FSS	(517)	2-9237
	WB	(517)	IV 9-2415†
Marquette 109.0 (MQT)	FSS	(906)	GR 5-4197
	WB	(906)	CA 5-8642† (0515-2100)
Muskegon (Muskegon County) 115.6 (MKG)	FSS	(616)	SW 8-1222
	WB	(616)	SW 8-3048
Pellston (AAS) (Emmet County) 111.8 332 (PLN)	FSS	(616)	LE 9-8401
Saginaw (Tri City) 112.9 212 (MBS)	FSS	(517)	OX 5-6621
Saulte Ste Marie (AAS) 112.2 400 (SSM)	FSS	(906)	ME 2-8271
	WB	(906)	ME 2-7751
Traverse City 112.4 365 (TVC)	FSS	(616)	947-5056

MINNESOTA

Alexandria (AAS) 112.8 (AXN)	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982†
Hibbing (Chisholm-Hibbing) (AAS) 110.8 (HIB)	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis (Wold-Chamberlain) 117.3 266 (MSP)	FSS	(612)	PA 9-9386
	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429†
	WB	(612)	PA 9-9339*
Redwood Falls (AAS) 113.3 (RWF)	FSS	(507)	ME 7-8530
Rochester 112.0 (RST)	FSS	(507)	289-1579
St. Cloud	WB	(612)	289-0026†
St. Paul	WB	(612)	BL 1-3213†
	WB	(612)	PA 9-4429† (0400-2200)

MISSISSIPPI

Greenwood (AAS) 114.7 (GRW)	FSS	(601)	GL 3-2631
Jackson (Thompson Field) 112.6 260 (JAN)	FSS	(601)	939-5212
	WB	(601)	939-5881†

MISSISSIPPI (Con't.)

Location and Frequencies		Code Area	Tel
McComb (AAS) (Pike County) 116.7 (MCB)	FSS	[illegible]	[illegible]
Meridian (AAS) (Key Field) 117.0 356 (MEI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Vicksburg	WB	[illegible]	[illegible]
		[illegible]	
		(0630-1130 Sat. Sun	

MISSOURI

Cape Girardeau (CGI)	FSS	[illegible]	[illegible]
Columbia 111.2 (CBI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Joplin (JLN)	FSS	[illegible]	[illegible]
Kansas City 112.6 359 (MKC)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Kirksville (AAS) 114.6 (IRK)	FSS	[illegible]	[illegible]
St. Joseph (Rosecrans Memorial) 108.2 (STJ)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
St. Louis (Lambert) 117.4 338 (STL)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Springfield 116.9 254 (SGF)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Vichy (AAS) (Rolla National) 117.7 (VIH) 3023.5RX	FSS	[illegible]	[illegible]

MONTANA

Billings (Logan Field) 114.5 400 (BIL)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Bozeman (AAS) (Gallatin Field) 112.2 329 (BZN) 3023.5RX	FSS	[illegible]	[illegible]
Butte (AAS) (Silver Bow) 111.6 (BTM)	FSS	[illegible]	[illegible]
Cut Bank (AAS) 114.4 263 (CTB) 3023.5R	FSS	[illegible]	[illegible]
Dillon (AAS) 113.0 379 (DLN)	FSS	[illegible]	[illegible]
Glasgow	WB	[illegible]	[illegible]
			[illegible]
Great Falls (International) 115.1 371 (GTF) 3023.5RX	FSS	[illegible]	[illegible]
Havre	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Helena (City-County) 117.7 317 (HLN)	FSS	[illegible]	[illegible]
			[illegible]
	WB	[illegible]	[illegible]
Lewistown (AAS) 112.0 353 (LWT)	FSS	[illegible]	[illegible]
Livingston (AAS) (Mession Field) 116.1 224 (LVM)	FSS	[illegible]	[illegible]
Miles City 112.1 320 (MLS)	FSS	[illegible]	[illegible]
Missoula (AAS) (Missoula City) 112.8 308 (MSO)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]

NEBRASKA

Chadron (AAS) 113.4 275 (CDR)	FSS	[illegible]	[illegible]
Grand Island 112.0 (GRI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Imperial (AAS) (IML)	FSS	[illegible]	[illegible]
Lincoln (Union) (LKN) 3023.5RX	FSS	[illegible]	[illegible]
	WB	[illegible]	
Norfolk	WB	[illegible]	[illegible]
			[illegible]

NEBRASKA (Con't.)

Location and Frequencies		Code Area	Telephone
...e AAS) (Lee Bird) 117.4 224 (LBF) 3023.5RX....	FSS	(3[illegible]	LE 7-4[illegible]†
	WB	(3[illegible]	537-95[illegible]†
Ecley) 116.3 320 (OMA)	FSS	(4[illegible]	341-6178
	WB	(40[illegible]	341-543[illegible]†
	WB	(40[illegible]	34[illegible]-3[illegible]*
...AAS) 112.6 341 (BFF)	FSS	(3[illegible]	635-[illegible]5
	WB	(3[illegible]	63[illegible]-[illegible]22
[illegible] SNY)	FSS	(3[illegible]	254-3130
e.....	WB	(40[illegible]	98
			(0[illegible]-1300)

NEVADA

4.5 391 (ELKO).....	FSS	(702)	738-6506
	WB	(702)	[illegible]
...Yelland Field) (ELY)	FSS	(702)	264-7045
	WB	(702)	264-2403
...McCarran) 116.9 206 (LAS)	FSS	(702)	736-1573 4
	WB	(702)	[illegible]
... AAS) (Derby Field) 116.5 209 (LOL)	FSS	(702)	CR 3-2448
...3 354 (RNO)	FSS	(702)	FA 3-4444
	WB	(702)	329-[illegible]†
...ye County) 117.2 221 (TPH)	FSS	(702)	482-6421
...a	WB	(702)	623-2203

NEW HAMPSHIRE

...39 (CON)	FSS	(603)	224-7474
	WB	(603)	225-5191
			(0600-1900)
...Regional) 111.6 (LEB).....	FSS	(603)	298-8360

NEW JERSEY

...y	WB	(609)	641-4327†
...115.8 363 (MIV).....	FSS	(609)	825-1173
.....	WB	(201)	MA 4-8118
			MA 4-7272*
			(Via New York)
...TEB).....	FSS	(201)	AT 8-9092

NEW MEXICO

...ue 113.2 230 (ABQ).....	FSS	(505)	CH 3-7832
	WB	(505)	242-[illegible]*
	WB	(505)	CH 3-7832
...AAS) 116.3 (CNM)	FSS	(505)	TU 5-2042
.....	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)
...AS) 108.6 (DMN).....	FSS	(505)	546-2726
...n (AAS) 115.3 (FMN)	FSS	(505)	DA 5-9271
...AS) 116.5 (GNT)	FSS	(505)	AT 7-3011
...a County) 111.0 (HOB).....	FSS	(505)	EX 3-3222
...s (AAS) 117.3 (LVS).....	FSS	(505)	GA 5-7411
.....	WB	(505)	445-3891
			(0545-1225)
...AAS) 116.1 305 (ROW).....	FSS	(505)	622-6780
	WB	(505)	622-6780
			(0430-1230)
...116.6 (SAF)	FSS	(505)	YU 3-6581

NEW MEXICO (Con't.)

Location and Frequencies		Code Area	Telephone
Silver City	WB	(505)	538-9023
			(0530-2000 Mon-Fri)
			(0530-1330 Sat)
Truth or Consequences (AAS) 112.7 (TCS)	FSS	(505)	894-3277
Tucumcari (AAS) 113.6 (TCC)	FSS	(505)	461-2900
Zuni 113.4 (ZUN).....	FSS	(505)	782-3770

NEW YORK

Albany (Albany County) 116.9 (ALB)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173
Binghamton (Broome County) 114.1 317 (BGM)	FSS		RA 9-6145
	WB	(607)	797-0784†
Buffalo (Greater Buffalo) 116.5 260 (BUF)	FSS	(716)	NF 2-6083
	WB	(716)	632-5042*
	WB	(716)	632-6952†
Elmira (Chemung County) 113.7 375 (ELM)	FSS	(716)	RE 9-2471
Glens Falls (AAS) (Warren County) 110.2 (GFL)	FSS	(518)	RX 3-2593
Islip (MacArthur Fld)	FSS	(914)	SC 3-4330
	WB	(212)	995-8659
	WB	(516)	JU 8-1060-1
	WB		OL 6-7474*
Massena (AAS) 114.1 (MSS)	FSS	(716)	RO 9-2033
New York (John F. Kennedy Intl)	FSS	(212)	995-8659
	WB	(212)	995-9151†
New York (LaGuardia)	WB	(212)	NE 9-2118†
Poughkeepsie (Dutchess County) 112.2 (POU).....	FSS	(716)	GL 2-0650
Rochester (Monroe County) 110.0 (ROC)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391†
Syracuse (Hancock) 117.0 350 (SYR).....	FSS	(315)	GL 4-2479
	WB	(315)	455-5031†
Utica (Oneida) 113.9 275 (UCA).....	FSS	(315)	RE 6-9023
Watertown (AAS) 109.8 (ART) 3023.5RX.....	FSS	(315)	NE 9-3321

NORTH CAROLINA

Asheville 112.2 (AVL).....	FSS	(704)	684-4401
	WB	(704)	648-6096
Cape Hatteras	WB	(919)	995-2321
Charlotte.....	WB	(704)	399-1019†
Durham	WB	(919)	596-2326
Elizabeth City (Coast Guard Air Station) 109.4 (ECG).....	FSS	(919)	338-3808
Fayetteville (Grannis Field) 106.8 (FAY)	FSS	(919)	HE 3-3468
Greensboro.....	WB	(919)	299-9499†
Hickory (AAS) 110.8 (HKY)	FSS	(704)	DA 7-8281
New Bern (Simmons-Nott) 108.4 379 (EWN) 3023.5RX.....	FSS	(919)	ME 7-2080
Raleigh-Durham 117.2 350 (RDU).....	FSS	(919)	787-4289
	WB	(919)	787-4092†
Rocky Mount (AAS) 117.8 (RMT).....	FSS	(919)	446-6637
Wilmington (New Hanover County) 117.0 (ILM).....	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	724-2208†

NORTH DAKOTA

Bismarck 116.5 230 (BIS 3023.5RX	FSS	(701)	CA 3-8790
	WB	(701)	223-0920†
Dickinson (AAS) 112.9 308 (DIK)	FSS	(701)	224-2989
Fargo (Hector) 116.2 365 (FAR).....	FSS	(701)	AD 5-8894
Grand Forks (International) 109.4 (GFK).....	FSS	(701)	772-3291
Jamestown (AAS) 114.5 344 (JMS).....	FSS	(701)	CL 2-4350
Minot (International) 117.1 209 (MOT).....	FSS	(701)	833-8112
Williston.....	WB	(701)	473-3198†
			(0445-2045)

FSS FREQUENCIES AND TELEPHONE NUMBERS

OHIO

Location and Frequencies		Area Code	Telephone
Akron 114.6 362 (ACO)	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246†
Canton	WB	(216)	499-7933†
Cincinnati (Lunken) 112.9 353 (CVG)	FSS	(513)	321-1434
	WB	(513)	381-8195†
	WB	(513)	381-2300*
	WB	(513)	381-6706†
Cleveland (Hopkins) 113.6 344 (CLE)	FSS	(216)	267-3700
	WB	(216)	267-3410*
	WB	(216)	267-0149
Columbus 391 (CMH)	FSS	(614)	237-8478
	WB	(614)	%
Dayton 117.5 (DAY)	FSS	(614)	898-4639
	WB	(614)	898-4620†
			(Vandalia Exchange)
Findlay 108.2 209 (FDY)	FSS	(419)	GA 2-3237
Mansfield 108.8 374 (MFD)	FSS	(614)	524-5323
	WB	(614)	522-7070
			(0600-1800)
Toledo (Express) (TOL)	FSS	(419)	242-4171
	WB	(419)	865-4472†
Youngstown 109.0 (YNG)	FSS	(419)	LI 5-8041
	FSS	(419)	856-4806
	WB	(419)	856-4801†
Zanesville (AAS) 111.4 275 (ZZV)	FSS	(419)	GL 2-8611

OKLAHOMA

Ardmore (AAS) 116.7 400 (ADM)	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage (AAS) 115.6 (GAG)	FSS	(405)	923-2601
Hobart (AAS) 111.8 (HBR)	FSS	(405)	GE 6-4234
McAlester (AAS) 112.0 (MLC)	FSS	(918)	GA 3-4091
Oklahoma City (Will Rogers) 115.0 350 (OKC)	FSS	(405)	SU 9-7452
	WB	(405)	MU 5-4433*
	WB	(405)	MU 5-6350†
Ponca City (AAS) 113.2 368 (PNC)	FSS	(405)	RO 5-5485
Tulsa 114.4 245 (TUL)	FSS	(918)	TE 8-3316
	WB	(918)	TE 5-4775†
			TE 5-2364*

OREGON

Astoria	WB	(503)	861-2722
Baker (AAS) 115.3 221 (BKE)	FSS	(503)	523-2961
Eugene (AAS) (Mahlon-Sweet) 112.9 248 (EUG)	FSS	(503)	DI 3-7738
	WB	(503)	344-0141†
Klamath Falls (Kingsley Field) 115.9 242 (LMT) 3023.5RX	FSS	(503)	TU 4-8223
	WB	(503)	TU 2-5060
			(0800-1600)
Meacham	WB	(503)	Meacham 2
			(0700-1500)
Medford 113.6 263 (MFR)	FSS	(503)	772-6523
	WB	(503)	773-1067
North Bend (AAS) 112.1 (OTH)	FSS	(503)	756-4916
Pendleton 114.7 341 (PDT) 3023.5RX	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland (International) 116.6 332 (PDX)	FSS	(503)	AT 2-7293
	WB	(503)	AT 2-2285*
	WB	(503)	AT 7-1244†
Redmond (AAS) (Roberts Field) 117.6 368 (RDM)	FSS	(503)	548-2522

OREGON (Con't.)

Location and Frequencies		Code Area	Tele
Roseburg	WB	(503	[illegible]
		[illegible]	
Salem	WB	(503	[illegible]
		[illegible]	
The Dalles (AAS) 117.2 230 (DLS)	FSS	[illegible]	[illegible]

PENNSYLVANIA

Allentown (Bethlehem-Easton) 117.5 321 (ABE)	FSS	(215	[illegible]
	WB	(215	[illegible]
Altoona (Blair County) 108.8 (AOO)	FSS	[illegible]	[illegible]
Bradford (Bradford-McKean) 116.6 224 (BFD)	FSS	[illegible]	[illegible]
DuBois 356 (DUJ)	FSS	[illegible]	[illegible]
Erie (Port Erie) 115.7 372 (ERI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Harrisburg (Harrisburg-York State) 112.5 338 (HAR)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
North Philadelphia 112.0 (PNE)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Philipsburg (AAS) (Black Moshannon) 115.5 236 (PSB)	FSS	[illegible]	[illegible]
Pittsburgh (Allegheny) 117.1 254 (AGC)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Reading	WB	[illegible]	[illegible]
Scranton	WB	[illegible]	[illegible]
		[illegible]	
			[illegible]
	WB	[illegible]	[illegible]
Wilkes-Barre (Wilkes-Barre/Scranton) 117.8 (AVP)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Williamsport (Williamsport/Lycoming) 114.4 385 (IPT)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]

RHODE ISLAND

Providence (Green) 115.6 (PVD)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]

SOUTH CAROLINA

Anderson (AAS) 108.6 (AND)	FSS	[illegible]	[illegible]
	FSS	[illegible]	[illegible]
Charleston 113.5 329 (CHS) 3023.5RX	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Columbia 114.7 (CAE)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Florence (AAS) 115.2 (FLO)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Greer	FSS	[illegible]	[illegible]
			[illegible]
		Spartanburg	[illegible]
Greenville	WB	[illegible]	[illegible]
			[illegible]
Myrtle Beach 116.0 (MYR)	FSS	[illegible]	[illegible]
Spartanburg	WB	[illegible]	[illegible]

SOUTH DAKOTA

Location and Frequencies		Code Area	Telephone
:'3 0 329 (ABR)	FSS	(605)	BA 5-5264
	WB	(605)	225-7157*
b Howes) 117.6 391 (HON)	FSS	(605)	EL 7-3606
	WB	(605)	352-2495*
			(0500-2100)
:5 112.5 347 (PIR)	FSS	(605)	224-5894
r 112.3 254 (RAP) 3023 SRX	FSS	(605)	FI 2-2240
	WB	(605)	341-0518
s 115.0 245 (FSD)	FSS	(605)	ED 6-4441
	WB	(605)	338-2332*
AAS) 116.6 (ATY)	FSS	(605)	TU 6-4581

TENNESSEE

e	WB	(615)	323-8242
d	WB	(615)	89.-3747†
AAS) (Crossville-Cumberland) 117.6 (CSV)	FSS	(615)	484-6711
AAS) 116.8 (DYR)	FSS	(901)	AT 5-4842
AAS) (McKeller) 281 (MKL) 3023.5RX	FSS	(901)	7-0611
ity	WB	(615)	323-8242
			(Blountville exchange)
	WB	(615)	323-8242†
McGhee-Tyson) 116.4 257 (TYS)	FSS	(615)	577-0135
	WB	(615)	577-4835†
115.5 371 (MEM)	FSS	(901)	398-9260 9
	WB	(901)	398-2347*
	WB	(901)	398-2672†
Metropolitan) 114.1 304 (BNA)	FSS	(615)	AL 4-6552 3
	WB	(615)	256-0334†
RI)	FSS	(615)	FA 3-7242

TEXAS

13.7 (ABI)	FSS	(915)	OR 4-6915
	WB	(915)	OR 4-8844†
S) 114.5 (ALI)	FSS	(512)	MO 4-4291
Air Terminal) 117.2 251 (AMA)	FSS	(806)	DI 9-1608
	WB	(806)	DI 9-2761
bert Mueller) 112.5 (AUS)	FSS	(512)	GR 8-6695
	WB	(512)	GR 6-8554
Jefferson County) 114.9 (BPT)	FSS	(512)	RA 7-0288
	WB	(512)	RA 2-7011†
e (Rio Grande Valley International)			
288 (BRO)	FSS	(512)	LI 6-6421
	WB	(512)	LI 2-8231†
117.6 (CDS)	FSS	(817)	WE 7-3892
ation (AAS) (Easterwood) 113.3 (CLL)	FSS	(713)	VI 6-8784 5
·sti	WB	(512)	TU 3-3008†
AS) 115.8 215 (COT)	FSS	(512)	TR 9-2417
12.0 (DHT)	FSS	(806)	CH 9-2006
ve Field) 114.6 341 (DAL) 3023.5RX	FSS	(214)	FL 7-2825
	WB	(214)	AN 4-3481*
	WB	(214)	RI 9-3502†
nternational) 114.5 242 (ELP) 3023.5RX	FSS	(915)	PR 8-4447
	WB	(915)	778-4487*
	WB	(915)	772-3208†
(AAS) (Meacham) 365 (FTW)	FSS	(817)	MA 4-8444
	WB	(817)	BU 3-1571*
	WB	(817)	BU 3-3961†

TEXAS (Con't.)

Location and Frequencies		Code Area	Telephone
Galveston (AAS) (Scholes) 112.8 206 (GLS)	FSS	(713)	SH 4-3455
	WB	(713)	SO 2-5870†
			(2130-0530)
	WB	(713)	SH 4-2933†
			(0543-2150)
Gregg County (Longview) 112.4 (GGG)	FSS	(214)	
Houston (International) 115.9 332 (HOU) 3023 SRX	FSS	(713)	MI 5-6693
	WB	(713)	MI 4-1507*
	WB	(713)	OL 4-0178†
Junction (AAS) 116.0 (JCT)	FSS	(713)	HI 6-2561
Laredo	WB	(512)	RA 3-5584†
Lubbock 110.8 391 (LBB)	FSS	(806)	PO 2-5065
	WB	(806)	PO 2-2380†
Lufkin (Angelena County) 112.1 356 (LFK)	FSS	(713)	NE 4-3544
McAllen (AAS) (Miller Field) 109.8 (MFE)	FSS	(713)	MU 6-2878
Midland (Air Terminal) 114.8 (MAF)	FSS	(713)	LO 3-2611
	WB	(713)	LO 3-0850†
Mineral Wells (AAS) 117.7 284 (MWL) 3023.5RX	FSS	(713)	FA 5-5922
Odessa	WB	(915)	LO 3-0850†
			(via Midland)
Palacios (AAS) 117.3 (PSX)	FSS	(713)	824-2218
Port Arthur	WB	(713)	RA 2-7011†
San Angelo (Mathis) 115.1 (SJT)	FSS	(713)	655-5638
	WB	(713)	655-9780†
San Antonio (International) 116.8 254 (SAT)	FSS	(512)	TA 6-6323
	WB	(512)	TA 6-0411†
Tyler (Pounds) 320 (TYR)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	HI 5-1276†
Waco 115.3 (ACT)	FSS	(817)	PL 2-4811
	WB	(817)	PL 4-1582
Wichita Falls 112.7 296 (SPS)	FSS	(817)	322-1302
	WB	(817)	322-2011
Wink 112.1 (INK)	FSS	(915)	LA 7-3351

UTAH

Bryce Canyon 112.8 (BCE)	FSS	(801)	TE 4-5311
Cedar City (AAS) 108.6 (CDC)	FSS	(801)	JU 6-9131
Delta 117.6 212 (DTA)	FSS	(801)	4741
Hanksville (AAS) 115.9 (HVE)	FSS	(801)	Hanksville 8
Milford	WB	(801)	387-2361
			(0900-1700)
Salt Lake City (Municipal #1) 116.8 227 (SLC)	FSS	(801)	524-5183
	WB	(801)	364-5571
	WB	(801)	524-5139†
Wendover	WB	(801)	2731
			(0430-2015)

VERMONT

Burlington	WB	(802)	862-2475
Montpelier (Barre-Montpelier) 108.2 257 (MPV)	FSS	(802)	CA 3-2376

VIRGINIA

Blackstone 326 (BKT)	FSS	(703)	292-3826
Bristol	WB	(703)	323-8242†
			(Tri-City)
Chantilly (Dulles)	WB	(703)	661-8526†
Charlottesville (Charlottesville Albemarle) (CHO)	FSS	(703)	296-3320
Danville 113.1 (DAN)	FSS	(703)	SW 3-1163
Newport News (Patrick Henry) (PHF)	FSS	(703)	877-0200
	FSS	(703)	877-0209

FSS FREQUENCIES AND TELEPHONE NUMBERS

VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Norfolk	WB	(703)	853-3014
Richmond (Byrd Field) 114.1 260 (RIC)	FSS	(703)	RE 7-8103
	WB	(703)	737-0550†
Roanoke (Woodrum) 109.4 371 (ROA)	FSS	(703)	EM 6-0011
	WB	(703)	366-2351†

WASHINGTON

Bellingham 113.0 362 (BLI) 3023.5R	FSS	(206)	734-6400
Ephrata 116.8 269 (EPH)	FSS	(509)	SK 4-2361
Hoquiam (AAS) (Bowerman) 113.1 (HQM)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle (Seattle-Tacoma Int'l.) 114.5 260 (SEA)	FSS	(206)	CH 3-4200
(Boeing)	WB	(206)	PA 5-8044†
(Tacoma)	WB	(206)	CH 3-6308*
(Tacoma)	WB	(206)	CH 2-8060†
Spokane (AAS) 115.5 365 (GEG)	FSS	(509)	KE 5-2906
	WB	(509)	MA 4-5674†
Toledo (AAS) (Toledo-Winlock) 239 (TDO)	FSS	(206)	864-2371
Walla Walla (AAS) (City-County) 111.8 356 (ALW)	FSS	(509)	JA 9-1413
Wenatchee (AAS) (Pangborn) 111.0 (EAT)	FSS	(509)	TU 4-5654
Yakima 116.0 (YKM)	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Beckley	WB	(304)	252-3171†
Bluefield (AAS) (Mercer County) 115.4 (BLF)	FSS	(304)	325-6521
Charleston (Kanawha) 117.4 (CRW)	FSS	(304)	342-1371
	WB	(304)	344-1291†
Elkins (Randolph) 114.5 245 (EKN)	FSS	(304)	636-0818
	WB	(304)	636-1246†
Huntington (Tri-State) 323 (HTS)	FSS	(304)	GL 3-1412
	WB	(304)	453-3674†
Martinsburg (AAS) 113.8 209 (MRB)	FSS	(304)	AM 3-9353
Morgantown (AAS) 111.6 269 (MGW)	FSS	(304)	292-3632

WEST VIRGINIA (Con't.)

Location and Frequencies		Code Area	Te
Parkersburg (Wood County) 114.2 (PKB)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
		[illegible]	[illegible]
		[illegible]	[illegible]
Wheeling (Ohio County) 112.2 (HLG)	FSS	[illegible]	[illegible]

WISCONSIN

Eau Claire (AAS) 112.9 (EAU)	FSS	[illegible]	[illegible]
Green Bay (Austin Straubel) 117.0 (GRB)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
La Crosse (AAS) 108.4 371 (LSE) 3023.5RX	FSS	[illegible]	
	WB	[illegible]	
Lone Rock (AAS) (Tri-County 112.8 (LNR) 3023.5RX	FSS	[illegible]	[illegible]
Madison (Traux) 400 (MSN) 3023.5RX	FSS	[illegible]	
	WB	[illegible]	[illegible]
Milwaukee (General Mitchell) 116.4 242 (MKE)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Wausau (AAS) 111.6 (AUW) 3023.5RX	FSS	[illegible]	[illegible]

WYOMING

Casper (Casper Air Terminal) 116.2 269 (CPR)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Cheyenne 113.1 326 (CYS)	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Lander	WB	[illegible]	[illegible]
Laramie (AAS) (General Brees Field) 117.6 245 (LAR)	FSS	[illegible]	[illegible]
Rawlins (AAS) (RWL)	FSS	[illegible]	[illegible]
Rock Springs (AAS) 114.7 290 (RKS)	FSS	[illegible]	[illegible]
Sheridan (AAS) (Sheridan County) 115.3 239 (SHR)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Worland (AAS) (WRL)	FSS	[illegible]	

AIRMAN'S INFORMATION MANUAL

AIRPORT/FACILITY DIRECTORY

SECTION IV A

EFFECTIVE 0501 Z 4 FEBRUARY 1965

To 0501 Z 4 MARCH 1965

FEDERAL AVIATION AGENCY

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AIRPORT/FACILITY DIRECTORY

ALABAMA

MINGHAM MUNI *IFR* 4 NE (178° 2.6 NM from BHM RBN)
643 H92 S-23 (2) (S-120, T-170, TT-300) BL6, 8 S5
F5, JP1, JP4 U2 RVR: Rnwy 5 FSS: BIRMINGHAM on Fld
REMARKS: Acft arresting barriers on overrun rnwy 23. Rnwy 23 threshold displaced 1761' SW. Rnwy 5 9247' lgtd full length.
TOWER 118.7 126.2 122.5R 114.4T 110.3T
GND CON 121.9
APP CON 119.9 126.2 114.4T 110.3T
RADAR SERVICES:
DEP CON 124.9
TFC INFO Ctc APP CON 25 NM out.
ASR Rnwys 5, 23 Ceil 600 Vsby 1 mi Min Alt 1243. Rnwy 18 Ceil 700 Vsby 1 mi Min Alt 1343. Rnwy 36 Ceil 800' Vsby 1 mi Alt 1443.
ILS 110.3 I-BHM Apch Brg 052 BC unusable
VOT: 112.0

ITSVILLE-MADISON CO. *IFR* 3 S (157° 6.4 NM from HSV VOR)
619 H52 18-36 (2) (S-50, T-85, TT-130) BL4, 6, 8 S5
F4, JP1, JP4 RVV: Rnwy 18 FSS: MUSCLE SHOALS (DL)
TOWER 119.7 122.5R 109.0T GND CON 121.9
APP CON 125.6 122.5R 109.0T
ILS 109.3 I-HSV Apch Brg 178°

BILE
ATES FLD *IFR* 9 W (107° 6.3 NM from MOB VORTAC)
217 H78 14-32 (3) (S-40, T-150, TT-280) BL4, 6, 8A S5
F5 JP1 U2 RVV: Rnwy 14 FSS: MOBILE on Fld
REMARKS: Threshold displaced 1000' NW rnwy 32
TOWER 118.3 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
MOBILE APP CON[1] 118.5 126.2 123.7 122.5R 115.3T 112.8T
MOBILE DEP CON 134.1 125.7
ILS 109.9 I-MOB Apch Brg 139° BC unusable
REMARKS: [1]APP CON unable to provide complete radar tfc advy svc fm BFM VORTAC 090°-110° rad.

TGOMERY
NNELLY FLD *IFR* 6 SW (318° 5.6 NM from MGM VORTAC)
221 H90 9-27 (3) (S-120, T-170, TT-300) BL4, 6, 8 S5
F4 JP1 U2 RVR: Rnwy 9 FSS: MONTGOMERY on Fld
REMARKS: J-Bar rnwy 9-27. Rstd to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel.
TOWER 119.7 126.2 122.5R 109.9T
CLRNC DEL 121.9
GND CON 121.9
RADAR SERVICES: (BCN)
MONTGOMERY APP CON 121.1 126.2 122.7R 1?2.1T
MONTGOMERY DEP CON 125.5 124.0
TFC INFO Ctc Montgomery APP CON on 121.1 (Low) aprx 25 mi out.
ASR Rnwy 9, 27 Ceil 400 Vsby 1 mi Min Alt 621
LS 109.9 I-MGM Apch Brg 093° BC unusable

ARIZONA

PHOENIX
SKY HARBOR MUNI *IFR* 3 E (256° 5.3 NM from PHX VOR)
1122 H103 8R-26L (2) (S-170, T-300, TT-595) BL4, 10 S5
F5 JP1 U2 VASI Rnwy 8R FSS: PHOENIX on Fld
PHOENIX TOWER 118.7 126.2 122.5R 120.9 278T
CLRNC DEL 120.4 PHOENIX GND CON 121.9
PHOENIX APP CON 118.1 126.2 122.5R 115.6T
REMARKS: VOT: 109.0

TUCSON INTL *IFR* 6 S (254° 6.1 NM from TUS VOR) AOE
2630 H120, 12L-30R (3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2 FSS: TUCSON on Fld
REMARKS. 5649 ft avbl lngd rnwy 3, 6000 ft avbl rnwy 21.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.5 134.1 126.2 125.9 125.1 122 5R
DEP CON 125.9 TFC INFO ctc APP CON 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.

YUMA MCAS INTL AOE
213 H133 BL4, 6 (S-131, T-225, TT-410)
TOWER 126.2 121.5 122.5R 119.1

ARKANSAS

FORT SMITH MUNI *IFR* 4 SE (225° 5.2 NM from FSM VOR)
468 80H 7-25 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F-5, JP-1 U2 RVV: Rnwy 25 FSS: FORT SMITH on Fld
TOWER 118.3 126.2 122.5R GND CON 121.9
APP CON 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 253° BC unusable

HOT SPRINGS
MEMORIAL FLD *IFR* 3 SW (HOT VOR on Fld)
535 H50/5-23 (2) (S-30, T-40, TT-) BL4 S5 F4
FSS: PINE BLUFF (LC NA 4-4481)
TOWER 120.3 122.5R 110.0T 248T GND CON 121.7
HOT SPRINGS APP CON 120.3 122.5R 110.0T 248T

LITTLE ROCK
ADAMS FLD *IFR* 2E (314° 3.8 NM from LIT VOR)
257 H70/4-22 (3) (S-90, T-180, TT-) BL4, 6, 8 S5
F4, JP1, JP4 U2 RVV: Rnwy 4
FSS: PINE BLUFF (LC FR 5-2790)
TOWER 118.7 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
LITTLE ROCK APP CON 119.5 126.2 124.2 122.5R 113.9T
LITTLE ROCK DEP CON 118.1
ASR Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS[1] 110.3 I-LIT Apch Brg 040°
REMARKS: ASR Apch not auth rnwy 17 and 14. [1]Jan 20 will be shutdown until Jan 30.

AIRPORT/FACILITY DIRECTORY

CALIFORNIA

BAKERSFIELD
MEADOWS FIELD *IFR* 4 NW (131° 3.4 NM from BFL VOR)
488 H57/12L-30R (2) (S-110, T-170, TT-300) BL4, 6, 8A
S5 F5, JP1 U2 **RVV:** Rnwy 30R
FSS: BAKERSFIELD on Fld
TOWER 118.1 126.2 122.5R 227T
GND CON 121.9 **BAKERSFIELD APP CON** 118.8 126.2 115.4T **BAKERSFIELD DEP CON** 118.8
ILS 109.9 I-BFL Apch Brg 299°

BURBANK
LOCKHEED AIR TERMINAL *IFR* 3 NW (286° 3.3 fm Glendale Rbn.)
775 H69/15-33 (2) (S-80, T-150, TT-280) BL4, 6, 8A S5
F5, JP1, 4 U2 **RVV:** Rnwy 7 **FSS:** LOS ANGELES (DL)
REMARKS: Rnwy 15 displaced threshold 900 ft. S 6060 ft avbl lndg rnwy 15. Rnwy 33 displaced threshold 410 ft S. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
BURBANK TOWER 118.7 126.2 122.7R [2]260T
CLRNC DEL 118.0 **BURBANK GND CON** 121.9
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
TFC INFO Ctc Burbank A/C on 120.9 30 mi out.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS 109.5 I-BUR Apch. Brg 076°
VHF/DF[1] available, contact Tower.
REMARKS: [1]Unusable beyond 30 NM below 13,000' 360°-085°; below 4000' 085°-240°; below 6000' 240°-320°; below 10,000 320°-360°. [2]To be decomsnd
VOT: 110.0

CONCORD
BUCHANAN FIELD 2 NW (011° 17.5 NM from OAK VOR)
19 H50/1-19 (3) (S-60, T-80, TT-130) BL4 S5 F4
FSS: OAKLAND (DL)
TOWER[1] 119.7 122.4R 326T **GND CON** 121.9
REMARKS: [1]Tower operates 1500Z-0700Z

FRESNO AIR TERMINAL *IFR* 5 NE (133° 7.1 NM from FAT VOR
332 H92/11-29 (2) (S-40, T-55, TT-) BL4, 6, 8 S5
F4, JP1, JP4 **RVV:** Rnwys 11, 29 **FSS:** FRESNO on Fld
REMARKS: Rgt tfc rnwy 7 & 11
TOWER 118.7 126.2 122.7R 251T 110.3T **GND CON** 121.9
RADAR SERVICES: (BCN)
APP CON 119.6 126.9 122.5R
DEP CON 126.9
ILS 110.3 I-FAT Apch Brg 288°

FRESNO-CHANDLER *IFR* 2 W (168° 9.2 NM from FAT VOR)
283 H32/11L-29R (1) (Max 15) BL4, 6, 8A S5 F4 U2
FSS: FRESNO (DL)
REMARKS: Arpt clsd to all tfc btn 11 pm to SR. [1]Arpt clsd to acft weighing in excess of 12500 lbs. Rgt tfc rnwy 11L
CHANDLER TOWER [1]121.1 122.5R 278T
CHANDLER GND CON 121.7
RADAR SERVICES: (BCN)
FRESNO APP CON 119.6 126.9 122.5R
FRESNO DEP CON 126.9
REMARKS: [1]Oper 1400-0600Z.

CALIFORNIA–Continued

FULLERTON MUNI *IFR* 3 W (020° 6.5 NM from LGB VORTAC
96 H28/6-24 (1) (Max. 8) BL4, 11 S5 F4 U2
TPA: 24R 1200 REIL rnwy 24 **FSS:** LOS ANGELES [illegible]
REMARKS: Rnwy 6 displaced threshold 437 ft E. 2683 ft [illegible] lndg rnwy 6. Rnwy 24 displaced threshold 263 ft W. 2[illegible] avbl lndg rnwy 24. Rnwy 24 apch restricted by pipeline glide angle 13 to 1. Rgt tfc rnwy 24. Entry alt 120[illegible] MSL.
TOWER 119.1 122.6R **GND CON** 121.7
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2

HAWTHORNE MUNI *IFR* 1 E (083° 4.5 NM from LAX VORTAC
64 H45/7-25 (1) (S-30, T-40, TT-) BL4, 11 S-5 F4 [illegible]
REIL rnwy 25. **FSS:** LOS ANGELES [illegible]
REMARKS: Rnwy 7 displaced threshold 1025 ft E. 3975 ft avbl lndg rnwy 7. Runwy 25 displaced threshold 475 ft E. 4525 ft avbl lndg rnwy 25. Prior apvl rqrd for single eng acft 1000 HP or more. Rnwy 25 apch restricted by pipeline; 20 Angle 12 to 1. Rgt tfc E.
TOWER[1] 121.1 122.5R **GND CON** 121.9
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 124.3[2] 125.2[3]
REMARKS: [1]Oper 1500-0700Z. [2]045°-224°. [3]225°-044°.

HAYWARD AIR TRML *IFR* 2 SW (114° 5.9 NM from OAK VOR
46 H52/10R-28L (2) (S-100, T-90, TT-290) BL4 S5 F4
FSS: OAKLAND (LC [illegible])
REMARKS: Jet acft prohibited excp in emgcy.
TOWER 118.9 126.2 122.5R 212T **GND CON** 121.7
RADAR SERVICES:
OAKLAND APP CON 118.1 126.2 116.8T
OAKLAND DEP CON 124.7 120.9 116.8T

LONG BEACH *IFR* 3 NE (274° 4.4 NM from LGB VOR)
LONG BEACH (Daugherty Fld)
58 H100/12-30 (5) (S-90, T140, TT-240) BL4, 6, 8A [illegible]
S5 F5, JP1, 4 U2 **FSS:** LOS ANGELES [illegible]
REMARKS: Due non-vsby on some portions of arpt ctc twr all itinerant acft ctc Long Beach apch ctl regardless of wea[illegible] at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R, [illegible]
LONG BEACH TOWER 119.5 [2]120.5 [3]126.2 122.4R [illegible]
LONG BEACH GND CON 121.9
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby [illegible]
● Alt 558
ILS 110.3 I-LGB Apch Brg 300°
VHF/DF available, contact Tower.
REMARKS: [2]069°-250° and for rnwys 25L, 34L, 34R, [illegible] [3]251°-070° and for rnwys 25R, 16R, 16L, 07L or 12
VOT: 109.0

AIRPORT/FACILITY DIRECTORY

CALIFORNIA–Continued

ANGELES INTL *IFR* 9 SW (071° 0.6 NM from LAX VOR)
[illegible] H120 7R-25L (4) (S-150, T-200, TT-400) BL4, 6, 8A,
[illegible] 55 F5, JP1, 4 U2 VASI: Rnwy 7R
RVV: Rnwys 6, 24, 7R L RVR: Rnwy 25
FSS: LOS ANGELES on Fld
REMARKS: Rnwy 34 threshold displaced 1679 ft N. Rnwys 25L and 25R thresholds displaced 600 ft W.
TOWER 118.9 125.8 123.7[1] 122.7R
CLRNC DEL 118.6 126.85 121.4 GND CON 121.8
RADAR SERVICES:
APP CON 124.9[1] 119.3[2] 113.6T 109.9T
DEP CON 125.2[1] 124.3[2]
TFC INFO ctc APP CON 30 mi out.
PAR Rnwy 25R Ceil 300 Vsby 3/4 mi Min alt 426 Rnwy 25L Ceil 200 Vsby ½ mi Min alt 326 ASR Rnwys 6, 7R, 24[2], 25L Ceil 500 Vsby 1 mi Min Alt 626
ILS 109.9 I-LAX Apch Brg 248°
VHF DF avail, ctc twr
VOT: 112.0

ANGELES (VAN NUYS)
N NUYS *IFR* 3 NW (BU LOM on fld)
[illegible] H80 16R-34L (2) (S-50, T-70, TT-100) BL4, 11 S-5
F4, JP4, 5 U2 REIL: Rnwy 16 FSS: LOS ANGELES (DL)
REMARKS: Rnwy 16R threshold displaced 1376 ft S. 6624 ft avbl indg rnwy 16R. Rnwy 16L-34R daylgt use only Rnwy 16L threshold displaced 1432 ft S. 2568 ft avbl indg rnwy 16L. Parallel 2000 ft strip bet 16L-34R and 16R-34L clsd except emerg.
TOWER 120.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
ILS 109.5 I-BUR Apch Brg 076°
VOT: 109.0

TEREY PENINSULA *IFR* 3 SE (096° 4.3 NM from MR COM)
[illegible]20 H50 10-28 (2) (S-40, T-70, TT-120) BL4, 6, 8 S5
F5, JP1 U2 FSS: SALINAS (DL)
REMARKS: Rnwy 28 has downgrade 1 ½ percent. Lndg acft non-reversible propes ctn during hours of darkness
MONTEREY TOWER 119.9 122.5R 281T
MONTEREY GND CON 121.9
MONTEREY APP CON 120.8
MONTEREY DEP CON 120.8
ILS 110.1 I-MRY Apch Brg 096°

CALIFORNIA–Continued

OAKLAND
METROPOLITAN-OAKLAND INTL *IFR* 4 S (OAK VOR on field)
6 H100 11-29 (4) (S-100, T-160, TT-290) BL6, 8 S5
F5, TF1, JP4 U2 RVV: Rnwy 27R RVR: Rnwy 29
FSS: OAKLAND on Fld
REMARKS: Due non-vis of some areas ctls twr for instr. Rnwy 33 threshold displaced 2113 ft N. Rgt tfc rnwys 27R, 27L, 33 & 11.
OAKLAND TOWER 118.3 126.2 126.0 116.8T 266T
CLRNC DEL 126.6 121.1
OAKLAND GND CON 121.9 121.6
RADAR SERVICES:
OAKLAND APP CON [1]118.1 116.8T [2]120.9
OAKLAND DEP CON 124.7
TFC INFO Call APP CON 25 mi out.
PAR Rnwy 29 Ceil 200 Vsby ½ mi Min Alt 206
ASR Rnwy 9L, 11, 27R, 29 Ceil 400 Vsby 1 mi Min Alt 406
ILS [1]08.7 I-INB Apch Brg 299° 109.9 I-OAK Apch Brg 275°
VHF DF available, contact Tower.
REMARKS: [1]271-089° [2]090-270°
VOT: 110.2

ONTARIO INTL *IFR* 2 E
952 H100 7-25 (2) (S80, T120, TT220) BL6, 8A S5
F5, JP1, 4 U2 RVV: Rnwy 25 FSS: ONTARIO on Fld
REMARKS: Rnwy 7 threshold displaced 1000 ft E. 1000 ft overrun E end rnwy 7-25.
TOWER 118.5 126.2 122.5R 215T CLRNC DEL 123.6
GND CON 121.9
RADAR SERVICES: (BCN)
MARCH APP CON 120.8 122.5R 111.4T
MARCH DEP CON 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255°

OXNARD
VENTURA COUNTY *IFR* 1 W (261° 5.5 NM from CAV RBN)
43 H59 7-25 (1) (S-100, T-135, TT-) BL4, 11 S5 F4, JP4
REIL rnwy 25. FSS: SANTA BARBARA (DL)
REMARKS: Rnwy 25 Threshold Displaced 1377 ft W. 4570 ft avbl lndg rnwy 25. Rnwy 7 Threshold 750 ft E. 5197 ft avbl lndg rnwy 7.
TOWER 120.7 122.5R GND CON 121.9
APP CON 124.7 122.5R

SACRAMENTO MUNI *IFR* 3 SW (015° 4.4 NM from SAC VOR
21 H60/2-20 (3) (S-90, T-120, TT-180) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 2 FSS: SACRAMENTO on Fld
REMARKS: Rnwy 16 apch restricted by antenna-glide angle 12 to 1.
TOWER 119.5 126.2 122.5R 260T GND CON 121.9
RADAR SERVICES:
APP CON 119.1 [1]134.1 123.6 [2]122.5R
DEP CON 124.5
ILS 110.3 I-SAC Apch Brg 015°
REMARKS: [1]Below 5000'. [2]5000' or above.

AIRPORT/FACILITY DIRECTORY

SAN DIEGO CO-GILLESPIE FIELD 10 NE (065° 13.3 from SAN VOR)
385 H53/9-27 (2) (S-60, T-80, TT) BL4 S5 F4 U2 **FSS:** SAN DIEGO (LC 296-3181)
REMARKS: Rnwy 27 threshold displaced 1300 ft W. 4040 ft avbl lndg rnwy 27. Rnwy 17-35 restricted to acft under 12,500 lbs gwt.
GILLESPIE TOWER[1] 120.7 122.7R 379T
GILLESPIE GND CON 121.7
REMARKS: [1]Tower operates 1400-0600Z

SAN DIEGO INTL-LINDBERGH FLD *IFR* 2 W (LIF VOR on fld)
AOE
15 H81/9-27 (2) (S-200, T-200, TT-400) BL5, 6, 8A, 9, 11 S-5 F5, JP1 U2 **REIL:** Rnwy 27 **FSS:** SAN DIEGO on Fld
REMARKS: Rnwy 27 threshold displaced 600 ft W. 8100 ft avbl lndg rnwy 27. Rnwy 31 apch restricted by poleline-glide angle 5 to 1.
TOWER 118.3 126.2 122.5R 109.6T 245T **GND CON** 121.9
RADAR SERVICES: (BCN)
SAN DIEGO APP CON 119.6 127.7 126.2 125.7[1] 125.3[2] 122.7R 218T
SAN DIEGO DEP CON 125.7[3] 125.3[4]
TFC INFO Contact A/C over Oceanside, Jamul, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I-SAN Apch Brg 091°
REMARKS: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure.
VOT: 109.0

SAN FRANCISCO INTL *IFR* 8 SE (SFO VOR on fld)
10 H95 10-28 (4) (S-200, T-200, TT-400) BL6, 8A, 10, 11, 12 S-5 F5, JP1 U2 **VASI:** Rnwy 19L **RVV:** Rnwys 1, 19 **RVR:** Rnwy 28R **FSS:** OAKLAND (DL)
REMARKS: Ctc twr for preferential rnwy system under VFR conditions. Rnwy 28R displaced threshold 200 ft NW. 9496 ft avbl lndg rnwy 28R. Rnwy 1R displaced threshold 1100 ft NE. 8400 ft avbl lndg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop. Ctc twr for taxy instr.
TOWER 120.5 126.2X 122.7R 121.4
GND CON 121.8
RADAR SERVICES:
APP CON 124.9[1] 126.2X 119.3[2] 111.2T 109.5T
DEP CON 124.4 128.5
PAR Rnwy 28L Ceil 300 Vsby 3/4 mi Min Alt 310.
Rnwy 28R Ceil 200 Vsby 1.2 mi Min Alt 210.
ASR Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 510.
Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 410.
ILS 109.5 I-SFO Apch. Brg 281°
VHF DF available, contact tower.
REMARKS: [1]315°-134°, [2]135°-314°, PAR svc not avbl to rnwy 28L UFN.
VOT: 111.0

SAN JOSE MUNI *IFR* 2 NW (SJC VOR on fld)
56 H78 12R-30L (2) (S-60, T-90, TT-) BL4, 8 S5 F4, JP1 U2 **RVV:** Rnwy 30L **FSS:** OAKLAND D
REMARKS: Rnwy 30L threshold displaced 1475 ft NW. 63[illegible] ft avbl lndg rnwy 30L. Twr unable to see txwy A and NE [illegible] patn.
TOWER 120.7 122.4R 248T **GND CON** 2[illegible]
RADAR SERVICES: (BCN)
MOFFETT APP CON 120.1 123.7 122.4R 110.9T [illegible]
MOFFETT DEP CON 121.3 122.4R 108.2T
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
REMARKS: IFF svc avbl

SANTA ANA-
ORANGE COUNTY *IFR* 4 S (SNA VOR on fld)
54 H49 1L-19R (2) (S-30, T-40, TT) BL4, 6 S-5 F4 U2 **FSS:** LOS ANGELES D
REMARKS: Limited itinerant parking.
TOWER[1] 119.9 122.5R **GND CON** [illegible]
RADAR SERVICES: (BCN)
EL TORO APP CON 121.3 134.1 124.1X 122.5R [illegible]
EL TORO DEP CON 121.3
REMARKS: [1]Operates 0600-2300

SANTA BARBARA MUNI *IFR* 7 W (197° 5.5 NM from SBA VOR
14 H47/7-25 (3) (S-40, T-71, TT-117) BL4, 6, 8 S5 F5, JP5, U2 **RVV:** Rnwy 7
FSS: SANTA BARBARA [illegible]
REMARKS: Apch lgts 2900 ft long. Rnwy 25 overrun unlgtd. Rnwy 25 threshold displaced 296 ft W 4420 ft avbl lndg rnwy 25.
TOWER 119.7 122.7R 110.3T 338T **GND CON** [illegible]
APP CON 125.4
ILS 110.3 I-SBA Apch Brg 073°

SANTA MONICA MUNI *IFR* 3 E (SMO VOR on field)
175 H50 3-21 (1) (S-90, T-120, TT-) BL4 11 S5 [illegible] JPS U2 REIL rnwy 21 **FSS:** LOS ANGELES D
REMARKS: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Txwy unlgtd. Gen [illegible] after free first 6 hrs. Rgt tfc rnwy 3.
TOWER 120.3 122.6R **GND CON** [illegible]
RADAR SERVICES:
LOS ANGELES APP CON 124.9[1] 119.3[2] 113.6T [illegible]
LOS ANGELES DEP CON 124.3[1] 125.2[2]
REMARKS: [1]045°-224° [2]225°-044°
VOT: 110.2

SANTA ROSA
SONOMA COUNTY 6 NW (349° 25.5 NM from PYE VOR
125 H50/1-19 (2) (S-80, T-130, TT-220) BL4 S5 F4 U2 **FSS:** OAKLAND D
TOWER[1] 118.5 122.5R **GND CON** [illegible]
REMARKS: [1]Operates 1400-0600Z

CALIFORNIA–Continued

CKTON METROPOLITAN *IFR* 3 S (304° 4 NM from SCK VOR)
H86 11 L-29R (4) (S-100, T-200, TT-400) BL6 S5
F4, TF1 U2 FSS: STOCKTON on Fld
TOWER 120.3 122.5R 230T GND CON 121.9
RADAR SERVICES:
APP CON 125.1 116.0T 109.1T 230T
LS 109.1 I-SCK Apch Brg 291° BC Unusable

RANCE MUNI *IFR* 3 SW (135° 8.6 NM from LAX VOR)
H50 11L-29R (2) (S-30, T-50, TT-80) BL4 S5 F4
U2 TPA: 29R 800 FSS: LOS ANGELES (DL)
REMARKS: Both ends rnwy 11L-29R displaced thresholds 550 ft. 4450 ft avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter twwy only lgtd 10 pm to 6 am.
TOWER[1] 118.1 122.5R GND CON 121.7
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 125.2[3] 124.3[2]
LONG BEACH DEP CON 127.2
REMARKS: [1]Tower oper 1800Z-S5 Mon-Fri. 1700-S5 Sat, Sun & holidays. [2]045°-224°. [3]225°-044°.

COLORADO

ORADO SPRINGS
TERSON FIELD *IFR* 6 SE (PEF VOR on fld)
H91 17-35 (3) (S-125, T-200, TT-400) BL4, 6, 8 S5
F5 JP1, 4 RVR: Rnwy 35 FSS: DENVER (LC ME4-3127)
TOWER 119.9 126.2 122.5R 215T GND CON 121.7
RADAR SERVICES:
COLORADO SPRINGS APP CON 118.5 126.2 122.5R 109.9T
COLORADO SPRINGS DEP CON 120.2
TFC INFO Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 300 Vsby 3/4 mi Min Alt 6472
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
LS 109.9 I-COS Apch Brg 346°
VHF DF available, contact tower.

ER
APLETON AIRFIELD *IFR* 4 E (213° 8.1 NM from DEN VOR)
H115/17-35 (4) (S-120, T-200, TT-350) BL4, 6, 8, 9, 11
F5, JP1 VASI: Rnwys 8R, 17 RVV: Rnwy 35
RVR: Rnwy 26L REIL: Rnwy 17 FSS: DENVER on Fld
REMARKS: Twr unable to determine whether acft are on correct final apch to rnwys 8L-26R and 8R-26L.
TOWER 118.3 126.2 119.3 122.5R
GND CON 121.9 121.7
RADAR SERVICES:
DENVER APP CON 119.5[1] 126.2 122.5R 120.5[2] 116.3T 110.3T 108.1T
DENVER DEP CON 124.8
TFC INFO Ctc APP CON 20 mi out.
ASR Rnwys 8R, 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
LS 110.3 I-DEN Apch Brg 256° 108.1 I-SPO Apch Brg 349°
VHF DF available contact tower.
REMARKS: [1]270°-089°. [2]090°-269°.
VOT: 111.0

COLORADO–Continued

GRAND JUNCTION
WALKER FIELD *IFR* 3 NE (110° 9.6 NM from GJT RBN)
4857 H54 11-29 (2) (S-60, T-80, TT-120) BL2, 4, 6, 7
S5 F4 JP1 U2 FSS: GRAND JUNCTION on Fld
REMARKS. Rnwy 4-22 restricted to acft over 12,500 lbs.
TOWER 118.1 122.5R GND CON 121.9
GRAND JUNCTION APP CON 119.7 122.5R 112.4T 110.3T
ILS 110.3 I-GJT Apch Brg 110°

PUEBLO MEML *IFR* 5 E (248° 2.4 NM from PUB VOR)
4725 H85 7-25 (3) (S-90, T-129, TT-216) BL4, 6, 8 S5
F5 RVV: Rnwy 7 FSS: PUEBLO on Fld
TOWER 119.1 126.2 122.5R GND CON 121.9
APP CON 120.1 126.2 119.1 116.7T
ILS 109.5 I-PUB Apch Brg 075°

CONNECTICUT

BRIDGEPORT MUNI *IFR* 3 SE (BDR VOR on fld)
9 H47 11-29 (3) (S-35, T-45, TT-) BL4, 6 S5 F5, JP1, 4
U2 FSS: WINDSOR LOCKS (LC ED 5-6097)
REMARKS: Apch to rnwys 16, 29 blkd by trees.
TOWER 120.9 122.5R 108.8T GND CON 121.9
WESTCHESTER APP CON 121.2 122.5R 3023.5RX

EAST HARTFORD
RENTSCHLER FIELD *IFR* 1 E (347° 7 NM from HFD VOR)
45 H58 18-36 (3) (S-46, T-75, TT-130) BL4, 11 S5 F4
REIL: Rnwys 4, 18, 22, 32, 36 FSS: WINDSOR LOCKS (DL)
REMARKS: Clsd to public. US Customs-lndg rts arpt. Rnwy 18 apch restricted by poleline-glide angle 8 to 1. Attended 7am to midnite.
TOWER 119.9 126.2 GND CON 121.9
RADAR SERVICES:
BRADLEY APP CON 119.4 124.6 122.5R
BRADLEY DEP CON 125.35
REMARKS: [1]Twr oper 0200-1800Z

WINDSOR LOCKS
BRADLEY FIELD *IFR* 3 W (058° 4.5 NM from BD LOM)
173 H95, 6-24 (3) (S-100, T-200, TT-400) BL4, 6, 8 S5
F5, JP4, 5 U2 FSS: WINDSOR LOCKS on Fld
REMARKS: Rnwy 6-24 A-Gear both ends.
TOWER 120.3 126.2 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 119.4 124.6 122.5R
DEP CON 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I-BDL Apch Brg 058°
REMARKS: Glide slope rnwy 6 unusable below 373 ft.

AIRPORT/FACILITY DIRECTORY

DELAWARE

WILMINGTON
GREATER WILMINGTON *IFR* 4 S (EWT VOR on fld)
79 H70/1-19 (3) (S-200, T-300, TT-500) BL4, 6, 8 S5
F4, JP1 U2 FSS: MILLVILLE (LC 652-5419)
REMARKS: Ils apch zone rnwy 1 has penetrations in the 50:1 plane. Rnwy 5-23 clsd acft over 12, 500 lbs.
NEW CASTLE TOWER 120.3 122.5R 110.3T
NEW CASTLE GND CON 121.9
NEW CASTLE APP CON 125.0 110.3T
ILS 110.3 I-ILG Apch Brg 014°
VHF/DF available, contact tower

DISTRICT OF COLUMBIA

WASHINGTON
DULLES INTL *IFR* 21 W (186° 7.3 NM from PLV RBN)
313 H115/1L/19R (3) (S-200, T-290, TT-500) BL6, 8A, 10, 14, 15 S5 F5, JP1, 5 U2 VASI: Rnwy 12
RVR: Rnwy 1R FSS: WASHINGTON (DL)
TOWER 119.7 122.7R
CLRNC DEL 127.4 GND CON 121.65 121.9
RADAR SERVICES: (BCN)
APP CON 119.2 126.1
DEP CON 125.55
PAR Rnwy 1R Ceil 200 Vsby 1/2 mi Min Alt 513
ASR Rnwys 1R, 1L 12, 19L, 30 Ceil 400 Vsby 1 mi Min Alt 713
ILS 111.3 I-DLX Apch Brg 186 109.3 I-DIA Apch Brg 006°

WASHINGTON NATIONAL *IFR* 3 S (DCA VOR on fld)
15 H69/18-36 (3) (S-100, T-200, TT-400) BL4, 6, 8A, 10, 11, 14, 15 S5 F5, JP1 U2 VASI: Rwy 15
RVV: Rnwys 18/15 RVR: Rnwy 36
FSS: WASHINGTON on Fld
REMARKS: No acft over 120,000 lbs w/o prior apvl. Very limited parking.
TOWER 119.1[1] 122.5R
CLRNC DEL 127.7 GND CON 121.7
RADAR SERVICES:
APP CON 120.8[2] 134.1[3] 127.0 122.5R 118.3[1] 109.9T
3023.5R 278T
DEP CON 118.1[1] 126.55[2]
TFC INFO Ctc APP CON on 119.3 120.1
PAR Rnwy 36 Ceil 200 Vsby 1/2 mi Min Alt 215
ILS 1099 I-DCA Apch Brg 003°
VHF/DF available, contact tower
REMARKS: [1]West [2]East [3]Andrews Sector. Circling. PAR avbl on 15 min notice durg VFR wx conditions.
VOT: 108.2

FLORIDA

DAYTONA BEACH MUNI *IFR* 3 SW (156° 7.4 NM from DAB VOR)
34 H57/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5
F4, JP1 U2 FSS: ORLANDO (LC255-4767)
TOWER 120.7 126.2 122.5R 353T GND CON 121.9
APP CON 123.9 122.5R 112.6T 109.7T
ILS 109.7 I-DAB Apch Brg 065°

FLORIDA—*Continued*

FT LAUDERDALE-HOLLYWOOD INTL *IFR* 3 SW (FLL VOR on fld) AOE
10 H74/9-27 (3) BL4 S5 F5, JP1 U2
FSS: MIAMI (LC 524-[illegible]
REMARKS: Rnwy 9-27 thresholds displaced 600 ft both ends.
FORT LAUDERDALE TOWER 119.3 122.5R 111.4T
3023.5R 212T
FORT LAUDERDALE GND CON 121.7
RADAR SERVICES: (BCN)
MIAMI APP CON 123.9 119.7
MIAMI DEP CON 123.9 119.7

HOLLYWOOD
NORTH PERRY 5 W (224° 6.2 NM from FLL VOR)
9 H31/4-22 (4) BL4 S5 F4
FSS: MIAMI (LC 524-[illegible]
TOWER[1] 121.3 122.4R
REMARKS: [1]Oper 1200-0200Z daily. Oper by county.

JACKSONVILLE
IMESON *IFR* 5 N (250° 3.5 NM from JAX VOR)
52 H79/5-23 (3) (S-105, T-137, TT-205) BL4, 6, 8A S5
F5, JP4 U2 RVV: Rnwy 5 FSS: JACKSONVILLE (See FSS)
REMARKS: Caution on ILS apchs. Brightly lighted bridge 1 1/4 mi SW of apch end of rnwy 5 could give false impress of being a rnwy dur poor vis conditions. Rnwy 18-36 oper dalgt VFR operns. Rnwy 5 clsd to indgs, first 1000' clsd for tkof. Clsd dalgt hrs on intermittant basis.
JACKSONVILLE TOWER 118.3 126.2 122.5R 110.3T
JACKSONVILLE GND CON 121.9
RADAR SERVICES:
JACKSONVILLE APP CON 119.0 126.2 122.5R 123.3 114.5T 110.3T
JACKSONVILLE DEP CON 124.9 126.2
TFC INFO Ctc APP CON on 119.0 25 mi out
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452
Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS 110.3 I-JAX Apch Brg 045°
VHF/DF available, contact tower
VOT: 111.0

KEY WEST INTL *IFR* 2 E (137° 1.7 NM from EYW VOR) ACE
4 H48, 9-27 (1) (S-30, T-40, TT-) BL4 S3 F4
FSS: KEY WEST (See FSS)
REMARKS: Fee for commercial and hired acft only. Rgt trfc rnwy 9
TOWER[1] 119.5 122.5R
GND CON 121.9 VFR ADV Ctc Key West rdo 0300-1200
NAVY KEY WEST APP CON 118.7 126.2 122.5R
REMARKS: [1]Oper 1100-0300Z

LAKE CITY MUNI 3 E (182° 19NM from TAY VOR)
202 H68/10-28 (5) BL4 F4 UI
FSS: GAINESVILLE
TOWER [1]126.2 122.8R
REMARKS: [1]Oper 1300-2130 Mon-Fri; Controls Military Traffic Only

AIRPORT/FACILITY DIRECTORY

FLORIDA—Continued

BOURNE
HN F KENNEDY MEML *IFR* 2 NW (MLB VOR on Fld)
:: H112 9-27 (3) (S-30, T-40, TT) BL4 S5 F4, JPS
FSS: MELBOURNE on Fld
REMARKS: 9603' rnwy 9-27 available ngts, displaced threshold rnwy 27 1589' W
MELBOURNE TOWER [1]118.2 122.7R
RADAR SERVICES:
PATRICK APP CONN 118.4
PATRICK DEP CON 118.4
REMARKS: [1]Oper 1145-0315Z daily

INTL *IFR* 8 NW (138° 13.2NM from MIA VOR AOE
H135 9L-27R (4) (S-200, T-200 TT-400) BL4, 6, 8A, 10
S5 F5, JP1, 5 VASI: Rnwy 12 RVV: Rnwys 9L, 27L
FSS: MIAMI on Fld
REMARKS: Fee.
TOWER 118.3 126.2 122.4R CLRNC DEL 127.5
GND CON 121.8
RADAR SERVICES: (BCN)
APP CONN 118.1[1] 123.7[2] 122.4R
DEP CON 123.9 119.7
TFC INFO Ctc Twr 20 mi out or remain above 2500'.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409
ILS 110.3 I-MFA Apch Brg 086° 109.5 I-MIA Apch Brg 266°
VHF DF available, contact Tower.
REMARKS: [1]090°-269° [2]270°-089°, 1400' MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended.
VOT 112.0

A
A LOCKA *IFR* 10 NW (107° 9.8 NM from MIA VOR)
H80 9L-27R (5) BL4, 6 S5 F5, JP1
FSS: MIAMI (LC 634-7687)
REMARKS: Displaced thresholds all rnwys except 9L-27R. Birds in vcnty and on rnwys.
TOWER [1]120.7 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
MIAMI APP CON 123.7 118.1
MIAMI DEP CON 123.9 119.7
REMARKS: [1]Oper 1100-0300Z.

M
AMIAMI 8 W (159° 14 NM from MIA VOR)
H38 14-32 (3) BL4 S5 F4 FSS: MIAMI (LC 634-7687)
REMARKS: Rgt tfc rnwys 9, 14.
TOWER 121.1 122.6R GND CON 121.7
RADAR SERVICES:
MIAMI DEP CON 123.9[1] 119.7[2]
REMARKS: [1]270°-089° [2]090°-269°.

FLORIDA—Continued

ORLANDO
HERNDON *IFR* 3 E (ORL VOR on Fld)
113 H60 7-25 (2) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 RVV: Rnwy 7 FSS: ORLANDO on Fld
REMARKS: NW-SE rnwy NW lndg 5178' avbl, SE 5010' avbl.
TOWER 118.7 126.2 122.5R 112.2T 109.9T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
ORLANDO APP CON 119.4 124.8 122.5R 112.2T 109.9T ORLANDO DEP CON 121.1
TFC INFO Ctc APP CONN on 124.8 25 mi out.
ASR Rnwys 7, 13 Ceil 500 vsby 1 mi Min Alt 613. Rnwys 25, 31 Ceil 400 vsby 1 mi Min Alt 513
ILS 109.9 I-ORL Apch Brg 066°

PENSACOLA MUNI *IFR* 3 NE (343° 1.8 NM from PNS RBN
118 H50 16-34 (2) (S-60, T-80, TT) BL4, 6, 8 S3
F4, JP1 U2 RVV: Rnwy 16 FSS: PENSACOLA on Fld
TOWER 119.9 126.2 122.5R 109.5T 326T
GND CON 121.9
RADAR SERVICES:
APP CON 123.9[1] 134.1 122.7R 120.1 119.0[2]
DEP CON 119.0[2] 134.1 123.9[1]
TFC INFO Ctc APP CON on 119.0 for acft Eastbound or arriving fm the East or on 123.9 for acft Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163°
REMARKS: [1]West [2]East

ST AUGUSTINE
FAIRCHILD - ST AUGUSTINE 3 N (118° 32.8 NM from NZC VOR)
10 H50 13-31 (2) S5 F5
FSS: JACKSONVILLE (LC EL5 3601)
REMARKS: Rnwy 2-20 and 6-24 clsd to acft over 12,500 lbs when twr not in opern.
TOWER [1]126.2 123.1T 122.5R 118.3R
REMARKS: [1]Oper 1230-2115Z Mon-Fri

ST PETERSBURG-CLEARWATER INTL *IFR* 8 N (PIE VOR on Fld)
10 H80 17-35 (3) (S-60, T-120, TT-240) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 17 FSS: TAMPA (DL)
REMARKS: Rnwy 4-22 clsd to night ops UFN.
TOWER 118.3 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T TAMPA DEP CON 126.5
ILS 109.1 I-PIE Apch Brg 170°

SARASOTA - BRADENTON *IFR* 3 N (SRQ VOR on FLD
24 H50 13-31 (3) (S-30, T-40, TT) BL4, 6 S5
F5, JP1 U2 FSS: TAMPA (DL)
REMARKS: Rnwy 9-27 and Txwy Btn Rnwys 31 & 32 clsd to acft in excess 12,500 lbs.
TOWER [1]120.1 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T TAMPA DEP CON 126.5
REMARKS: [1]Oper 1100-0300Z.

AIRPORT/FACILITY DIRECTORY

FLORIDA–*Continued*

TALLAHASSEE MUNI *IFR* 4 SW (140° 2.4 NM from TLH RBN
81 H61/18-36 (2) BL4, 6, 8 S5 F4, JP4 U2
RVV: Rnwy 36 FSS: TALLAHASSEE on Fld
TOWER 118.7 126.2 122.5R 117.5T 110.3T
CLRNC DEL 121.9 GND CON 121.9
APP CON 118.1 122.5R 117.5T 110.3T
DEP CON 118.1
ILS 110.3 I-TLH Apch Brg 358°
VOT: 111.0

TAMPA INTL *IFR* 3 W (063° 8.7 NM from PIE VOR AOE
27 H 83/181-36R (3) (S-80 T-120, TT-270) BL4, 6, 8A, 14
S3 F5, JP1, 4, 5 RVR: Rnwy 18L FSS: TAMPA on Fld
REMARKS: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 Lbs Gwt.
TOWER 119.9 126.2 122.5R 110.3T
GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T
DEP CON 126.5
ILS 110.3 I-TPA Apch Brg 181°
VOT: 111.0

WEST PALM BEACH
PALM BEACH INTL *IFR* 3 W (095° 2.8 NM from PBI VOR AOE
19 H80/9-27 (2) (S-95, T-200, TT-350) BL4, 6, 8A S5
F5, JP4 RVV: Rnwy 9 FSS: MIAMI
REMARKS: Rgt tfc rnwys 9 and 13.
TOWER 119.1 126.2 122.7R 115.5T 109.3T 356T 278T
GND CON 121.9
APP CON 118.0 122.7R 115.5T 109.3T 356T
ILS 109.3 I-PBI Apch Brg 093°
VOT: 109.0

GEORGIA

ATLANTA MUNI *IFR* 3 E (016° 8.1 NM from ATL VOR)
1024 H80 9-27 (3) (S-120, T-, TT) BL4, 6,8 S4
F5, JP1 U2 VASI: Rwy 27 RVR: Rwy 9
FSS: ATLANTA (LC 344-1551)
TOWER 119.1 122.7R CLRNC DEL 121.6
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.7[1] 118.1[2] 109.9T 109.3T
TERM CON 119.3 (S of V18N) 119.8 (N of V18N)
DEP CON 125.7
TFC INFO Inbnd acft ctc app con 25 NM out.
PAR Rwy 9 ceiling 200 vsby ½ mi min alt 1224.
ASR Rwys 3, 27, 33 ceiling 400 vsby 1 mi min alt 1424.
Rwys 9, 15 ceiling 500 vsby 1 mi min alt 1524.
ILS 109.9 I-ATL Apch brng 089° BC unusable 109.3
I-AZA Apch brng 329° BC unusable 110.5
I-ALR Apch brng 089°

GEORGIA–*Continued*

ATLANTA
DEKALB-PEACHTREE *IFR* 8 NE (241° 9.7 NM from OCF
1002 H40/16-34 (3) (Max 30) BL4, 6, 8 S5 F4, JP4
FSS: ATLANTA (LC 344-
REMARKS: Ctl twr unable to see first 850' rnwy 9.
PEACHTREE TOWER [1]121.3 122.5R
PEACHTREE GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
REMARKS [1]Oper 1200-0400Z.

ATLANTA
FULTON COUNTY *IFR* 6 W (FTY VOR on Fld)
834 H52/8-26 (2) (Max 22) BL4 S5 F5, JP4
FSS: ATLANTA
TOWER 118.5 122.6R 245T GND CON
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
VHF/DF available, contact Atlanta area radio.

AUGUSTA
BUSH FIELD *IFR* 6 S (128° 6.4 NM from AGS RBN)
145 H80/17-35 (2) (S-90, T-120, TT) BL4, 6, 8 S5
FT, JP1, 4 U2 FSS: AUGUSTA
AUGUSTA TOWER 118.7 126.2 122.5R 110.5T
AUGUSTA GND CON 121.9
AUGUSTA APP CON 125.4 122.5R 113.9T 110.5T
385T
ILS 110.5 I-AGS Apch brng 348° BC unusable

COLUMBUS
MUSCOGEE COUNTY *IFR* 4 NE (147° 6.8 NM from CSG
397 H50/5-23 (2) (S-60, T-80, TT) BL4, 6 S5
F5, JP5 U2 FSS: ATLANTA (LC
REMARKS: Rnwy 12 clsd to ngt lndgs. Rnwy 30 clsd to
tkofs.
COLUMBUS TOWER 120.1 122.5R
COLUMBUS GND CON 121.9
COLUMBUS APP CON 125.3 122.5R 110.3T
ILS 110.3 I-CSG Apch brng 052° BC unusable

MACON MUNI *IFR* 9 S (MCN VOR on Fld)
354 H50/5-23 (2) (S-60, T-, TT) BL4, 6, 8 S3
F5, JP1 U2 FSS: MACON
TOWER 118.3 122.5R 109.5T GND CON 121.7
RADAR SERVICES: (BCN)
APP CONN 119.6 134.1 124.2 122.7R 114.2T
DEP CON 124.8
ASR Rwys 5, 13, 23 ceiling 500 vsby 1 mi min alt 854.
ILS 109.5 I-MCN Apch brng 047° BC unusable
VHF/DF available, contact Macon FSS.

AIRPORT/FACILITY DIRECTORY

GEORGIA—Continued

AH
IS FIELD *IFR* 7 NW (246 4.3 NM from SAV VOR
H72 9-27 (3) (S36, T62, TT106) BL4, 6, 8A, 9 S5
PS RVV: Rwy 9 FSS: SAVANNAH on Fld
ARKS: Rnwy 27 threshold displaced 400'. Rnwy 23
...ced to 3500' for large acft.
ANNAH TOWER 119.1 126.2 122.5R 109.9T
AVANNAH GND CON 121.9
DAR SERVICES: (BCN)
AVANNAH APP CON 125.3 126.2 122.7R 121.1
32.7T 3023.5Rx
AVANNAH DEP CON 125.7
09.9 I-SAV Apch brng 092°
ARKS: VOT: 111.0

IDAHO

IR TERMINAL *IFR* 3 S (BOI VOR on Fld)
8 H74 IDL-28R (2) (S100, T-185, TT-300) BL4, 6, 8
FS, JP1, 4 U2 RVV: Rnwy 10L
FSS: BOISE on Fld
ARKS: Rnwys 28L-10R and 28L-10R subject to closure
...ing periods of const. Rgt tfc rnwys 10R, 28R
ER 118.1 126.2 122.5R GND CON 121.7
PP CON 120.5 126.2 122.5R 118.1 113.3T 109.9T
109.9 I-BOI Apch brng 096°

FALLS
ING FIELD *IFR* 2 NW (IDA VOR on Fld)
9 H75 2-20 (2) (S-30, T-90, TT-150) BL4, 6 S5
JP5 FSS: IDAHO FALLS on Fld
ARKS: Rnwy 20 threshold displaced 930 ft SW. 6600 ft
...vbl lndg rnwy 20. Rnwy 16 threshold displaced 655ft S.
...75 ft avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
ER [1]118.5 122.5R 206T GND CON 121.7
ARKS: [1]Oper 1400-0600Z

ELLO MUNI *IFR* 7 NW 032° 3.1 NM from PIH VOR
8 H82 3-21 (3) (S30, T80, TT130) BL5, 6, 9, 12 S5 F4
RVV: Rwy 21 FSS: POCATELLO on Fld
WER 119.1 122.5R GND CON 121.9
110.3 I-PIH Apch brng 207°

ILLINOIS

CHAMPAIGN
UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4 SSW (CMI VOR on field)
753 H53 13-31 (3) (S75, T100, TT) BL4 S5 F4, JP1
U2 FSS: CHAMPAIGN on Fld
REMARKS: use rnwys - turf usable by permission.
CHAMPAIGN TOWER 120.5 122.5R 3023.5Rx 233T
CHAMPAIGN GND CON 121.9
CHAMPAIGN APP CON 119.8 122.5R 120.5 110.0T
233T
ILS 109.1 I-CMI Apch brng 313°

CHICAGO (West Chicago)
DUPAGE COUNTY *IFR* 3 NW (069° 4.3 NM from DPA VOR)
758 H40 10-28 (3) (Max-15) BL4, 9° S5 F4 U2
FSS: JOLIET (DL)
REMARKS. 'Non-standard, 1000' down cntr-line. Rnwy 5-23 clsd to all twin eng acft in winds blo 15 kts. All txwys lgtd until 10 PM.
TOWER 120.9 122.5R 342T
GND CON 121.7
REMARKS:[1] TWR oper 1200-0400Z.

CHICAGO
MERRILL C MEIGS FIELD 1 E (117° 15.1 NM from ORD VOR
592 H39 18-36 (1) (MAX 15) BL6 F4 JP1 U2
FSS: JOLIET (DL)
REMARKS: U.S. Customs lndgs rts arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1, 500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear alct. (3) 25 knots or more to all acft. Fld clsd daily to all operns btn hrs 2200 and 0600 lcl time due, no safety or svcs facs; no lgtg excpt obstn lgts dur this period. Rgt tfc N.
MEIGS TOWER [1]121.3 127.8 122.5R
GND CON MEIGS GND CON 121.9
VFR ADV Ctc twr on 127.8 at least 10 mi out.
REMARKS: [1]Oper 1200-0400Z.

CHICAGO-MIDWAY *IFR* 9 SW (132° 5 NM from MD LOM) AOE
619 H65/13R-31L (6) (S-130, T-200, TT-400) BL2, 4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 13R FSS: JOLIET (DL)
REMARKS: Customs svc avbl 0800-1700 cst Mon-Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
MIDWAY TOWER 118.7 126.2 123.7 122.7R 109.9T
109.5T MIDWAY GND CON 121.7
RADAR SERVICES:
CHICAGO APP CON 119.5 126.2 124.7 124.2 122.6R
118.4 111.6T 110.1T 109.7T
CHICAGO DEP CON[1] 124.2 119.2
PAR Rnwy 13R Ceiling 300 Vsby ¾ mi Min Alt 919
ASR Rnwys 4L, 4R, 9R, 13L, 13R, 18R, 27L, 31L, 31R, 36L
Ceiling 500 Vsby 1½ mi Min Alt 1119. Rnwys 22L, 22R
Ceiling 600 Vsby 1½ mi Min Alt 1219
ILS 109.9 I-MDW Apch Brng 132° BC unusable 109.5
I-MXT 312°
VHF DF Available, contact Tower.
REMARKS:[1] Midway tower provides RADAR coverage to departure acft in the immediate area of Midway. PAR unusable frm MM to touchdown.
VOT: 111.0

AIRPORT/FACILITY DIRECTORY

ILLINOIS–*Continued*

CHICAGO-O'HARE INTL *IFR* 14 NW (ORD VOR on field)
667 H116/14R-32L (5) (S-120, T-200, TT-375) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 RVV: Rnwys 14L, 32L, 32R/27, 9/4
RVR: Rnwy 14R REIL: Rnwy 4 FSS: JOLIET (DL)
O'HARE TOWER 118.1 126.2 122.6R 120.7 111.6T 110.1T 109.7T
CLRNC DEL 121.8 O'HARE GND CON 121.9
RADAR SERVICES: (BCN)
CHICAGO APP CON 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
CHICAGO DEP CON 125.4 125.0 124.2
TFC INFO all inbnd acft ctc Chicago APP CON on 119.0 from the E, 125.7 from the W.
PAR Rnwys 14R, 27, 32L Ceiling 200 Vsby ½ mi Min Alt 867. Rnwys 4, 14L, 22, 32R Ceiling 300 Vsby ¾ mi Min Alt 967
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceiling 400 Vsby 1 mi Min Alt 1067
ILS 109.7 I-ORD Apch Brng 138°(14R) 110.1 I-OHA Apch Brng 138°(14L) 110.5 Apch Brng 268° 109.1 I-RVG Apch Brng 318°
VHF/DF Available, contact Tower
REMARKS: [1] 180° - 359° - [2]360° - 179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til Radar advises passing twr 926′ MSL 4.2 mi fm end of rnwy.
VOT: 112.0

MOLINE
QUAD CITY *IFR* 3 S (086° 4.4 NM from ML LOM)
590 H55/9-27 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F5, JP4
U2 RVV: Rnwy 9 FSS: BURLINGTON (DL)
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
MOLINE TOWER 118.5[1] 122.5R 110.3T
MOLINE GND CON 121.9
VFR ADV Ctc APP CON on 119.4
MOLINE APP CON 119.4 114.4T 111.2T 110.3T 224T
ILS 110.3 I-MLI Apch Brng 086°
REMARKS: [1]Prim civil local ctl.

PEORIA
GREATER PEORIA *IFR* 4 W (095° 4 NM from PIA VOR)
659 H70/12-30 (4) (S-60, T-80, TT-) BL4, 6, 8 S5 F5, JP1
U2 RVV: Rnwy 31 FSS: JOLIET
REMARKS: Rnwy 18 clsd air carrier ngt lndgs.
PEORIA TOWER 119.1 125.8 122.5R
PEORIA GND CON 121.9 VFR ADV Ctc APP CON
PEORIA APP CON 125.8 122.5R 115.2T 109.9T 3023.5R
ILS 109.9 I-PIA Apch Brng 303°

ROCKFORD
GREATER ROCKFORD *IFR* 4 S (114° 6 NM from RFD VOR)
735 H60/18-36 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F4, JP1
RVV: Rnwy 36 FSS: ROCKFORD on Fld
ROCKFORD TOWER 118.3 122.5R 109.3T 362T
ROCKFORD GND CON 121.9
VFR ADV Ctc APP CON on 124.9
ROCKFORD APP CON 124.9 118.3 122.5R
ILS 109.3 I-RFD Apch Brng 002°

ILLINOIS–*Continued*

SPRINGFIELD
CAPITAL *IFR* 3 NW (216° 3.2 NM from CAP VOR)
593 H70/4-22 (3) (S-75, T-150, TT-) BL4, 6, 8 S5 F4 [illegible]
U2 RVV: Rnwy 4 FSS: VANDALIA [illegible]
TOWER 121.3 122.5R 239T
GND CON 121.9
VFR ADV Ctc APP CON on 118.6 aprx 25 NM out
SPRINGFIELD APP CON 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I-SPI Apch Brng 038°

INDIANA

EVANSVILLE
DRESS MEMORIAL *IFR* 3 N (057° 12.4 NM from EVV VOR
389 H60/3-21 (3) (S-70, T-90, TT-) BL4, 6 S5 F5, JP[illegible]
FSS: EVANSVILLE [illegible]
REMARKS: P-Line apch rnwy 31. Acft not vis on final [illegible] rnwy 9 within 1500' apch end at alt of 100' AGL or below
EVANSVILLE TOWER 118.7 122.5R
EVANSVILLE GND CON 121.9
EVANSVILLE APP CON 119.4 122.5R 118.7 113.3T 109.9T
ILS 109.9 I-EVV Apch Brng 215° BC unusable

FT. WAYNE
BAER FIELD *IFR* 6 SSW (FWA VOR on field)
801 H80/4-22 (3) (S-90, T-120, TT-) BL4, 6, 8 S5 F5 [illegible]
U2 RVV: Rnwy 31 FSS: FORT WAYNE [illegible]
REMARKS: P-Line apch rnwy 31.
FORT WAYNE TOWER 119.1 126.2 122.5R 278T
FORT WAYNE GND CON 121.9
RADAR SERVICES: (BCN)
FORT WAYNE APP CON 125.5 127.2 126.2 122.5R 117.8T 109.9T 251T FORT WAYNE DEP CON [illegible]
TFC INFO Inbnd VHF equipped acft ctc APP CON on [illegible] at least 15 NM out.
ASR Rnwys 27,31 Ceiling 400 Vsby 1 mi Min Alt [illegible] Rnwy 22 Ceiling 500 Vsby 1 mi Min Alt 1301.
ILS 109.9 I-FWA Apch Brng 315°
REMARKS: Do not descend below 1500′ MSL til radar [illegible] passing fix 3 miles fm end of rnwy 22 due to 1155′ MSL [illegible] 3.8 miles NE.
VOT: 111.0

INDIANA—Continued

APOLIS MUNI (Weir Cook) 7 SW (142 6.1 NM from IND
2
H75 13-31 (2) (S-90, T-135, TT-300) BL6, 8A, 10 S-5
P1, 4 U2 VASI Rnwy 22 RVR. Rnwy 4
V Rnwy 31 FSS: INDIANAPOLIS on Fld
ARKS: Fee multi-eng commercial acft. 700' astn NE end
wy 4 - 22 clsd.
ER 120.9 126.2 122.5R 121.3 116.3T 109.3T
LRNC DEL 125.7 GND CON 121.9
AR SERVICES.
PP CON 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2]
118.3T 109.3T DEP CON 121.1 121.3
FC INFO Ctc APP CON on 119.3 118.5 or 118.1
AR Rnwy 4 Ceiling 200 Vsby ½ mi Min Alt 997
SR Rnwys 4, 13, 22, 33 Ceiling 400 Vsby 1 mi Min
Alt 1197
109.3 I-IND Apch Brng 044° 110.5 I-COA Apch
rng 313
F DF available, contact Tower.
ARKS: [1]220°-044° [2]045°-219°
T. 109.0

WARE COUNTY 3 N (065° 14.3 NM from AID RBN)
H51 14-32 (2) (S-70, T-90, TT-150) BL4 S5 F4 U2
FSS: INDIANAPOLIS (DL)
ARKS. Unlgtd voltage twr line in NW apch 3480' of end
-e, 14.
NCIE TOWER[1] 120.1 122.5R
MUNCIE GND CON 121.9
DAR SERVICES.
NDIANAPOLIS CENTER APP CON 124.8
NDIANAPOLIS CENTER DEP CON 124.8
ARKS: [1]Oper 1200-0400Z.

BEND
SEPH COUNTY *IFR* 3 NW (180° 3.7 NM from SBN VOR)
H60 9-27 (4) (S-110, T-145, TT-) BL4, 6, 8 S-4 F5
RVV: Rnwy 27 FSS: SOUTH BEND on Fld
ARKS: P-lines NE, S.
UTH BEND TOWER 118.9 122.5R 115.4T 109.3T
SOUTH BEND GND CON 121.9
SOUTH BEND APP CON [1]121.0 122.5R 115.4T 109.3T
109.3 I-SBN Apch Brng 269°

HAUTE
MAN FIELD *IFR* 5 E (229° 3 NM from HUF VOR)
H90 5-23 (3) (S-80, T-105, TT-) BL 4, 6 S3 F4 U2
FSS: TERRE HAUTE on Fld
EMARKS: 1254' overrun NE end rnwy 5. Rnwy 18-36 clsd to
acft over 25,000 lbs.
WER 118.3 126.2 122.5R
GND CON 121.9 VFR ADV Ctc APP CON
APP CON 123.8 126.2 122.5R 118.3
109.7 I-HUF Apch Brng 045°

IOWA

CEDAR RAPIDS MUNI *IFR* 5 SSW (088° 2.8 NM from CID VOR)
863 H70 8-26 (2) (S-100, T-135, TT-) BL 4, 6, 8 S-5 F5,
TF-1 U2 FSS: CEDAR RAPIDS on Fld
REMARKS Eastern N S taxy 1500 x 75' and sod areas avbl as
rnwy dur strong N S winds.
TOWER 118.7 122.5R 117.6T 109.3T 278T
GND CON 121.9 VFR ADV Ctc APP CON on 119.9
APP CON 119.9 122.5R 118.7 117.6T 109.3T 278T
ILS 109.3 I-CID Apch Brng 085° BC unusable.

DES MOINES MUNI *IFR* 3 SW (349° 5.4 NM from DSM VOR)
957 H90 12-30 (3) (S-90, T-135, TT-300) BL4, 6, 8 S-5
F5, JP4 U2 RVV: Rnwy 30 FSS: DES MOINES on Fld
REMARKS. Rnwy 17-35 restricted to acft not over 25,000 lbs.
TOWER 118.3 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 124.9 122.5R 119.3 114.1T 110.3T 212T
DEP CON 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi Min Alt
1357
ILS 110.3 IDSM Apch Brng 305° BC unusable

SIOUX CITY MUNI *IFR* 6 S (312° 3.6 NM from SUX VOR)
1097 H90 13-31 (3) (Max 2.25) BL4, 6, 8, 11 S-5 F5, JP-1
U2 RVV: Rnwy 31 REIL rnwy 13 FSS: SIOUX CITY on Fld
REMARKS: First 1500' rnwy 22 not vis to tower.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 118.7 126.2 124.6 122.5R 116.5T 109.3T
335T
ILS 109.3 I-SUX Apch Brng 307°
VHF DF available, contact Tower.

WATERLOO MUNI *IFR* 4 NW (ALO VOR on fld)
870 H54 12-30 (3) (S-80, T-105, TT-) BL4, 6, 8 S-5
F4, JP1 U2 RVV: Rnwy 12 FSS: WATERLOO on Fld
TOWER 118.1 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.8
APP CON 125.8 122.5R 109.9T 108.2T
RADAR SERVICES:
ILS 109.9 I-ALO Apch Brng 123°

KANSAS

HUTCHINSON MUNI *IFR* 3 E (032° 5 NM from HUT VOR)
1542 H70 13-31 (3) (S-40, T-55, TT-) BL4, 6,8 S-5 F4
FSS: HUTCHINSON on Fld
REMARKS: Certain rnwys and txwys may be clsd for const.
TOWER 118.5 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.5
APP CON 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brng 128°

AIRPORT/FACILITY DIRECTORY

KANSAS–Continued

KANSAS CITY
FAIRFAX MUNI *IFR* 3 NE (177° 7.5 NM from MKC VOR)
746 H73. 17-35 (4) (S- , T-75, TT-170) BL6 S-5 F-5, JP-1
U2 FSS: KANSAS CITY (LC GRI-4572)
REMARKS: Tfc ptn alt for acft under 12,500 lbs GWT is 600 ft AGL, vsby N and NW greatly reduced.
TOWER 119.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
KANSAS CITY APP CON 126.2 122.7R 121.1[1] 119.5[2]
112.6T 109.9T KANSAS CITY DEP CON 118.1
REMARKS: [1]W Sector [2]E Sector

TOPEKA
PHILIP BILLARD MUNI *IFR* 3 NE (210° 4.9 NM from TOP VOR)
880 H51/13-31 (3) (S-60, T-80, TT-) BL4, 6 S-5 F-5 JP1 U2
FSS: TOPEKA on Fld
TOPEKA TOWER 118.7 126.2 122.5R
TOPEKA GND CON 121.9
RADAR SERVICES: (BCN)
OLATHE APP CON 120.5 122.5R
ILS 109.5 I-TOP Apch Brng 125°

WICHITA
BEECH 5 E (273° 3.5 NM from ICT VOR)
1387 H50/18-36 (3) F4 FSS: WICHITA (DL)
REMARKS: Both apch N - S rnwy restricted by polelines.
TOWER 119.9 126.2 122.5R 3023.5R GND CON 121.9
RADAR SERVICES:
WICHITA APP CON 120.1 134.1 125.7 122.7R 332T
WICHITA DEP CON 124.5
ASR [1]Rnwy 18 Ceiling 700' Vsby day 1 mi Min Alt 2087
REMARKS: [1]NA for over 2 eng acft.

WICHITA MUNI 5 SW (161° 4.3 NM from ICT VOR)
1332 H73/1-19 (2) BL6, 8 S5 F5, JP1 U2
RVV: Rnwy 01 FSS: WICHITA on Fld
REMARKS: Acft carrying hazardous or explosive cargo prohibited.
TOWER 119.5 122.5R 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
WICHITA APP CON 120.1 134.1 125.7 122.7R 113.8T
332T
WICHITA DEP CON 124.5 113.8T
ILS 110.3 I-ICT Apch Brg 010°

KENTUCKY

LEXINGTON
BLUE GRASS FIELD *IFR* 5 W (304° 7.3 NM from LEX VOR)
978 H55 4-22 (3) (S-35, T-45, TT-) BL4, 6, 8 S5 F5, JP-5
U2 RVV: Rnwy 4 FSS: LEXINGTON on Fld
REMARKS: Twr unable to see last 1/2 mi final apch rnwy 26 and on ramp from hangar line SE to txwys A, B and C
LEXINGTON TOWER 121.1 122.5R 117.0 110.1T
LEXINGTON GND CON 121.9
LEXINGTON APP CON 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brng 042°

KENTUCKY–Continued

LOUISVILLE
BOWMAN FIELD *IFR* 5 SE (330° 8.3 NM from LOU VOR
549 H43/6-24 (3) (Max 30) BL4 S-5 F-4, JP-4 U2
FSS: LOUISVILLE [illegible]
TOWER 119.5 126.2 122.5R GND CON [illegible]
RADAR SERVICES:
STANDIFORD APP CON 124.5 126.2 120.5 120.3
STANDIFORD DEP CON 119.0

LOUISVILLE
STANDIFORD FIELD *IFR* 4 S (300° 8.4 NM from LOU VOR
497 H78/1-19 (3) (S-60, T-90, TT-200) BL4, 6, 8 S-4
F5, JP1, 5 U2 RVV: Rnwy 29 RVR: Rnwy 1
FSS: LOUISVILLE
REMARKS: FEE
TOWER 120.3 126.2 122.7R
CLRNC DEL 121.3 GND CON
RADAR SERVICES:
APP CON 124.5 126.2 120.5 120.3 DEP CON
ASR Rnwy 1 Ceiling 400 Vsby 1 mi Min Alt 897. Rnwy 19 Ceiling 500 Vsby 1 mi Min Alt 997. Rnwys 5 24, 29 Ceiling 600 Vsby 1 mi Min Alt 1097
ILS 110.3 I-SDF Apch Brng 010° 109.1 I-LKS Apch Brng 290°
VHF/DF Available, contact Tower
REMARKS: On apch to rnwy 19 maintain at least 1400' MSL within 3 mi of rnwy.
VOT: 111.0

LOUISIANA

BATON ROUGE
RYAN *IFR* 4 N (065° 7.6 NM from BTR VOR)
70 H60/4-22 (3) (S-30, T-40, TT) BL4, 6, 11 S5 F4
JP5 U2 REIL: Rnwy 13 FSS: BATON ROUGE
TOWER [1]118.3 122.5R GND CON 121.9
BATON ROUGE APP CON 119.7 122.5R 116.5
110.3T
ILS 110.3 I-BTR Apch Brg 127°
REMARKS: [1]Intermittent severe interference reported within 5 mi radius.

LAFAYETTE MUNI *IFR* 2 SE (344° 3 NM from LFT VOR
42 H51/1-19 (2) (S-30, T-40, TT) BL4, 8, 11 S5
F5, JP5 U2 RVV: Rnwy 19 REIL: Rnwy 1
FSS: LAFAYETTE
REMARKS: Rnwy 10 threshold displaced 350 ft E. Rnwy 1 avbl lndg rnwy 10. REIL rnwy 1.
TOWER 118.5 122.5R CLRNC DEL 121.7
GND CON 121.7
APP CON 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193°

LAKE CHARLES MUNI *IFR* 3 S (252° 6.3 NM from LCH VOR
16 H65/15-33 (1) (S-137, T-165, TT-350) BL4, 6, 8A S5
F4, JP4 FSS: LAKE CHARLES
REMARKS: Rgt tfc SE. Rnwy 4-22 clsd ufn.
TOWER 120.7 122.5R GND CON 121.9
APP CON 119.3 122.5R 113.4T 109.1T
ILS 109.1 I-LCH Apch brg 148°

AIRPORT FACILITY DIRECTORY

E
AN FIELD *IFR* 3 E (035° 4.2 NM from MLU VOR)
[illegible] 4-22 7 (S-30, T-40, TT) BL4, 6, 8 S5
[illegible] U2 FSS: MONROE on Fld
ROE TOWER 119.1 122.5R
ONROE GND CON 121.9
ONROE APP CON 119.1 122.5R
[illegible]9.5 I-MLU Apch brg 038°

LEANS-LAKEFRONT *IFR* 4 NE (079° 7.4 NM from [illegible] R.
[illegible]7 17-35 4[illegible] BL4 S5 FS, JP1, 5 U2
FSS: NEW ORLEANS on Fld
ARKS: Acft transporting any items listed in part 49 of [illegible] prior pmsn rqrd to Ind. Rnwy 35 threshold displaced [illegible] ft N. 4504 ft avbl lndg rnwy 35. No ngt operns rnwy [illegible]
EFRONT TOWER 119.5 126.2 122.5R
AKEFRONT GND CON 121.7
DAR SERVICES:
EW ORLEANS APP CON 125.5 122.7R 118.1
EW ORLEANS DEP CON 121.0

LEANS INTL-MOISANT FLD *IFR* 10 W (237° 4.4 NM from [illegible] CR.
[illegible]2 10-28 13[illegible] (S-120, T-180, TT-400) BL4, 6, 8A, 11 S1
JP1, 5 U2 REIL: Rnwy 1 RVV: Rnwy 10
FSS: NEW ORLEANS (DL)
MARKS: Fee on gross lndg wt. Rnwy 10-28 clsd constr [illegible] appx Jan 1965. U S Customs - Lndg rts arpt 7am-[illegible]m Mon-Sat; req arr notice be forwarded to US customs [illegible] filing flt plan in Canada, Mexico or Cuba.
SANT TOWER 119.9 126.2 122.7R 3023.5RX 278T
OISANT GND CON 121.9
DAR SERVICES:
PP CON [1]125.5 122.7R 118.1 109.9T
EP CON 120.4
FC INFO Ctc APP CON on 118.5
SR Rnwys 1, 5, 19 ceil 500 vsby 1 mi min alt 503.
Rnwys 10, 23, 28 ceil 400 vsby 1 mi min alt 403.
[illegible]9.9 I-MSY Apch brng .099
[illegible] DF available, contact tower.
MARKS. [1]Acft transitioning New Orleans NAS MCC use [illegible]w Orleans ARTCC freq 126.0 durg IFR above [illegible]00, durg VFR use New Orleans APP CON freqs 118.1 & [illegible]2.7R.

PORT
TER SHREVEPORT *IFR* 4 SW (135° 3.6 NM from SH LOM)
[illegible]73 13-31 [illegible]2[illegible] (S-90, T-135, TT-300) BL4, 6, 8 FS
[illegible]. Rnwy 13 FSS: SHREVEPORT on Fld
EVEPORT TOWER 118.3 122.7R 201T
HREVEPORT GND CONN 121.9
DAR SERVICES: (BCN)
HREVEPORT APP CON 118.5 123.9 122.5R 117.4T
[illegible]14.8T
HREVEPORT DEP CON 119.9
FC INFO Ctc APP CON on 118.5
[illegible]19.3 I-SHV Apch brg 135°

SHREVEPORT DOWNTOWN *IFR* 2 N (DTN VOR on fld)
[illegible]79 H45 14-32 [illegible].3 (S-30, T-40, TT) BL4 S5 FS
FSS: SHREVEPORT (DL)
REMARKS Due non-vsby some areas of fld ctc twr for instr. Apchs rnwys 14, 32, 18 and 36 restricted by trees-glide angle 0
TOWER 119.5 122.5R 272T GND CON 121.7
RADAR SERVICES: (BCN)
SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
SHREVEPORT DEP CON 119.9

MAINE

PORTLAND MUNI *IFR* 2 W (112° 5.4 NM from PW LOM)
[illegible]66 H50 11-29 (2) (S-117, T-142, TT-220) BL4, 6, 7, 10 S5
FS, JP1 U2
VASI: Rnwy 29 FSS: PORTLAND on Fld
REMARKS: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slop maximum penetration of 27' lctd at the end of rnwy and 800' rgt cntrline. Lesser penetrations lctd 250'-430' from end of rnwy and 720'-890' left cntrline 1890'-2180' from end of rnwy and 900'-1090' left cntrline.
TOWER 120.9 122.5R 109.9T GND CON 121.9
APP CON 120.9
ILS 109.9 I-PWM Apch Brg 112° BC unusable

MARYLAND

BALTIMORE
FRIENDSHIP INTL *IFR* 8S (BAL VOR on FLD)
[illegible]46 H94 10-28 (3) S-240, T-500, TT-700) BL6, 8A, 10, 11
S5 F5, JP1, 4, 5 U2 VASI: Rnwy 4 RVR: Rnwy 10
REIL rnwys 4, 22 FSS: WASHINGTON (DL)
REMARKS: For Customs use gates A-14 and A-3 clsd 10 PM to 6:30 AM to practice approaches or landings by turbojet and turboprop due noise complaints.
TOWER 118.7 122.7R 109.7T GND CON 121.9
RADAR SERVICES:
BALTIMORE APP CON 121.1[1] 125.9[2]
BALTIMORE DEP CON 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646
ILS 109.7 I-BAL Apch brg 102°
VHF DF available, contact tower.
REMARKS: [1]101° - 279
VOT: 108.2 280-100

MARYLAND–Continued

BALTIMORE
MARTIN 9 E (058° 14 NM from BAL VOR)
18 H81 14-32 (4) (S-50, T-160, TT) L6
FSS: WASHINGTON (DL)
Remarks: Prior permission required.
TOWER [1]121.3 126.2 317T
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[3]
BALTIMORE DEP CON 120.4
REMARKS: [1]Oper 1200-2030Z Mon; 1200-0330Z Tues, Wed & Thurs; 1230-2100Z Fri; 1230-2100Z Sat & Sun- 280-100° · 101° - 279°

MASSACHUSETTS

BEDFORD
LAURENCE G HANSCOM FLD *IFR* 1 S 112° 4 NM from BE RBn
133 H70/11-29 (2) (S-80, T-200, TT-355) BL4, 6, 8, 9, 10, 11 S5 F5, JP1,4 U2 VASI: Rnwys 11, 29 REIL: Rnwys 23, 29 RVV: Rnwy 11 FSS: BOSTON (DL)
TOWER 118.5 126.2 124.4 122.5R 3023.5RX
GND CON 121.7 VFR ADV Inbnd acft ctc APP CON
APP CON 124.4 126.2
RADAR SERVICES:[1]
PAR Rnwy 11 Ceiling 300 Vsby ¼ mi Min Alt 433
ILS 109.5 I-BED Apch brng 112°
VHF/DF available, contact tower.
REMARKS: [1]GCA oper 1400-0400Z Mon-Sat.
VOT: 110.0

BOSTON
LOGAN INTL *IFR* 1 E (BOS VOR on FLD)
19 H100/4R-22L (4) (S-200, T , TT) BL6, 8A, 10
S5 F4, JP4, 5 U2 VASI: Rnwy 22L RVR: Rnwy 4R
FSS: BOSTON on Fld
REMARKS: FEE. Lndg threshold rnwy 4R displaced 2502' to NE, 10,023' avbl except lndg length toward NE restricted to 7521' during IFR conditions and hrs of darkness. Rnwy 4L-22R usable width 150' threshold at apch end rnwy 22R re-located 800' SW. Tmprly lndg thr eshold rnwy 4R displaced 2502' to NE for all lndg operns.
BOSTON TOWER 118.1 126.2 122.5R 110.3T
CLRNC DEL 121.65 BOSTON GND CON 121.9
RADAR SERVICES:
BOSTON APP CON [1]120.7 [2]126.5 126.2 122.5R 110.3T [3]120.6 382T
BOSTON DEP CON 119.1
PAR Rnwy 4R ceil 200 vsby ½ mi min alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719. Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619. Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519
ILS 110.3 I-Bos Apch Brg 035° BC unusable. 110.7 I-LIP Apch Brg 330° BC unusable
VHF/DF available, contact Tower.
REMARKS: [1]To be decomsnd. [2]215-319° [3]320°-274°
VOT: 111.0

MASSACHUSETTS–Continued

HYANNIS
BARNSTABLE MUNI *IFR* 1 N (242° 3.2 from HYA VOR
52 H55/6-24 (2) (S-46, T-88, TT-134) BL4, 6, 8, 1[illegible] S
F5, JP5 U2 RVV: Rnwy 24 REIL: Rnwy 6
FSS: NANTUCKET
REMARKS: Poles SE, SW. E 2000' rnwy 11-29 open for ac
lndgs and tk-ofs to acft under 12,500 lbs on pilot reg only
HYANNIS TOWER 119.5 122.5R
HYANNIS GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 110.5 I-HYA Apch Brg 246° BC unusable

NANTUCKET MEMORIAL *IFR* 3 SE (240° 1.9 NM from ACK VO
47 H50/6-24 (2) (S-90, T-160, TT-293) BL4, 6, 8 S
RVV: Rnwy 24 FSS: NANTUCKET
REMARKS: Ctn-birds vic fld.
TOWER [1]118.3 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 109.1 I-ACK Apch Brg 240°
VHF/DF available, contact FSS.
REMARKS: [1]Oper 1200-0400Z advisory svc other times.

NEW BEDFORD MUNI *IFR* 2 NW (053° 3.8 NM from EWB VO
79 H50/5-23 (2) (S-50, T-65, TT) BL4, 6, 8 S5 F4
U2 FSS: NANTUCKET
REMARKS: ILS apch zone for rnwy has unlgtd trees penetrating above the 7 to 1 slope.
TOWER 121.3 122.5R 109.7T GND CON 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053°

WESTFIELD
BARNES MUNI *IFR* 3 N (BAF VOR on field)
270 H90/2-20 (3) (S-60, T , TT BL4, 6 S5 F4
FSS: WINDSOR LOCKS
REMARKS: Acft arresting barriers installed rnwy 2[illegible] on req.
WESTFIELD TOWER [1]121.3 126.2 122.5R
WESTFIELD GND CON 121.7
REMARKS: [1]Oper 1100-0300Z.

WORCESTER MUNI *IFR* 3 W (332 4 NM from ORH VOR
1009 H71 (11-29) (3) (S-90, T , TT) BL6, 7 S5
F4, JP1 RVV: Rnwy 33 FSS: WORCESTER
REMARKS: Rnwy 11-29 threshold displaced 150'
TOWER 120.5 121.9 110.9T 255T
GND CON 121.9
ILS 110.9 I-ORH Apch Brg 332° BC unusable

AIRPORT/FACILITY DIRECTORY

MICHIGAN

LE CREEK
KELLOGG REGIONAL AIRFIELD *IFR* 3 W (BTL VOR on
e 2
41 H70 4-22 41 (S-40, T-65-TT-115) BL4, 6 8A S5 F4
FSS: JACKSON
EMARKS: Rnwys 9-27, 18-36 clsd dur winter mos. E ramp S
ide ter and portion N ramp mil area not visible from twr.
ATTLE CREEK TOWER 118.5 122.5R 396T
BATTLE CREEK GND CON 121.9
VFR ADV Ctc APP CON on 121.2 when 25 mi out.
BATTLE CREEK APP CON 121.2 122.5R
.S 110.5 I-BTL Apch brg 224°

OIT CITY *IFR* 5 NE (350° 12.3 NM from QG VOR) AOE
.6 H46 15R-33L (3) (Max-15) BL4 S5 F4, JP1 U2
FSS: DETROIT (DL)
OWER 118.7 122 5R GND CON 121.9
APP CON 120.0 122.5R
DEP CON 127.3
HF DF available, contact tower.
VOT: 112.0

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OIT METROPOLITAN WAYNE CO *IFR* 13 SW (032° 4.2 NM
on DTI LOM) AOE
3? H105 3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 10
5 F4, JP1, 4 U2 VASI: Rnwy 27 RVR: Rnwy 3L
FSS: DETROIT on Fld
REMARKS: Rnwy 15 threshold displaced 650'.
ETROIT METROPOLITAN TOWER 121.1 126.2 122.7R
109.3T
CLRNC DEL 120.65
DETROIT METROPOLITAN GND CON 121.7
ADAR SERVICES:
WILLOW RUN APP CON 123.7 125.15 124.9 122.6R
114.9T 109.5T 332T
WILLOW RUN DEP CON 118.4
.S 109.3 I-DTW Apch Brg 032° 110.7 I-DWC Apch
Brg 212°

OIT
LOW RUN *IFR* 19 SW (YIP VOR on field)
16 H75 5R-23L (5) (S-60, T-90, TT-200) BL2, 4, 6, 8
S FS, JP1, 4 RVR: Rnwy 5R FSS: DETROIT (DL)
EMARKS: First 500' rnwy 9L not vis from twr.
OWER 121.3 122.6R 109.5T GND CON 121.9
ADAR SERVICES:
APP CON 125.15 124.9 123.7 122.6R 114.9T 109.5T
DEP CON 118.4
TFC INFO Ctc APP CON on 124.9 or 123.7
PAR Rnwy 5R ceil 200 vsby ½ mi min alt 916. Rnwy 5L
ceil 400 vsby 1 mi min alt 1116
ASR Rnwy 9L ceil 600 vsby 1 mi min alt 1316. Rnwys 5I,
5R, 14, 36 ceil 500 vsby 1 mi min alt 1216. Rnwys
18, 23L, 23R, 27L, 27R, 32 ceil 400 vsby 1 mi min alt 1116
LS 109.5 I-YIP Apch Brg 050°
HF DF available, contact tower.
OT: 109.0

MICHIGAN—Continued

FLINT
BISHOP *IFR* 3 SW (FNT VOR on field)
781 H56 9-27 (3) (S-40, T-60, TT-110) BL4, 6, 8 S5 F4
U2 FSS: FLINT on Fld
REMARKS: Rnwy 18 threshold displaced 635 ft.
FLINT TOWER 119.5 123.6 122.5R 111.6T 109.9T
FLINT GND CON 121.9 VFR ADV Ctc APP CON on
123.6 aprx. 25 NM out.
FLINT APP CON 123.6 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091°

GRAND RAPIDS
KENT COUNTY *IFR* 6SE (351° 5.7 NM from GRR VOR)
793 H66 8-26 (2) (Max-45) BL6, 8 S5 F5, JP1 U2
RVV: Rnwy 26 FSS: SAGINAW
TOWER 119.3 122.5R GND CON 121.9
VFR ADV Inbnd VHF equipped acft ctc APP CON on
124.6 MCS 10 mi out.
GRAND RAPIDS APP CON 124.6 122.5R 109.7T 329T
ILS 109.7 I-GRR Apch Brg 262

JACKSON
REYNOLDS MUNI *IFR* 2 W (JXN VOR on field)
1000 H53 5-23 (2) (S-60, T-80, TT-) BL5 S5 F4
REIL: Rnwy 23 (1200-0400) FSS: JACKSON on Fld
REMARKS: Rnwy 5 threshold displaced 627 ft. Rnwy 31
threshold displaced 550'.
JACKSON TOWER [1]120.7 122.5R 121.9 109.6
CLRNC DEL 121.9
JACKSON GND CON 121.9
REMARKS: Twr oper 1200-0400Z.

KALAMAZOO MUNI *IFR* 1 SE (AZO VOR on field)
874 H53. 17-35 (3) (S-30, T-50, TT-85[1]) BL4, 6, 8 S5
F4, JP5 U2 FSS: JACKSON (LC ST 4-9640)
REMARKS: [1](S-40, T-65, TT-110) avail rnys 5-23 & 9-27
TOWER [1]118.3 122.7R 362T GND CON 121.7
BATTLE CREEK APP CON 121.2
ILS 110.9 I-AZO Apch Brg 352°
REMARKS: [1]Oper 1200-0400Z.

LANSING
CAPITAL CITY *IFR* 3 NW (054° 5.4 NM from LAN VOR)
859 H65 9-27 (2) (S-30, T-40, TT) BL4, 6, 8 S5
F4, JP1 RVV: Rnwy 27 FSS: LANSING on fld
LANSING TOWER 119.9 122.5R 110.8T 110.1T
LANSING GND CON 121.9 VFR ADV Ctc APP CON on
127.4 aprx 25 NM out.
LANSING APP CON 127.4 122.5R 110.8T 110.1T
ILS 110.1 I-LAN Apch Brg 273°

MUSKEGON CO *IFR* 4 S (272° 8.4 NM from MKG VOR)
628 H56. 14-32 (3) (S-30, T-40, TT) BL6, 8 S5 F4
U2 RVV: Rnwy 32 FSS: MUSKEGON on Fld
REMARKS: Rnwy 36 threshold displaced 300'. Rnwy 14
threshold displaced 300'.
TOWER 121.1 122.5R GND CON 121.9 VFR ADV Ctc
APP CON aprx 25 mi out on 118.2
APP CON 118.2 122.5R 115.2T 109.9T
ILS 109.9 I-MKG Apch Brg 317° BC unusable

AIRPORT/FACILITY DIRECTORY

MICHIGAN–Continued

PONTIAC MUNI *IFR* 5 W (119° 4.9 NM from PTK VOR)
974 H53/9-27 (3) (S-40, T-65, TT-110) BL6 S5 F4 U2
FSS: DETROIT (LC PA 2-8790)
TOWER [1]120.5 122.5R 275Tx GND CON 121.9
RADAR SERVICES:
CLEVELAND CENTER APP CON 126.4
CLEVELAND CENTER DEP CON 126.4
REMARKS: [1]Oper 1100-0300Z.

MINNESOTA

DULUTH INTL *IFR* 5 NW (013° 2.2 NM from DLH VOR) AOE
1429 H101/9-27 (3) (S-60, T-100, TT-185) BL4, 6, 8 S5
F5, JP4 VASI: Rnwy 27 RVV: Rnwy 9-27
FSS: HIBBING
REMARKS: Caution, const in prog. 2000' concrete extsn w of rnwy 9 threshold lgts and end mrkgs unusable. Jet arresting barrier cable installed 600' from apch end rnwy 27 and 2650' from apch end rnwy 9. 1000' overrun rnwy 27.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 125.8 122.5R 112.6T 110.3T
DEP CON 126.2
PAR Rnwy 9, 27 Ceil 200 Vsby ½ mi Min Alt 1629
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829. Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS 110.3 I-DLH Apch Brg 088°
VHF/DF available, contact Tower.
REMARKS: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx.

MINNEAPOLIS
CRYSTAL *IFR* 8 NW (166° 4.9 NM from MSP VOR)
869 H32/13L-31R (2) (Max-4) BL4 S5 F4
FSS: MINNEAPOLIS (DL)
REMARKS: Grass strips usable but rough. Portions of arpt not visible from twr. Threshold rnwy 23R displaced 400' SW landing distance available 2100'.
TOWER [1]120.7 122.5R 257T GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNEAPOLIS
FLYING CLOUD *IFR* 11 SW (FCM VOR on field)
909 H36/9L-27R (3) (Max 8) BL4 S5 F4, JP4
FSS: MINNEAPOLIS (DL)
TOWER [1]120.5 122.5R 272T GND CON 121.7
RADAR SERVICES
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNESOTA–Continued

MINNEAPOLIS-ST PAUL INTL *IFR* 6S (287° 2.4 NM from RBn)
840 H100/11R-29L (3) (S-120, T-180, TT-400) BL6, 8 S5, JP1, 4 VASI: Rnwy 11R RVR: Rnwy 4
FSS: MINNEAPOLIS
REMARKS: First 1000' NE end rnwy 4-22 clsd to non-[illegible] Rnwy 11L-29R threshold displaced 610' SE. Twr unable see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
MINNEAPOLIS TOWER 118.7 126.2
CLRNC DEL 119.55
MINNEAPOLIS GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7 117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
PAR Rnwy 29L Ceil 300 Vsby ¾ mi Min Alt 1[illegible]
ASR Rnwy 11R Ceil 400 Vsby 1 mi Min Alt 1440. Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° 109.3 I-APL Apch brng 039°
VHF/DF available, contact Tower.
REMARKS: CAUTION–on apch to rnwy 11R do not descend below 1400' until radar controller has advised passing [illegible] fm apch end rnwy 11R.
VOT: 111.0

ROCHESTER MUNI *IFR* 7 S (025° 8.3 NM from RST VOR.
1310 H64/13-31 (2) (Max 60) BL4, 6, 8 S5 F4, JP4
RVV: Rnwy 31 FSS: ROCHESTER
TOWER 118.3 122.5R 121.9 278Tx GND CON 121.9
VFR ADV Ctc APP CON on 119.8.
APP CON 119.8 122.5R 112.0T 109.9T
ILS 109.9 I-RST Apch Brg 307°

ST PAUL-DOWNTOWN *IFR* 1 S (289° 4.6 NM from STP VOR
703 H55/12-30 (3) (Max 45) BL2, 4 S5 F5, JP5 U2
FSS: MINNEAPOLIS
REMARKS: 4562 ft avbl lndg rnwy 12. NE-SW rnwy used as txwy.
ST PAUL TOWER [1]119.1 122.5R 396T
ST PAUL GND CON 121.7
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7 117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MISSISSIPPI

GULFPORT MUNI *IFR* 3 NE (GPT VOR on field)
28 H90/13-31 (3) (S-60, T-115, TT-120) BL4, 6, S5 JP1 U2
FSS: MOBILE (LC [illegible])
REMARKS: Arrest barrier in oper on Rnwy 13-31. Jet [illegible] Rnwy 13-31 on 5 min notice. 1000 ft overruns on [illegible] 13-31.
TOWER 121.3 122.5R 109.0T GND CON 121.9
APP CON 119.3 122.5R 109.0T

AIRPORT/FACILITY DIRECTORY

MISSISSIPPI—Continued

IN
INS FIELD *IFR* 2 NW (189 10.8 NM from JAN VOR)
H54 16R-34L (2) (Max 151)[1] BL4, 6 S5 F4 U2
FSS: JACKSON (LC 939-5212)
MARKS: [1] Max 20 aval rny 16R-34L.
WER 118.7 126.2 122.5R 278T
DAR SERVICES:
ACKSON APP CON 123.9[1] 125.2[2]
ACKSON DEP CON 123.9 125.2
MARKS: [1]333°-152°. [2]153°-332°.

IN
IPSON FIELD *IFR* 5 E (151° 11.7 NM from JAN VOR)
H85 15-33 (1) (S-120, T-150, TT-265) BL6, 8 S5
JP5 U2 RVV: Rnwy 15 FSS: JACKSON on Fld
CKSON TOWER 120.9 126.2 122.7R 348T
ACKSON GND CON 121.7
DAR SERVICES:
ACKSON APP CON 125.2[1] 123.9[2]
ACKSON DEP CON 125.2[1] 123.9[2]
SR Rnwys 15, 33 Ceil 400 Vsby 1 mi Min Alt 745
110.5 I-JAN Apch Brg 152°
MARKS: [1]153-332°. [2]333°-152°. ILS lclzr usable area estricted to front crs and 35° either side of cntr line.

AN
FIELD 3 SW (129° 3.5 NM from MEI VOR)
H80 1-19 (2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
V: Rnwy 01 FSS: MERIDIAN on Fld
MARKS: Transmissometer rnwy 1.
WER 118.2 126.2 122.5R GND CON 121.9
DAR SERVICES: (BCN)
ERIDIAN APP CON 120.5
ERIDIAN DEP CON 124.7
110.1 I-MEI Apch Brg 004°
MARKS: Twr opns 1300-0500Z.

MISSOURI

S CITY
CONTINENT INTL *IFR* 15 NW (005° 4.4 NM from MC LOM)
1 H90 18-36 (1) (S , T-150, TT-300) BL6, 8 F5, JP1
V: Rnwy 36 FSS: KANSAS CITY (LC GR 1-4572)
MARKS: W 4000' of E/W tzwy avbl for use as rnwy if 12,500 bs or less dur strong winds.
WER [1]120.7 122.4R GND CON 121.8
DAR SERVICES:
ANSAS CITY APP CON 119.5[2] 126.2 1227R 121.1[3]
112.6T 109.9T KANSAS CITY DEP CON 118.1
S 110.5 I-MCI Apch Brg 005°
MARKS: [1]Oper 1300-0500Z. [2]E sector. [3]W sector.

MISSOURI—Continued

KANSAS CITY MUNI *IFR* 4 N (171° 8.7 NM from MRC VOR)
758 H70/18-36 (3) (S-110, T-165, TT-365) BL4, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 18 FSS: KANSAS CITY on Fld
REMARKS: Rnwy 35 usable daylight hrs only.
TOWER 118.3 126.2 125.8 122.7R 121.1 111.4T
CLRNC DEL 125.8 GND CON 121.9
RADAR SERVICES:
APP CON 119.5[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
DEP CON 118.1 PAR Rnwy 18 Ceil 400 Vsby 1 mi
Min Alt 1158.
ILS 109.9 I-MKC Apch Brg 185° BC unusable
VHF DF available, contact tower.
REMARKS: Req all arriving VFR flts eqp with proper simplex freqs make initial ctc with Kansas City app con on appropriate freq for preliminary landing info. Acft approaching fm 001°-180 use 119.5 and fm 180°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth.
VOT: 108.6

ST JOSEPH
ROSECRANS MEMORIAL *IFR* 3 WNW (167° 10.7 NM from STJ VOR)
826 H80 17-35 (3) (S-60, T-160, TT-250) BL4, 6, 8 S5
F4 FSS: ST JOSEPH on Fld
TOWER 119.9 122.5R GND CON 121.9
KANSAS CITY APP CON 121.1 126.2 122.7R 119.5
KANSAS CITY DEP CON 118.1
ILS 110.3 I-STJ Apch Brg 352°

ST LOUIS
LAMBERT-ST LOUIS *IFR* 10 NW (137° 8 NM from STL VOR)
571 H100/12R-30L (4) (Max 75)[1] BL4, 6, 8 S5 F4, JP1, 5 U2 RVR: Rnwy 24 FSS: ST LOUIS on Fld
REMARKS: [1](Max-10D) rnwy 17-35.
ST LOUIS TOWER 118.5 126.2 122.7R 122.5R[1] 119.5
278T CLRNC DEL 119.5 ST LOUIS GND CON 121.9
122.5R
RADAR SERVICES:
ST LOUIS APP CONN 126.5[2] 123.7 122.5R 118.1
[3]117.4T 110.3T ST LOUIS DEP CON 119.9
PAR Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 mi Min Alt 1071. Rnwys 12L, 30R Ceil 500 Vsby 1 ½ mi Min Alt 1071. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° [4]109.7 I-LMR
VHF DF available, contact tower.
REMARKS: [1]May be descmsnd. [2]Southeast arrivals. [3]Northwest arrivals. Except rnwy 12. [4]To be comsnd Jan. 22.
VOT: 111.0

SPIRIT OF ST LOUIS *IFR* 23W (217° 1.2NM from MTS VORTAC)
511 H51/7-25 (1) (T-30) L6 S1 F4
FSS: ST LOUIS (LC PE 1-4411)
REMARKS: Special Air Traffic Rules - Part 93, Subpart G in effect. Unlgtd p-line 1000' W apch end rnwy 7. Rgt tfc rnwy 7.
TOWER[1] 121.3 122.5R 121.5X
REMARKS: [1]Opers 30 min before SR - 30 min after SS daily.

AIRPORT/FACILITY DIRECTORY

MISSOURI–Continued

SPRINGFIELD MUNI *IFR* 5 NW (193° 6.8 NM from SGF VOR)
1267 H56/1-19 (2) (S-80, T-135, TT-300) BL4, 6, 8 S5
F5, TP1 RVV: Rnwy 1 FSS: SPRINGFIELD on Fld
TOWER 119.9 122.5R GND CON 121.9
VFR ADV 125.8
APP CON 125.8 122.5R 116.9T 109.9T
ILS 109.9 I-SGF Apch Brg 015°

MONTANA

BILLINGS
LOGAN FIELD *IFR* 2 NW (070° 3.2 NM from BIL VOR)
3606 H86/9-27 (3) (S-60, T-80, TT-120) BL2, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 9 FSS: BILLINGS on Fld
BILLINGS TOWER 118.3 122.5R 3023.5R 278T
BILLINGS GND CON 121.9
BILLINGS APP CON 118.3 122.5R 120.5 114.5T
110.3T 3023.5R 278T
ILS 110.3 I-BIL Apch Brg 095°

GREAT FALLS INTL *IFR* 3 SW (026° 1.9 NM from GTF VOR)
3671 H90/3-21 (4) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwys 16, 34
FSS: GREAT FALLS on Fld
REMARKS: Rnwy 7-25 rest to acft 64,000 lbs or less.
TOWER 118.7 126.2 122.5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1 134.1 126.2 122.7R 122.5Rx 121.1
119.3 116.3T 3023.5Rx DEP CON 121.1
TFC INFO Ctc APP CON on 118.1 119.3 or 122.5R
ILS 110.3 I-GTF Apch Brg 341° BC unusable

HELENA *IFR* 2 NE (240° 0.7 NM from HLN VOR)
3873 H70/8-26 (3) (S-60, T-70, TT-122) BL 4 S5 F5, JP4
U2 FSS: HELENA on Fld
REMARKS: Rnwy 11-29 rest to 100,000 lbs GWT. Rgt tfc W, SW, NW.
HELENA TOWER 118.3 122.5R 278T GND CON 121.9

MISSOULA CO *IFR* 4 NW (MSO VOR on fld)
3203 (H59/16-34 (3) (Max-30) BL2, 4 S5 F4 U2
FSS: MISSOULA on Fld
REMARKS: Rnwy 11-29 rest to 150,000 lbs gwt with 1387 ft emerg overrun NW end for acft under 25,000 lbs. Rnwy 16-34 rest to 65,000 lbs GWT. Rnwy 7-25 rest to 12,500 lbs GWT.
TOWER [1]118.5 122.5R 278T GND CON 121.9
REMARKS: [1]Oper 1300-0500Z.

NEBRASKA

LINCOLN MUNI/AFB *IFR* 4 NW (351° 4.8 NM from LN RBN)
1198 H129/17R-35L (2)[1] (Max-15) BL4[1], 6, 8A, 11 S5
F5, JP1 RVV: Rnwys 17, 35 REIL: Rnwy 17R
FSS: LINCOLN on Fld
REMARKS: [1]H129 17R-35L IFR, BL6, 8 (Mil). All civ acft use 4000 ft rnwy 17L-35R excpt in actual IFR conditions or when acft manufacturers recommendations rqr the use of rnwy 17R-35L.

NEBRASKA–Continued

LINCOLN MUNI/AFB–(Continued)
TOWER 118.5 126.2 122.5R 272T GND CON 1
RADAR SERVICES: (BCN)
APP CON 123.7 124.8 120.4 109.9T 108.6T
3023.5R DEP CON 1
TFC INFO ctc twr 25 mi out.
ILS 109.9 I-LNK Apch Brg 351°

OMAHA
EPPLEY FIELD *IFR* 3 NE (309° 10.2 NM from OMA VOR
983 H85/14-32 (4) (S-180, T-200, TT-400) BL4, 6, 8, 11
S5 F5, JP1, 4 RVV: Rnwy 14 REIL: Rnwy 35
FSS: OMAHA
REMARKS: US Customs Indg rts arpt
TOWER 119.1 126.2 122.5R OMAHA GND CON
RADAR SERVICES: (BCN)
OMAHA APP CON 120.1 125.7 122.5R
OMAHA DEP CON 124.5 118.0
ILS 110.3 I-OMA Apch Brg 135°. BC unusable

NEVADA

LAS VEGAS
McCARRAN FIELD *IFR* 5 S (LAS VOR on fld)
2171 H100/7-25 (3) (S-100, T-200, TT-380) BL4, 6
F5, TF1, JP4, 5 U2 VASI: Rnwy 25
FSS: LAS VEGAS
REMARKS: Rnwy 25 threshold displaced 289' W. 9995 rnwy 7-25 dalgt hrs 9016' ngt. Rnwy 32 threshold displaced 379' NW. 4027' avbl lndg rnwy 32. Rnwy 1 threshold displaced 625' N. 5878' avbl lndg rnwy 1.
TOWER 118.3 122.5R 278T GND CON
RADAR SERVICES: (BCN)
LAS VEGAS APP CON 121.1 125.9 122.5R 118.6
LAS VEGAS DEP CON 119.4
TFC INFO Ctc APP CON on 121.1 30 mi out
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 25[illegible]
1, 7[1] Ceil 600 Vsby 1 mi Min Alt 2771
REMARKS: [1]Acft inbnd on FAP to rnwys 1 or 7 will descend not lwr than 3100 until pilot is notified by RAPCON that has passed a pt 3 mi before the rnwy.

RENO MUNI *IFR* 2 SE (229° 5.1 NM from RNO VOR)
4411 H90/16-34 (2) (S-100, T-200, TT-350) BL6, 8 S5
F5, JP1, 5 U2 FSS: RENO
TOWER 118.3 278T GND CON
APP CON 119.2 117.9T 254T

NEW HAMPSHIRE

MANCHESTER
GRENIER FIELD *IFR* 3 S (337° 4.2 NM from MHT VOR
233 H70/17-35 (2) (S-127, T-200, TT-400) BL4, 5
U2 REIL: Rnwy 35 FSS: CONCORD
TOWER[1] 121.3 126.2 122.5R
REMARKS: [1]Oper 1000-0300Z.

AIRPORT FACILITY DIRECTORY

NEW JERSEY

ATLANTIC CITY (POMONA) *IFR* 9 NW (ACY VOR on arpt)
H100 [illegible] MAX-60 BL4, 6, 8 S5 F5, JP4
FSS: MILLVILLE (LC 399-8076)
MARKS: Fee.
TOWER 119.5 [illegible] 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
ATLANTIC CITY APP CON 124.6 126.2 122.5R 119.5
[illegible]T
ATLANTIC CITY DEP CON 128.4
AR Rnwy 13 Ceil 200 Vsby 1 2 mi Min Alt 276.
Rnwys 4, 31 Ceil 300 Vsby 3 4 mi Min Alt 376
5R Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby
mi Min Alt 576
[illegible]5 I-ACY Apch Bng 128° BC unusable
DF available, contact tower
MARKS: [1]400 auz for rnwys 13, 17, 22, 22, 26, 31.

[illegible]LL-WRIGHT 1 N (146 16.1 NM from SAX VOR)
H87 4-22 [illegible] (MAX-20) BL4 S5 F5 U2
FSS: TETERBORO
MARKS: Rgt tfc rnwy 22, 27. Rft tfc on tkofs only rnwy 32.
[illegible] attended 8 AM to 9 PM.
DEP PROC: Rnwy 27 acft shall not start crosswind leg
[illegible] well past the school lctd 1 4 mi to the right of the ex-
[illegible]ed rnwy centerline and 1 4 mi from the arpt. Rnwy 32
[illegible] shall bear right as soon as practicable after take-off to
[illegible] flying over the Fairfield township school lctd 1 4 mi
[illegible] of arpt and slightly left of the extended rnwy centerline.
TOWER [1]126.5 122.5R
RADAR SERVICES:
NEWARK APP CON 127.6[2] 124.3[3] 122.7R 120.6
[illegible]3.5R
NEWARK DEP CON 119.2 120.6
MARKS: [1] Oper 1330Z-SS daily. [2]270°-089°. [3]090°-
[illegible].

[illegible]TOWN MUNI *IFR* 2 E (020° 3.1 NM from CAT RBn)
H40 4-22 (2. BL4, 6 S5 F5, JP1 U2
FSS: TETERBORO (LC JE8-2196)
MARKS: Dips first 800 ft rnwy 22. Ngt trng flts by non-
[illegible]sed acft prohibited. Due obstns, ramp and txwys not ctld
[illegible]wr. Use at pilots' discretion.
TOWER[1] 118.1 122.7R GND CON 121.7
NEWARK APP CON 127.6[2] 124.3[3] 120.6 122.7R
NEWARK DEP CON 119.2 120.6
MARKS: [1]Oper 1200-0400Z. [2]North. [3]South.

[illegible] MUNI *IFR* 2 S (058° 1 NM from EWR RBn)
H70 4-22 (2) (MAX-55) BL4, 6, 8A, 10, 11 S5 F5, JP1
REIL and VASI: Rnwy 29 RVR: Rnwy 4
FSS: TETERBORO (DL)
MARKS: US Customs lndg rts arpt fee.
TOWER 118.3 126.2 122.7R 110.3T 109.3T 109.1T
CLRNC DEL 121.4 GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 127.6[2] 124.3[3] 122.7R 120.6 110.3T 109.3T
[illegible]3.5R 379T
DEP CON 119.2 120.6
TFC INFO Inbnd tfc ctc APP CON on 126.2 25 mi out.
PAR Rnwy 4 Ceil 200 Vsby 1 2 mi Min Alt 218

NEW JERSEY—Continued

NEWARK MUNI-(Continued)
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. 109.1
I-ARR Apch Brg 217°
VHF DF available, contact tower.
REMARKS: [1]Min ceil 700 apply for rnwy 11. [2]North. [3]South.
VOT: 108.6

TETERBORO MUNI *IFR* 1 SW 060° 4 NM from TE LOM.
7 H50 6-24 (3) MAX-20. BL4, 8 S5 F5, JP1
FSS: TETERBORO on Fld
REMARKS. Fee. Clsd to jet acft except prior pmsn. Rnwy
24 apch restricted by poleline-glide angle 6 to 1.
TOWER 119.5 122.5R GND CON 121.9
RADAR SERVICES.
NEWARD APP CON 127.6 124.3
NEWARK DEP CON 119.2 120.6
ILS 109.3 I-TEB Apch Brg 060°. BC unusable

TRENTON
MERCER COUNTY *IFR* 4 NW 081° 4.6 NM from ARD VOR)
2[illegible]3 H52 6-24 3[illegible] (S-30, J-[illegible], TT-[illegible]) BL4, 11 S5 F4, JP4, 5
U2 REIL: Rnwy 6 FSS: PHILADELPHIA (DL)
REMARKS Fee. Rnwy 6 apch restricted by poleline-glide
[illegible]
TRENTON TOWER 119.3 122.5R
TRENTON GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R 109.3T
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089°. [2]090°-269°.

NEW MEXICO

ALBUQUERQUE-SUNPORT KIRTLAND AFB *IFR* 3 SE (077° 9.6 NM from ABQ VOR)
5352 H127 8-26 (4) (S-100, T-155, TT-445) BL4, 6, 8, 10
S5 F5, JP1, 4 U2 VASI: Rnwy 8
RVV: Rnwy 35 FSS: ALBUQUERQUE on Fld
REMARKS: Tkofs rnwys 03 and 35 restricted to conventional type acft DC-3 and smaller
ALBUQUERQUE TOWER 118.3 126.2 122.5R 119.2
CLRNC DEL 119.2
ALBUQUERQUE GND CON 121.9
RADAR SERVICES: (BCN)
ALBUQUERQUE APP CON 124.3 134.1 126.2 123.9
122.5R 121.1 113.2T 110.3T
ALBUQUERQUE DEP CON 121.1
TFC INFO Ctc APP CON on 123.9 25 mi out.
PAR Rnwy 8[1] Ceil 300 Vsby 3 4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I-ABQ Apch Brg 350°
REMARKS: [1]500-1 1 2 rqrd for civil jet acft.
VOT: 111.0

HOBBS, LEA COUNTY *IFR* 4 W (030° 3.5 NM from HOB VOR)
3659 H63 3-21 (4) BL4, 6 S5 F4 U2
FSS: HOBBS on Fld
TOWER 118.3 126.2 122.5R 215T GND CON 121.9

AIRPORT/FACILITY DIRECTORY

NEW MEXICO–Continued

ROSWELL MUNI *IFR* 1 NW (027° 4.9 NM from ROW VOR)
3623 H55, 12-30 (4) (S-40, T-55, TT-) BL4 S5 F4
FSS: ROSWELL on Fld
REMARKS: Rgt tfc rnwys 12, 17, 21, 26
TOWER[1] 118.5 122.5R GND CON 121.9
WALKER APP CON 123.8 126.2x 122.7R 120.2x
WALKER DEP CON 123.8 122.7R
TFC INFO [2]Ctc Walker APP CON 30 mi out on 123.8, 120.2 122.7R
REMARKS: [1]Oper 1300-0500Z. [2]Ots ufn.

SANTA FE COUNTY MUNI *IFR* 9 SW (332° 4.2 NM from SAF VOR)
6344 H83/2-20 (3) (S-45, T-60, TT-) BL4 S5 F4, JP1
FSS: SANTA FE on Fld
TOWER 126.2 122.5R 119.5 GND CON 121.7

NEW YORK

ALBANY COUNTY *IFR* 6 NW (ALB VOR on fld) AOE
288 H50, 1-19 (3) (S-110, T-200, TT-400) BL4, 6, 8 S5
F5, JP1, 4 RVV: Rnwy 19 FSS: ALBANY on Fld
REMARKS: Fee. Rnwy 1 apch restricted by road-glide angle 1 to 1. Rnwy 33 apch restricted by trees-glide angle 1 to 1.
TOWER 119.5 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.0 124.7 122.5R 109.5T
DEP CON 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I-ALB Apch Brg 191°
VOT: 109.0

BETHPAGE
GRUMMAN-BETHPAGE *IFR* Adj W (265° 9 NM from DPK VOR)
119 H66/15-33 (2) (MAX-25) BL4 F5, JP4, 5
FSS: ISLIP (DL)
REMARKS: Clsd to public. Rnwy 10 apch restricted by poleline-glide angle 5 to 1.
TOWER[1] 126.2 121.3 323T GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 118.4
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2330Z Mon-Fri. [2]054°-110°. [3]110°-160°

BINGHAMTON
BROOME COUNTY *IFR* 7 N (076° 7 NM from BGM VOR)
1629 H56/16-34 (2) (S-120, T-160, TT-) BL4, 6, 8, 12 S5
F5, JP1 RVV: Rnwy 34 FSS: BINGHAMTON on Fld
TOWER 119.3 122.5R 114.3T 110.3T 112.1T
GND CON 121.9
RADAR SERVICES:
APP CON 118.6 DEP CON 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi
Min Alt 2029
ILS 110.3 I-BGM Apch Brg 338° BC unusable

NEW YORK–Continued

BUFFALO
GREATER BUFFALO INTL *IFR* 5 E (287° 3.6 NM from ELI VOR) 719 H56/5-23 (2) (S-120, T-180, TT-400)
BL4, 6, 11 S5 F5, JP1, 4, 5 RVV: Rnwy 23
REIL: Rnwys 23 and 31 FSS: BUFFALO [illegible]
REMARKS: Fee. Ctn apch restricted rnwy 23. 4745' [illegible] rnwy 23.
TOWER 120.5 120.1 122.5R
CLRNC DEL 124.7 GND CON
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1
BUFFALO DEP CON 125.5
TFC INFO Inbnd acft ctc BUFFALO APP CON on 123.7 aprx 25 mi out.
ASR Rnwys 5, 18, 23, 31, 36 Ceil 400 Vsby 1 mi Min Alt 1119, Rnwy 13 Ceil 500 Vsby 1 mi [illegible]
ILS 110.3 I-BUF Apch Brg 232°
VHF/DF available, contact tower
VOT: 109.0

CALVERTON
PECONIC RIVER *IFR* 2 W (091° 4.6 NM from RVH VOR)
75 H100/14-32 (2) (MAX-50) BL6 S5 F5, JP4, 5
FSS: [illegible]
REMARKS: Clsd to public.
TOWER[1] 121.3 126.2 122.5R 3023.5R 323T
GND CON 121.9
ILS 110.7 I-CTO Apch Brg 048°
REMARKS: [1]Oper 1200-0500Z.

ELMIRA
CHEMUNG COUNTY *IFR* 5 NW (066° 6.6 NM from ELM VOR) 951 H56/6-24 (3) (MAX-15) BL4, 6, 8 S5 F5, JP[illegible]
FSS: ELMIRA [illegible]
ELMIRA TOWER 121.1 122.5R ELMIRA GND CON [illegible]
ELMIRA APP CON[1] 121.1 122.5R
ILS[2] 109.1 I-ELM Apch Brg 239°
REMARKS: [1]Oper 1200-0400Z. [2]Rnwy 24 back crs restr [illegible]

FARMINGDALE
REPUBLIC AVIATION CORP *IFR* Adj NE (245° 6.2 NM from DPK VOR)
82 H75/14-32 (2) (MAX-25) L4 F4, JP4 FSS: [illegible]
REMARKS: Clsd to public. Rft tfc rnwy 32.
TOWER[1] 121.3 126.2 122.5R
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 126.05 123.7 [illegible]
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2030Z. [2]054°-110°. [3]110°-160°

ISLIP
MacARTHUR FIELD *IFR* 7 NE (057° 5.3 NM from ISLIP [illegible])
98 H50/6-24 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
F5, TF1 FSS: ISLIP [illegible]
REMARKS: Rnwy 28 apch restricted by trees-glide angle [illegible]
TOWER 119.3 126.2 122.5R 110.1T 3023.5R
GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
ILS 108.3 I-ISL Apch Brg 057°
REMARKS: [1]054°-110°. [2]110°-160°

AIRPORT FACILITY DIRECTORY

NEW YORK–Continued

'ORK
IN F KENNEDY INTL *IFR* 11 SE (JFK VOR on fld'
H-46 13R-31L S- S-100, T-185, TT-340) BL6, 8A, 10,
1 15 55 F5, JP1, 4 U2 **VASI** Rnwy 13R
VV Rnwys 22L, 25L, 31R **REIL:** Rnwy 13L
VR: Rnwys 31L, 4R **FSS:** ISLIP (DL)
EMARKS: Fee. Clsd to fighter type, jet and turbprop acft excp
w/ prior apvl and to routine mil tfc. Rnwy 13R-31L 14,572'
x ... dg threshold 13R displaced 3324', 31L 2600'. Rnwy
... 10,000' with ldg threshold 25 displaced 1800' Rnwy
...R 8345 with ldg threshold rnwy 4L displaced 670
ENNEDY TOWER 119.1 134.1 122.7R 110.9T 109.5T
CLRNC DEL 121.65 **KENNEDY GND CON** 121.9
ADAR SERVICES: (BCN)
KENNEDY APP CON 118.0 134.1 123.7 122.7R 120.8
118.4 109.5T
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
TFC INFO Call Kennedy Tower on 120.8 or 127.05
PAR Rnwy 4R Ceil 200 Vsby 1 2 mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612. Rnwys
22R, 25L Ceil 500 Vsby 1 mi Min Alt 512. Rnwys 7R,
31R Ceil 400 Vsby 1 mi Min Alt 412
S 109.5 I-JFK Apch Brg 043°; 110.9 I-IWY Apch Brg
...°, 111.5 I-RTH Apch Brg 312° BC unusable.
HF DF available, contact tower
EMARKS: [1]054°-110°, [2]110°-160°. IFF svc avbl.
VOT: 112.0

ORK
GUARDIA *IFR* 4 E (178° 0.4 NM from LGA VOR)
H60 13-31 '2) (S-80, T-105, TT-105) BL6, 8A, 10, 11
F5, JP1 U2 **VASI:** Rnwys 13 and 31 **TPA.** 1500
VV: Rnwy 4 **FSS:** TETERBORO (DL)
EMARKS: Fee. Rnwy 31 threshold displaced 175 ft NW.
... avbl ldg rnwy 31. Clsd to jet propelled acft, motorless
... acft over 105,000 lbs unless prior pmsn.
AA DEP PROC: Rnwy 13-rgt turn and proceed over Flushing
Meadow Park before turning on course.
OWER 118.7 122.7R 113.1T[x] 109.9T 108.5T 110.5T
CLRNC DEL 126.15 **GND CON** 121.7
ADAR SERVICES: (BCN)
APP CON 125.7[1] 122.7R 118.9[2] 109.9T 113.1T 108.5T
3.5T **DEP CON** 120.4 128.8
TFC INFO All VFR tfc inbnd ctc APP CON West of Hudson
River 125.7, East of Hudson River 118.9
PAR Rnwy 4 Ceil 400 Vsby 3 4 mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721.
...y 31 Ceil 600 Vsby 1 min Min Alt 621
S 109.9 I-LGA Apch Brg 044° BC unusable; 108.5
I-GDI Apch Brg., 135 , Front crs unusable beyond 15 nmi below
...500', BC unusable beyond 15 nmi below 3000'. 110.5
I-LRD Apch Brg 224 135° BC unusable
HF DF available, contact. APP CON
EMARKS: 180°-359° 360°-179°. Flwg shutdown indef due
...pt constrn: Rnwy 22 ILS and apch lgts; Rnwy 4 ILS, Rnwy
13 VASI; PAR adv svc to Rnwy 22.
VOT: 109.0

...RA FALLS MUNI *IFR* 4 E (277° 4.2 NM from IA LOM)
...0 H91 10L-28R (4) (S-90, T- , TT-) BL4, 6, 8 S3
5 **FSS:** BUFFALO (DL)
EMARKS: First 1000 ft rnwy 28R 10L clsd periodically due
...onst. No signal SS-SR to indicate IFR conditions less than
... mi and or ceil less than 1000 ft.

NEW YORK–Continued

NIAGARA FALLS MUNI (Continued)
NIAGARA TOWER 118.5 126.2 122.7R 110.1T
NIAGARA GND CON 121.7
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1
119.3T 270T
BUFFALO DEP CON 125.5
ILS 110.1 I-IAG Apch Brg 277°. BC unusable.
VHF DF available, contact tower.

ROCHESTER-MONROE CO *IFR* 3 SW (ROC VOR on fld) ADE
560 H70 4-22 S- (S-120, T-190, TT-320) BL4, 6, 8A, 9 S5
F5, JP1 U2 **RVV:** Rnwy 28 **FSS:** ROCHESTER on Fld
REMARKS. Rnwy 30 threshold displaced 690 ft NW. 2351 ft avbl
ldg rnwy 30. Fee. No signal S5-SR to indicate IFR conditions.
TOWER 118.3 122.5R 278T[x] **GND CON** 121.7
RADAR SERVICES: BCN.
APP CON 124.0 120.7 122.5R 110.0T 109.9T
DEP CON 121.0
ASR Rnwy 1 Ceil 600 Vsby 1 1 2 mi Min Alt 1160.
Rnwy 7 Ceil 700 Vsby 1 1 2 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 1 2 mi Min Alt 960
Rnwy 28 Ceil 800 Vsby 1 1 2 mi Min Alt 1360
ILS 109.5 I-ROC Apch Brg 277° BC unusable
REMARKS: IFF svc avbl.

SCHENECTADY COUNTY *IFR* 2 N (GVI RBn on Fld)
378 H70 4-22 (3) (S-50, T , TT) BL4, 6 S5
F5, JP4, 5 U2 **FSS:** ALBANY (DL)
REMARKS: Lgts prior req after 0300Z. First 100 ft apch end
rnwy 10 not vis fm ctl twr. Rnwy 28, 15 and 33 apchs rest
by trees -glide angle 1 to 1.
TOWER[1] 126.2 121.3 3023.5R 356T
RADAR SERVICES:
ALBANY APP CON 125.0 124.7 122.5R 109.5R
ALBANY DEP CON 125.2
VHF DF available, contact tower.
REMARKS.[1] Oper 1100-0300Z

SYRACUSE
HANCOCK *IFR* 4 NE (131 4.7 NM from SYR VOR)
421 H90 10-28-31 (S-120, T-190, TT-350) BL4, 6, 8, 14 S5
F5, JP4 **RVV:** Rnwy 28 **FSS:** SYRACUSE on Fld
REMARKS: Rnwy 6-24 limited to acft 12,500 lbs GWT or less.
SYRACUSE TOWER 126.2 122.5R 119.9
SYRACUSE GND CON 121.7
SYRACUSE APP CON 126.2 122.5R 120.3 117.0T
109.9T 350T
SYRACUSE DEP CON[1] 125.6
ILS 109.9 I-SYR Apch Brg 278°
REMARKS: [1]To be comsnd.

NEW YORK–Continued

UTICA
ONEIDA COUNTY *IFR* 7 NW (318° 11.6NM from UCA VOR)
742 H60 15-33 (2) (S-60, T-80, TT) BL4, 6, 8 S5 F2
U2 FSS: UTICA on Fld
REMARKS: Rgt tfc rnwy 9 & 15.
UTICA TOWER 118.1 122.5R 109.3T
UTICA GND CON 121.9
RADAR SERVICES: (BCN)
GRIFFISS APP CON 118.5 134.1 122.5R
GRIFFISS DEP CON 120.9
ILS 109.3 I-UCA Apch Brg 329°

WHITE PLAINS
WESTCHESTER COUNTY *IFR* 3 NE (162° 4.8 NM from HP LOM)
439 H65 16-34 (3) (S-60, T-220, TT) BL4, 8 S5
F5, JP5 U2 FSS: ISLIP (SC3-4330)
REMARKS: Rnwy 12 & 30 apchs restricted by trees-glide angle 1 to 1. Fee.
TOWER 119.7 126.2 122.5R 109.7T 3023.5Rx
GND CON 121.9
APP CON 121.2 122.5R 109.7T 3023.5Rx
ILS 109.7 I-HPN Apch Brg 162° BC unusable

NORTH CAROLINA

ASHEVILLE MUNI *IFR* 9 S (160° 5.8 NM from ABN RBn)
2161 H65 16-34 (1) (S-24, T-75, TT-125) BL6, 8 S5
F5, JP1, 4 U2 VASI: Rnwy 16 RVV: Rnwy 34
FSS: GREER (LC 684-4401)
REMARKS: Rgt tfc NW.
TOWER 121.1 122.5R GND CON 121.9
APP CON 123.6 122.5R
ILS 110.5 I-AVL Apch Brg 342° BC restricted
REMARKS: Localizer unusable from MM to runway.

CHARLOTTE
DOUGLAS MUNI *IFR* 4 W (CLT VOR on Fld)
748 H75-5-23 (2) (S-50, T , TT)* BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 5 FSS: HICKORY (LC ED 2-7262)
REMARKS: *(Rnwy 18-36-(S-60))
CHARLOTTE TOWER 118.1 126.2 124.0 122.5R
109.5T
CHARLOTTE GND CON 121.9
RADAR SERVICES:
CHARLOTTE APP CON 120.5 126.2 122.5R 119.0
109.5T
CHARLOTTE DEP CON 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceiling 400 Vsby 1 Mi
Min Alt 1148
ILS 109.5 I-CLT Apch Brg 050° BC unsuable
REMARKS: [1]On apch, maint 1300 or abv til 2.5 mi fm apch end of rnwy 23 on final.
VOT: 112.0

NORTH CAROLINA–Continued

FAYETTEVILLE
GRANNIS FIELD *IFR* 3 S (FAY VOR on Fld)
189 H50/3-21 (2) (S-64, T-120, TT-200) BL4, 6 S5
F4, JP4 FSS: FAYETTEVILLE
REMARKS: Rnwy 16 & 34 apch restricted by trees-glide angle 0 to 1.
FAYETTEVILLE TOWER 118.3 122.5R
FAYETTEVILLE GND CON 121.7
RADAR SERVICES: (BCN)
FAYETTEVILLE APP CON[1] 120.6
FAYETTEVILLE DEP CON 120.4
ILS 110.5 I-GRA Apch Brg 034° BC unusable
Loizs usable area restricted to 35° either side of front crs
REMARKS: [1]IFF/SIF svc avbl.

GREENSBORO-HIGH POINT *IFR* 7 W (030° 3 NM from GSO VOR
927 H64/14-32 (2) (S-40, T-55, TT) BL4, 6, 8 S5
F4, JP5 U2 RVV: Rnwy 14 FSS: RALEIGH (LC BR Sch
GREENSBORO TOWER 119.1 126.2 122.5R 109.9T
GREENSBORO GND CON 121.9
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 119.3T
109.9T GREENSBORO DEP CON 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt
1327
ILS 109.9 I-GSO Apch Brg 138°

RALEIGH-DURHAM *IFR* 9 NW (RDU VOR on Fld)
435 H75/5-23 (3) (S-111, T-135, TT-300) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 5 FSS: RALEIGH
REMARKS: No signal btn SS-SR indc gnd vsby of less than 2.6 NM and/or ceil less than 1000 ft. Rnwy 14-32 and 5 ft txwys lmtd to 50,000 lbs GWT
TOWER 119.3 126.2 122.5R 109.5T GND CON 121.9
RADAR SERVICES: (BCN)
RALEIGH APP CON[1] 125.3 122.5R 120.6
TFC INFO Inbnd acft ctc APP CON 25 mi out on 125.3.
RALEIGH DEP CON 120.6 124.8
ILS 109.5 I-RDU Apch Brg 049°
REMARKS: [1]IFF/SIF

WILMINGTON
NEW HANOVER CO *IFR* 2 NE (201° 5 NM from ILM VOR
31 H70/16-34 (3) (S-120, T , TT)* BL4, 6, 8 S5
FE, JP5 FSS: NEW BERN (LC 762-3
REMARKS: *(S-90, T-120, TT-212) avbl rnwy 5-23
(S-30, T-48, TT-86) avbl rnwy 9-27
WILMINGTON TOWER 119.9 122.5R 110.3T 388T
CLRNC DEL 121.9
WILMINGTON GND CON 121.9
WILMINGTON APP CON 123.6 122.5R 110.3T
ILS* 110.3 I-ILM Apch Brg 343° BC unusable
REMARKS: Shut down til May 15 for relocation.

NORTH CAROLINA–Continued

ON-SALEM
H REYNOLDS *IFR* 2 NE (328° 3.9 NM from IN LOM)
[illegible] (S-33, (S-45, T-60, TT) BL4, 6, 8 S5
[illegible] U2 RVV: Rnwy 33
FSS: WINSTON SALEM (LC PA5173),
EMARKS: Apch and rnwy lgts 15-33 oper 11PM-7AM only.
NSTON-SALEM TOWER 118.7 126.2 122.7R 278T
INSTON-SALEM GND CON 121.7
ADAR SERVICES.
GREENSBORO APP CON 118.5 122.5R 120.9 109.9T
GREENSBORO DEP CON 124.6
S 119.3 I-INT Apch Brg 328 BC unusable
EMARKS: 1Oper 1200-0400Z

NORTH DAKOTA

RCK MUNI *IFR* 2 SE (272° 3.6 NM from BIS VOR)
[illegible] H59 12-30 (3) (S-90, T-120, TT) BL4, 6, 8 S5
4 RVV: Rnwy 30 FSS: BISMARCK on Fld
EMARKS: Rnwys 17-35, 2-20 and E-W taxwy restricted to acft
[illegible] 20,000 lbs except when auth by twr. First 800' rnwy
[illegible] clsd to lndg acft
OWER 118.3 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.3
S 119.3 I-BIS Apch Brg 306

0
TOR FIELD *IFR* 2 NW (171° 4.6 NM from FAR RBn)
[illegible] H91 17-35 (3) (S-90, T-120, TT) BL4, 6, 8 S5
S, JP1, 4 U2 RVV: Rnwys 17, 35 FSS: FARGO on Fld
ARGO TOWER 118.3 122.5R
FARGO GND CON 121.9
VFR ADV Ctc APP CON on 125.8mc 25 mi out.
FARGO APP CON 125.8 110.3T 365T
S 119.3 I-FAR Apch Brg 351°

OHIO

N MUNI *IFR* Adj SE (255° 12.4 NM from ACO VOR) AOE
[illegible] H50 7-25 (4) BL4, 6 S5 F5, JP1
EIL: Rnwys 7 and 25 FSS: AKRON on Fld
OWER 120.1 122.7 110.9T
EMARKS: Poles E. Obstns lgt inop SE hill apch rnwy 32
GND CON 121.9
ADAR SERVICES:
AKRON-CANTON APP CON 125.5 126.2 122.5R 109.5T
AKRON-CANTON DEP CON 118.6
LS 110.9 I-AKR Apch Brg 246°

OHIO–Continued

AKRON CANTON *IFR* [illegible] SE 227° 15.4 NM from ACO VOR)
[illegible] H60 1-19 (4) (S-84, T-108, TT-168) BL4, 6, 8, 11 S5
F5, JP1 RVV: Rnwy 1 REIL: Rnwy 23 FSS: AKRON
REMARKS: Down drafts or turbulence frequently encountered
apch end rnwys 5, 23, 32 when wind velocity exceeds 15
knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of
[illegible] arpt
TOWER 126.2 122.5R 118.3 109.5T
GND CON 121.7
RADAR SERVICES.
APP CON 125.5 126.2 122.5R 109.5T
DEP CON 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceiling 400
Vsby 1 mi Min Alt 1628
ILS 109.5 I-CAK Apch Brg 006
VOT: 112.0

COVINGTON, KY (CINCINNATI, OHIO)
GREATER CINCINNATI *IFR* 9 SW Cincinnati (043° 2.3 NM from
CVG VOR)
890 H86 18-36 (3) (S-120, T-200, TT-345) BL4, 6, 8 S5
F5 REIL: Rnwy 27 FSS: CINCINNATI
REMARKS: Rnwy 4-22 clsd to acft over 30,000 lbs. Fee.
CINCINNATI TOWER 118.3 126.2 122.7R
CLRNC DEL 121.3
CINCINNATI GND CON 121.7
RADAR SERVICES:
CINCINNATI APP CON 124.7 126.2 122.7R 119.7
CINCINNATI DEP CON 121.0
ASR Rnwys 4, 9, 18, 36 Ceiling 400 Vis 1 mi Min Alt
1290. Rnwys 22, 27 Ceiling 700 Vis 1 mi Min Alt 1590
ILS 109.9 I-CVG Apch Brng 360° 110.9 I-SIC Apch
Brng 180°
VHF DF available, contact tower or radar
VOT: 108.4

CINCINNATI MUN-LUNKEN FLD *IFR* 3 SE (227° 4.4 NM from
LUK Rng.)
468 H51 6-24 (3) (Max-45) BL4, 8 S5 F4, JP4 U2
FSS: CINCINNATI on Fld
LUNKEN TOWER 126.2 122.5R 118.7
LUNKEN GND CON 121.9
RADAR SERVICES:
CINCINNATI APP CON 119.7 126.2 124.7 122.7R
112.9T CINCINNATI DEP CON 121.0

CLEVELAND
BURKE LAKEFRONT Adj N (069° 23.6 NM from CLE VOR)
584 H52 6-24 (1) (S-31, T-37, TT-55) BL6 S5 F4, JP1
U2 FSS: CLEVELAND (DL)
REMARKS: Fee.
LAKEFRONT TOWER[3] 126.2 122.5R 120.9
LAKEFRONT GND CON 121.9
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 1200-0400Z

AIRPORT/FACILITY DIRECTORY

OHIO—Continued

CLEVELAND-HOPKINS INTL 9 SW (015° 4.5 NM from STG VOR)
AOE
792 H90/5R-23L (5) (S-54, T-78, T-126)* BL4, 6, 8A, 10
S5 F5, JP1, 4 U2 VASI: Rwy 23R RVR: Rnwy 5R
FSS: CLEVELAND on Fld
REMARKS: *(S-125, T-188, TT-338) avbl rnwy 9-27.
CLEVELAND TOWER 119.9 126.2 122.7R
CLRNC DEL 127.4
CLEVELAND GND CON 121.7
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2] 110.7T
109.9T CLEVELAND DEP CON 121.0
ASR Rnwys 5R, 5L, 9, 18R, 18L, 23R, 23L, 27, 36R, 36L
Ceiling 500 Vsby 1½ mi Min Alt 1292
ILS 109.9 I-CLE Apch Brng 054° 110.7 I-CEE Apch
Brng 277° Unusable below 1030' MSL
VHF/DF available, contact tower
REMARKS: [1]270°-089° [2]090°-269°
VOT: 110.4

COLUMBUS MUNI *IFR* 6 E (276° 5.4 NM from CM LOM)
816 H107/10R-28L (5) (S-100, T-200, TT-370)* BL4, 6, 8,11
S5 F5, JP1, 4 U2 RVV: Rnwy 10L
REIL: Rnwys 10R, 28R FSS: COLUMBUS on Fld
REMARKS: *(S-180, T-200, TT-400) avbl rnwy 10L-28R.
Due non-vsby some areas of fld, ctc twr.
TOWER 126.2 121.1 109.1T 3023.5R
CLRNC DEL 121.3 GND CON 121.9
RADAR SERVICES:
APP CON 119.0 126.2 125.4 122.5R 109.5T
3023.5R DEP CON 120.5 126.2
ASR Rnwys 10R, 10L, 13, 19, 23, 28R, 28L, 31 Ceil 500
Vsby 1 mi Min Alt 1316. Rnwys 1, 5 Ceil 600 Vsby 1
mi Min Alt 1416
ILS 109.1 I-CBP Apch Brg 096° 109.5 I-CMH Apch Brg
276°
VHF/DF available, contact tower
VOT: 111.0

DAYTON
JAMES M COX-DAYTON MUNI *IFR* 9 N (236° 3.9 NM from TPC RBn.)
1008 H70/6-24 (2) (S-120, T-180, TT-400) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 6 REIL: Rnwy 24
FSS: DAYTON on Fld
REMARKS: P-line SE.
DAYTON TOWER 119.5 126.2 122.5R
CLRNC DEL 125.2
DAYTON GND CON 121.9
RADAR SERVICES: (BCN)
DAYTON APP CON 118.0 122.7R 111.6T 110.3T
DAYTON DEP CON 119.9
ILS 110.3 I-DAY Apch Brg 056°
VOT: 111.0

MANSFIELD MUNI 3 N (131° 4.1 NM from MFD VOR)
1296 H90/14-32 (2) (S-75, T-100, T-) BL4, 6, 8, S5
F4, JP4 U2 RVV: Rnwy 32 FSS: MANSFIELD on Fld
TOWER 119.3 122.5R 110.5T GND CON 121.9
APP CON 124.7 122.5R 110.5T 108.8T
ILS 110.5 I-MFD Apch Brg 320°
REMARKS: ILS shut down USN until further notice

OHIO—Continued

SPRINGFIELD MUNI *IFR* 5 S (237° 2.6 NM from SGH RBn
1049 H90/5-23 (3) (S-190, T-200, TT-380) BL4 S5
F4, JP4 U2 FSS: DAYTON (LC FA
TOWER [2]120.7 126.2 GND CON 121.7
RADAR SERVICES: (BCN)
DAYTON APP CON [1]118.4 DAYTON DEP CON
134.1
REMARKS: [1]All IFR tfc lndg this area call DAYTON APP CON. [2]Oper 1245-2130Z dly clsd hol.

TOLEDO, EXPRESS *IFR* 9 SW (320° 10.5 NM from VWV VOR
684 H87/7-25 (2) (S-107, T-163, TT-287) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 7 FSS: FINDLAY (LC
TOLEDO TOWER 118.1 126.2 122.5R 109.7T
TOLEDO GND CON 121.9
RADAR SERVICES: (BCN)
TOLEDO APP CON 123.8 128.0 122.5R 113.1T
109.7T TOLEDO DEP CON 119.2
ASR Rnwys 7, 16, 25, 34 Ceiling 400 Vsby 1 mi M-
1084
ILS 109.7 I-TOL Apch Brg 069°

WILLOUGHBY
LOST NATION *IFR* 2 N (LNN RBn on field)
626 H50/9-27 (3) BL4, 11 S5 F4, JP4
REIL: Rnwys 5, 23 FSS: CLEVELAND
REMARKS: Fee. Rnwy 9, 27 and 36 restricted by pole/tree-glide angle 4 to 1 and less.
TOWER[3] 120.7 122.5R
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 0230-1430Z

YOUNGSTOWN MUNI *IFR* 10 N (183° 4.1 NM from YNG VOR
1196 H75/14-32 (3) (S-116, T-160, TT-270) BL4, 6, 8 S5
F4 U2 RVV: Rnwy 32 FSS: YOUNGSTOWN on F
REMARKS: Rnwy 5 apch restricted by brush-glide angle 1 to 1.
TOWER 119.5 126.2 122.5R GND CON 121.9
APP CON 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320°
VHF/DF available, contact tower.

OKLAHOMA

MUSKOGEE
DAVIS FLD *IFR* 6 S (MKO RBn on field)
610 H72/13-31 (2) (S-60, T-160, TT-) BL6, 8
FSS: TULSA
TOWER[1] 119.2 126.2
REMARKS: [1]1430-2230Z

AIRPORT FACILITY DIRECTORY

OKLAHOMA–Continued

HOMA CITY
EY POST *IFR* 7 NW 1040 8.1 NM from OKC VOR
3 H54 17-35 (3) BL4 S5 F4, JP4 U2
FSS: OKLAHOMA CITY on Fld
EMARKS. Rgt tfc rnwys 12 and 17.
OWER 119.7 122.5R GND CON 121.7
ADAR SERVICES. (BCN.
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5
OKLAHOMA CITY DEP CON 121.1
EMARKS: [1]Oper 1200-0400Z.

HOMA CITY
L ROGERS WORLD *IFR* 6 SW (097° 8.1 NM from OKC VOR)
34 H98 17-35 (3) (S-120, T-160, TT) BL4, 6, 8 S5
S, JP1, 4 U2 VASI: Rnwy 17 RVV: Rnwy 35
FSS: OKLAHOMA CITY (DL)
EMARKS Rnwy 3-21 and txwy (C-1) W side rnwy 3 restricted
5000 lbs or less
OWER 118.3 126.2R 122.7R GND CON 121.9
ADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R
120.5 OKLAHOMA CITY DEP CON 121.1
ASR Rnwy 17, 35 Ceiling 400 Vsby 1 mi Min Alt 1684
LS 109.9 I-OKC Apch Brg 350
VOT: 108.8

SA INTL *IFR* 5 NE (259° 4.3 NM from TUL VOR)
H100 17L-35R (5) (S-200, T-200, TT-400) BL4, 6, 8
5 F5, JP1, 4 U2 VASI: Rnwy 17L RVR: Rnwy 35R
FSS: TULSA on Fld
EMARKS: Rgt tfc rnwys 17 R, 21R. Rnwy 35L thsld dis-
pl-d 510', 3690' avbl for tkof.
OWER 118.7 126.2 122.5R
CLRNC DEL 124.0 GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 119.1 122.5R 110.3T DEP CON 120.7
TFC INFO Ctc APP CON on 119.1 25 mi out
ASR Rnwys 17L, 26[1], 35R Ceiling 400 Vsby 1 mi
Min Alt 1074
LS 109.7 I-DWE Apch Brg 174° 110.3 I-TUL Apch Brg
354 BC unusable ILS's not operd simultaneously
EMARKS: [1]500-1 required when apch is made until psn is
estab over 910 stack 3 mi E.
VOT. 109.0

OREGON

ENE
HLON-SWEET FLD *IFR* 7 NW (EUG VOR on field)
55 H55 16-34 (2) (S-100, T-200, TT-380) BL4, 6, 8 S5
4, JP1 U2 RVV: Rnwy 16 FSS: EUGENE on Fld
EMARKS: Rnwy lgts on req thru FSS.
EUGENE TOWER 118.9 122.5R
EUGENE APP CON 118.9 122.5R 112.9T
EUGENE GND CON 121.9
LS 109.5 I-EUG Apch Brg 159°

OREGON–Continued

KLAMATH FALLS
KINGSLEY FLD *IFR* 4 SE (LMT VOR on Fld)
40[illegible] H[illegible] 14-32 (3 (S-100, T-200, TT-380) BL4, 6, 8 S5
F4, JP1 U2 FSS: KLAMATH FALLS on Fld
TOWER 118.5 126.2 122.5R 269T
GND CON 121.9
KLAMATH APP CON 118.5 126.2 122.5R 115.9T
242T
ILS 109.5 I-LMT Apch Brg 318

MEDFORD MUNI *IFR* 2 N (145° 6.3 NM from MFR VOR)
1330 H54 14-32 (2) (S-80, T-120, TT-180) BL4, 6, 8 S5
F4, JP4, 5 U2 RVV: Rnwy 14 FSS: MEDFORD on Fld
TOWER 118.3 126.2 122.5R 119.8 278T
GND CON 121.9
APP CON 118.3 126.2 122.5R 278T 263T
ILS 110.3 I-MFR Apch Brg 139°
VHF DF available, contact tower.

PENDLETON MUNI *IFR* 2 NW (071° 3.6 NM from PDT VOR)
1493 H63 7L-25R (4) (S-75, T-100, TT-) BL4, 6, 8 S5
F4 U2 RVV: Rnwy 25 FSS: PENDLETON on Fld
REMARKS: Rnwy 25L threshold displaced 821' W. 2029 ft
avbl lndg rnwy 25L, 7R-25L daylite operns only lgt planes.
TOWER 118.7 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.7 114.7T 3023.5Rx 341T
ILS 110.3 I-PDT Apch Brg 250°

PORTLAND INTL *IFR* 4 NE (159° 9.2 NM from PDX VOR)

23 H88 10R-28L (3) (S-100, T-200, TT-400) BL4, 6, 8A, 10
S5 F5, JP4 U2 RVV: Rnwy 28R RVR: Rnwy 10R
FSS: PORTLAND on Fld
TOWER 118.7 126.2 122.7R CLRNC DEL 119.0
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1[2] 126.2 122.5R 119.8[3] 109.9T
DEP CON 124.9
TFC INFO Ctc APP CON
PAR Rnwy 10R Ceiling 200 Vsby ½ mi Min Alt 223
ASR Rnwys 10R[1], 28R Ceiling 700 Vsby 1 mi Min Alt
723
ILS 109.9 I-PDX Apch Brg 098° BC restd 111.3 I-IAP
Apch Brg 278°
VHF DF available, contact tower.
REMARKS: [1]Min alt over 3-mi radar fix inbnd on final, 900.
[2]North [3]South
VOT: 111.0

SALEM-MCNARY FLD *IFR* 1 SE (309° 4 NM from SL LOM)
207 H50 13-31 (2) (S-66, T-88, TT-75) BL4, 6 S5 F4
U1 RVV: Rnwy 31 FSS: PORTLAND (DL)
REMARKS: Rnwy 16-34 unlgtd clsd daily fm 30 mins before SS
til 30 mins after SR and when weo is below VFR mins.
ILS 110.3 I-SLE Apch Brg 309°

AIRPORT/FACILITY DIRECTORY

OREGON—Continued

TROUTDALE Adj NW (124° 13.6 from PDX VOR)
36 H46/7-25 (1) (Max-10) BL4 S5 F4 U2
RVV: Rnwy 7 FSS: PORTLAND (DL)
REMARKS: Rnwy 7 threshold displaced 400 ft E. 4241 ft avbl lndg rnwy 7. Rnwy 25 threshold displaced 500 ft W. 4141 ft avbl lndg rnwy 25.
TOWER 120.5 122.5R GND CON 121.7

PENNSYLVANIA

ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE (180° 4.1 NM from ABE VOR)
388 H62/6-24 (4) (S55, T-76, TT-125) BL4, 6, 8 S5 F5 U2 RVV: Rnwy 6 FSS: ALLENTOWN on Fld
REMARKS: 5210' avbl lndg rnwy 24. Rnwy 14-32 open for ngt opern 2415' btn threshold lgts plus 175' of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
ALLENTOWN TOWER 120.5 122.5R 233T
CLRNC DEL 121.9
ALLENTOWN GND CON 121.9
ALLENTOWN APP CON 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061°

ERIE
PORT ERIE *IFR* 5 SW (059° 6 NM from ERI VOR)
732 H50/6-24 (3) (S-65, T-102, TT-190) BL4, 6, 8, 11 S5 F4, JP1 U2 RVV: Rnwy 24 REIL: Rnwy 24 FSS: ERIE on Fld
TOWER 118.1 122.5R 110.3T GND CON 121.9
APP CON 119.0 122.5R 110.3T
ILS 110.3 I-ERI Apch Brg 059° BC unusable
REMARKS: To be decomsnd.

HARRISBURG-YORK STATE *IFR* 3 S (108° 7.5 NM from HAR VOR)
347 H50/8-26 (3) (S-65, T-105, TT-185) BL4, 6, 8 S5 F4, JP1 U2 RVV: Rnwy 8 FSS: HARRISBURG on Fld
REMARKS: Rnwy 8 blkd. Rgt tfc rnwys 20 & 26. wt limit 130,000 lbs.
HARRISBURG TOWER 119.5 126.2 122.5R 118.8 109.1T
HARRISBURG GND CON 121.9
HARRISBURG APP CON 120.9 126.2 122.5R 109.1T
HARRISBURG DEP CON 118.8
ASR Rnwys 8, 30 Ceiling 1100 Vsby 2 mi Min Alt 1447. Rnwy 26 Ceiling 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I-HAR Apch Brg 079° BC unusable

PHILADELPHIA
NORTH PHILADELPHIA *IFR* 10 NE (PNE VOR on FLD)
120 H50/6-24 (2) (Max-30) BL4, 8, 12 S5 F4, JP1 U2 FSS: PHILADELPHIA on Fld
REMARKS: Rnwy 6 apch restricted by poleline.
TOWER 121.3 126.2 122.5R 112.0T
GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089° [2]090°-269°

PENNSYLVANIA—Continued

PHILADELPHIA INTL *IFR* 5 SW (085° 5.9 NM from PH LOM 14 H95/9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A S
F5, JP1, 4, 5 U2 RVR: Rnwy 9
FSS: PHILADELPHIA
REMARKS: Rnwy 22 & 27 apch restricted by fence-glide arp 1 to 1. Ctn-const vic rnwy 27.
TOWER 118.5 122.7R CLRNC DEL 127.7
GND CON 121.9
RADAR SERVICES:
APP CON 127.2[1] 123.8[2] 122.7R
DEP CON 119.0[1] 128.55[2]
PAR Rnwy 9 Ceiling 200 Vsby ½ mi Min Alt 2
ASR Rnwys 9, 17, 27, 35 Ceiling 500 Vsby 1 mi Min Alt 514
ILS 109.3 I-PHL Apch Brg 085° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°
VOT: 111.0

PITTSBURGH
ALLEGHENY COUNTY *IFR* 4 S (052° 6.4 NM from PIT VOR 1252 H55/9-27 (3) (S-70, T-120, TT-210) BL 6, 8, 11 S
F5, JP5 U2 REIL: Rnwy 9, 23 and 30
FSS: PITTSBURGH
TOWER 121.1 126.2 122.5R 109.1T GND CON 121.
RADAR SERVICES:
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.
PITTSBURGH DEP CON 125.9
ILS 109.1 I-AGC Apch brg 275° BC unusable
REMARKS: [1]270°-089° [2]090°-269°

GREATER PITTSBURGH *IFR* 12 NW (IRL VOR on FLD)
1203 H105/10L-28R (4) (S-120, T-200, TT-400) BL4, 6, 8A, 10, 14, 15 S5 F5, JP1, 4 VASI: Rnwy 28L RVV: Rnwy 10L REIL: Rnwy 32 FSS: PITTSBURGH
REMARKS: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491 ft W. 7509 ft avbl lndg rnwy 28L US Customs lndg rts arpt.
PITTSBURGH TOWER 119.1 126.2 122.7R 110.3T
CLRNC DEL 121.3 PITTSBURGH GND CON 121.
RADAR SERVICES: (BCN)
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.
PITTSBURGH DEP CON 125.9
TFC INFO Ctc Radar APP CON on 123.6 when approaching fm NW & NE, and on 118.7 fm SE & SW.
PAR Rnwy 28L Ceiling 200 Vsby ½ mi Min Alt 1403
ASR Rnwys 5, 10R, 14, 23, 28R, 28L, 32 Ceil 500 Vsby 1 mi Min Alt 1703. Rnwy 10L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° 111.7 I-LXB Apch Brg 097° BC unusable
VHF/DF available, contact tower.
REMARKS: 270°-089° [2]090°-269°. IFF svc avbl.
VOT: 111.2

PENNSYLVANIA–Continued

NG
IERAL SPAATZ FIELD *IFR* 2 NW (001 3.9 NM from RD
:W
:: H51 18 36 (3) (S-30 T-45, TT-175) BL4, 6, 7, 12 S5
4, JP4 U2 FSS: HARRISBURG (LC 376 3045)
EMARKS Rgt tfc rnwy 5, 13 and 36.
EADING TOWER 119.9 126.2 122.5R 109.5T
READING GND CON 121.9
READING APP CON 119.9 126.2 122.5R 109.5T
S 109.5 I-RDG Apch Brg 001° BC unusable
HF DF available, contact tower.

.S-BARRE-SCRANTON *IFR* 9 NE (043° 3.9 NM from AV LOM)
:5 H52 4-22 (3) (S-90, T-145, TT-240) BL4-6, 8A, 9
5, JP4 RVV: Rnwy 4 FSS: WILKES-BARRE on Fld
EMARKS: Rgt tfc rnwys 10, 16, 22, 18. Lndg fee except for
pvt owned acft.
AA DEP PROC: Rnwy 16, 22 Right hand tfc pattern.
ILKES-BARRE TOWER 120.1 122.5R 109.9T
ILKES-BARRE GND CON 121.9
ADAR SERVICES:
WILKES-BARRE APP CON 124.5 122.5R 109.9T
WILKES-BARRE DEP CON 126.3
ASR Rnwy 4 Ceil 1000 Vsby 2 mi Min Alt 1956. Rnwy
10 Ceil 900 Vsby 1½ mi Min Alt 1856. Rnwy 22 Ceil
800 Vsby 1½ mi Min Alt 1756
-S 109.9 I-AVP Apch Brg 043° BC Unusable

:AMSPORT-LYCOMING CO *IFR* 4 E (285° 6.1 NM from IP
NG.
28 H50 9-27 (3) (S-44, T-70, TT-110) BL4, 6, 8 S5
4, JP1 FSS: WILLIAMSPORT on Fld
EMARKS: Flashing amber indicating rgt turns for lndg
rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 8000
bs and under. Rgt tfc rnwy 33, 27, 30. Rnwy 27 apch restrict-
ed by pole-glide angle 7 to 1. Rnwy 15 apch restricted by
poleline-glide angle 1 to 1.
ILLIAMSPORT TOWER 119.1 122.5R
WILLIAMSPORT GND CON 121.9
WILLIAMSPORT APP CON 124.9 122.5R
-S 110.1 I-IPT Apch Brg 266° BC Unusable

RHODE ISLAND

/IDENCE
EEN *IFR* 6 S (PVD VOR on fld)
6 H54 5R-23L (4) (S-90, T , TT) BL4, 6, 8 S5
5, JP1 U2 RVV: Rnwy 5R FSS: PROVIDENCE on Fld
EMARKS: Fee. No mult engine lndgs 5L, no tkofs 23R.
OWER 118.7[1] 120.7[2] 126.2 122.5R 109.3T 368T
CLRNC DEL 121.9 GND CON 121.9
ADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
-S 109.3 I-PVD Apch Brg 046° BC Unusable
EMARKS: [1]To be decomsnd. [2]To be comsnd.

SOUTH CAROLINA

CHARLESTON AFB MUNI *IFR* 9 NW (CHS VOR on fld)
45 H90 15-33 (2) (S-50, T-155, TT-305) BL4, 6, 8 S5
F5, JP5 U2 VASI: Rnwys 15, 21, & 33
RVR: Rnwy 15 FSS: CHARLESTON on Fld
TOWER 126.2 122.5R 121.0 113.5T 109.7T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES.
APP CON 119.3 118.5 113.5T 109.7T
DEP CON 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445
ILS 109.7 I-CHS Apch Brg 149° BC Unusable
VOT: 111.0

COLUMBIA
OWENS FIELD 1 SE (024° 8 NM from CAE VOR)
203 H36 15-33 (2) (S-150) L4 F4 U1 FSS: FLORENCE
REMARKS: Rgt tfc SE, NE. Clsd ngts to transient civ acft due
unlgtd obstns. Rnwy 33 apch restricted by poleline-glide
angle 5 to 1. Rnwy 15 & 25 apch restricted by roads-glide
angle 0 to 1. Rnwy 7 apch restricted by poleline-glide angle
0 to 1.
TOWER[1] 126.2
COLUMBIA APP CON 118.2 122.5R 110.3T 227T
REMARKS: [1]Oper 1200-2400Z daily. Adv svc other hrs.

GREENVILLE MUNI DOWNTOWN *IFR* 2 E (002° 3.6 NM from
GR LOM)
1047 H54 18-36 (3) (S-40, T- , TT-) BL4, 6 S5
F4, JP1 U2 FSS: GREER (LC 239-3738)
REMARKS: Rgt tfc rnwys 18, 27, 23.
TOWER 119.9 126.2 122.5R 109.7T 391T
GND CON 121.9
RADAR SERVICES:
APP CON 118.0 126.2 124.3 122.5R 119.4 109.7T
DEP CON 118.8
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447
ILS 109.7 I-GRL Apch Brg 002° BC unusable

GREER
GREENVILLE-SPARTANBURG *IFR* 3 S (033° 5.2 NM from
GS LOM)
961 H76 3-21 (2) (MAX-60) BL6, 8, A, 9, 14, 15 S5 F5,
JP5 U2 RVV: Rnwy 3 FSS; GREER on Fld
REMARKS: Fee commercial only.
GREER TOWER 120.1 126.2 122.7R 115.7T 109.3T
209T
GREER GND CON 121.8

AIRPORT/FACILITY DIRECTORY

SOUTH CAROLINA–*Continued*

GREENVILLE-SPARTANBURG–(Continued)
RADAR SERVICES:
GREENVILLE APP CON 118.0 126.2 124.3 122.5R 119.4 109.7T
GREENVILLE DEP CON 118.8
ILS 109.3 I-GSP Apch Brg 033°

SPARTANBURG DOWNTOWN MEMORIAL *IFR* 2 SW (195° 6.9 NM from SPA VOR)
816 H52/4-22 (3) (S-30, T- , TT-) BL4, 6 S5
F5, JP1-5 FSS: GREER (LC 585-5470)
REMARKS: Unlgtd wind cone.
TOWER[1] 118.3 126.2 122.5R 317T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES:
GREENVILLE APP CON 124.3
GREENVILLE DEP CON 118.8
REMARKS: [1]Oper 1100-0300Z.

SOUTH DAKOTA

SIOUX FALLS
JOE FOSS FIELD *IFR* 2 NW (147° 4.1 NM from FSD VOR)
1428 H90/3-21 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwys 3, 21 FSS: HURON on Fld
REMARKS: Rnwy 9-27 restricted of acft over 30,000 lbs, rnwy 3-21 & 15-33 rest to acft over 120,000 lbs.
TOWER 118.3 122.5R GND CON 121.9
VFR ADV Ctc APP CON on 125.8 aprx 25 mi out
APP CON 125.8 122.5R 115.0T 109.9T 245T
ILS 109.9 I-FSD Apch Brg 026°

TENNESSEE

BRISTOL
TRI-CITY MUNI *IFR* 12 SW (224° 6 NM from TR LOM)
1519 H66/4-22 (2) (S-90, T-120, TT-190) BL6, 8 S5 F5, JP1 U2 RVV: Rnwy 22 FSS: TRI-CITY on Fld
REMARKS: Rnwy 9-27 restricted to acft over 30,000 lbs GWT.
TOWER 119.5 126.2 122.5R 114.6T 109.9T
GND CON 121.9
APP CON 125.7 126.2 122.5R 114.6T
DEP CON 119.5 126.2
ILS 109.9 I-TRI Apch Brg 224° BC unusable. Localizer unusable MM to runnway; unusable above 6000' MSL.

CHATTANOOGA
LOVELL FIELD *IFR* 5 E (332° 4.9 NM from CHA VOR)
682 H62/1-19 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F5, JP4, 5 U2 VASI: Rnwy 1 RVV: Rnwy 19
FSS: CROSSVILLE (LC AM 7-5343)
CHATTANOOGA TOWER 118.3 126.2 109.5T 278T
CHATTANOOGA GND CON 121.9
VFR ADV Ctc APP CON on 125.1 mc 25 mi out.
CHATTANOOGA APP CON 125.1 126.2 115.8T 109.5T
ILS 109.5 I-CHA Apch Brg 196°

TENNESSEE–*Continued*

KNOXVILLE
McGHEE-TYSON *IFR* 11 S (221° 6.6 NM from TYS VOR)
989 H90/4L-22R (3) (S-75, T-90, TT-200) BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 4L FSS: KNOXVILLE
REMARKS: Rgt tfc rnwys 4R & 22R.
KNOXVILLE TOWER 118.7 126.2 122.5R 116.4T
KNOXVILLE GND CON 121.9
RADAR SERVICES:
KNOXVILLE APP CON 123.9 122.5R 116.4T
KNOXVILLE DEP CON 120.2
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389. Rnwy 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS 110.3 I-TYS Apch Brg 045° BC unusable.
VHF/DF available, contact tower.
REMARKS: VOT: 112.0

MEMPHIS METROPOLITAN *IFR* 3 S (287° 3 NM from MEM VOR)
331 H89/17-35 (4) (S-60, T-200, TT-400) BL4, 6, 8A, 15 S5 F5, JP5 U2 VASI: Rnwy 27
RVR: Rnwy 9 FSS: MEMPHIS
REMARKS: Rnwys 3-21, 17-35 & 14-32 restricted to 100,000 lbs GWT. Rnwy 9-27 restricted to 50,000 lbs single wheel 3816 ft avbl lndg & tkots both direction rnwy 14-32.
TOWER 126.2 122.5R 118.3 115.5T 109.5T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T DEP CON 119.7
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731
ILS 109.5 I-MEM Apch Brg 087° 110.5 I-TSE Apch Brg 354° BC unusable
VHF/DF available, contact tower
REMARKS: [1]South apch [2]North apch. IFF/SIF svc avbl.
VOT: 111.0

NASHVILLE METROPOLITAN *IFR* 5 SE (312° 4.5 NM from BNA VOR)
597 H80/13-31 (3) (S-76, T-130, TT-220) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 2L FSS: NASHVILLE
REMARKS: Rnwy 2R-20L-240' overrun N end; 1185' S end
BERRY TOWER 126.2 122.5R 119.1 109.9T
BERRY GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 120.6 122.5R 109.9T
DEP CON 123.7
TFC INFO Ctc APP CON on 120.6 25 mi out.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997
ILS 109.9 I-BNA Apch Brg 015°
VHF/DF available, contact tower
REMARKS: [1]Maint 1200 til 2 mi fm end of rnwy on final to rnwy 20R.
VOT: 111.0

AIRPORT/FACILITY DIRECTORY

TEXAS

NE MUNI *IFR* 3 SE (102° 9.5 NM from ABI VOR)
[illegible] H60 17-35 (2) (MAX-30) BL4, 6, 8 S5 F4 U2
VV: Rnwy 35 FSS: ABILENE on Fld
EMARKS: NW-SE taxwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI APP CON 124.1 mc transmitt 122.5 and receive 124.1 mc 20 mi out.
OWER 120.1 122.7R 110.3T 126.2 278T
GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 126.5 124.1 121.3 134.1 110.3T 113.7T
109.2T DEP CON 125.0
TFC INFO Ctc APP CON 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
S 110.3 I-ABI Apch Brg 350°

LLO AFB MUNI *IFR* 8 E (210° 4.5 NM from AMA VOR)
07 H135 3-21 (2) (S-65, T-330, TT-470) BL6, 8 S5
5, JP1 VASI: Rnwys 3, 21 RVV: Rnwys 3, 21
FSS: AMARILLO on Fld
EMARKS: Rgt tfc rnwy 3. Rectangular tfc ptn 5100 ft MSL. Overhead tfc ptn 5400 ft MSL. Rnwy 13-31 lmtd to 33,000 cs GMT.
OWER 126.2 122.5R 118.3 GND CON 121.9
ADAR SERVICES:
APP CON 121.1 126.2 124.8 122.5R 117.2T 110.3T
DEP CON 119.5
TFC INFO Ctc APP CON 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4007.
Rnwys 13, 31 Ceil 500 Vsby 1 1/2 mi Min Alt 4107
-S 110.3 I-AMA Apch Brg 035°

N
LLER MUNI *IFR* 2 NE (175° 5.1 NM from AUS VOR)
31 H73 12R-30L (5) (S-30, T-40, TT-) BL4, 6, 8 S5
5, JP5 U2 RVV: Rnwy 30L FSS: AUSTIN on Fld
EMARKS: Rgt rnwys 12R, 16R, 30R & 21. Rnwy 34L apch restricted by trees-glide angle 0 to 1. Rnwy 12R threshold displaced 900 ft SE. 6400 ft avbl lndg rnwy 12R. Rnwy 16R threshold displaced 600 ft S. 4406 ft avbl lndg rnwy 16R.
USTIN TOWER 118.3 126.2 122.5R 109.5T
AUSTIN GND CON 121.9
ADAR SERVICES: (BCN)
AUSTIN APP CON 124.9 125.1 122.7R 112.5T
AUSTIN DEP CON 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
-S 109.5 I-AUS Apch Brg 305°

MONT
FERSON CO *IFR* 9 SE (056° 4.6 NM from BPT VOR)
16 H57 11-29 (3) (S-65, T-91, TT-170) BL4, 6, 8A, 9 S3
4, JP1 U2 RVV: Rnwy 11 REIL: Rnwy 16
FSS: BEAUMONT on Fld
OWER 119.5 122.5R GND CON 121.9
BEAUMONT APP CON 121.3 122.5R 114.9T
-S 109.5 I-BPT Apch Brg 113°

TEXAS—Continued

BROWNSVILLE
RIO GRANDE VALLEY INTL *IFR* 4 E (242° 2.3 NM from BRO VOR: AOE
22 H57 13R-31L (6) (S-35, T-58, TT-108) BL4, 6, 7 S5
F5, JP1, 4 FSS: BROWNSVILLE on Fld
REMARKS: Rnwy 4-22 restricted to 10,000 lbs or less. Rnwy lgts on req after 2400. CTN-constr vic fld. Rnwy 31L apch restricted by brush-glide angle 0 to 1. Rnwy 31R apch restricted by trees glide angle 0 to 1. Rnwy 35R apch restricted by trees-glide angle 1 to 1.
BROWNSVILLE TOWER 118.1 126.2 122.5R 278T
BROWNSVILLE GND CON 121.9
BROWNSVILLE APP CON 119.5 126.2 118.1 388T
ILS 110.3 I-BRO Apch Brg 173°

COLLEGE STATION
EASTERWOOD FIELD *IFR* 2 SW (098° 2.5 NM from CLL VOR)
319 H51 10-28 (3) (S-30, T-40, TT-) BL4 S3 F4
FSS: COLLEGE STATION on Fld
REMARKS. Services offered daylgt hrs only. Rnwy 28 apch restricted by trees-glide angle 0 to 1.
TOWER[1] 118.5 126.2 122.5R GND CON 121.9
REMARKS: [1]Oper 1200-0400Z dly.

CORPUS CHRISTI INTL *IFR* 5 W (191° 7.9 NM CRP VOR)
43 H56 13-31 (2) (S-76, T-102, TT-162) BL4, 6, 8 S5
F4, TP-1 JP4 U2 RVV: Rnwy 13
FSS: ALICE (LC TU 4-5712)
REMARKS: Amber flashing lgt for rgt ptn. US Customs-Indg rts arpt 8 AM to 5 PM Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
TOWER 126.2 122.5R 120.9 118.3 GND CON 121.9
RADAR SERVICES:
APP CON 118.3 123.7 122.5R
DEP CON 125.3
ILS 110.3 I-CRP Apch Brg 127°

DALLAS
ADDISON *IFR* 9 N (ADS VOR on fld)
637 H45 15-33 (2) BL4 S5 F5, JP1 U2
FSS: DALLAS (LC FL 7-2825)
REMARKS: Rnwy 21 apch restricted by poleline-glide angle 3 to 1.
TOWER 121.1 122.7R GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 119.8[2] 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126°

DALLAS
LOVE FIELD *IFR* 5 NW (178° 7.1 NM from ADS VOR)
485 H77 13-31 (2) (S-100, T-150, TT-330) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 U2 VASI: Rnwy 31 REIL: Rnwy 31
RVR: Rnwy 13 FSS: DALLAS on Fld
REMARKS: Rnwy 36 apch restricted by poleline-glide angle 14 to 1. Ctc apch ctl for tfc info. 3500 ft N end rnwy 18 avbl for S lndgs & tkofs. US Customs lndg rts arpt 1230 am - 230 pm Mon-Fri, 1230 am - 430 pm Sat. Req arrival notice be forward customs when filing flt plan in Canada, Mexico or Cuba. Ctn-birds vcnty arpt.
TOWER 126.2 122.5R 118.7 278T

AIRPORT/FACILITY DIRECTORY

TEXAS–Continued

LOVE FIELD–(Continued)
CLRNC DEL 121.6 GND CON 121.9
RADAR SERVICES:
DALLAS APP CON 125.2 123.7[2] 122.5R 119.8[3] 111.4T 110.3T
DALLAS DEP CON 119.5
TFC INFO Ctc APP CON 25 mi out
PAR Rnwys 13 Ceil 200 Vsby 1/2 mi Min Alt 685
ASR Rnwys 13, 31[1] Ceil 400 Vsby 1 mi Min Alt 885
ILS 110.3 I-DAL Apch Brg 127°
VHF/DF available, contact tower
REMARKS: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi fm apch end of rnwy 31. [2]127°-307° [3]308°-126°. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas APP CON on 123.7. Acft approaching from N and E side of lclzr crs should ctc Dallas APP CON on 119.8.
VOT: 111.0

DALLAS
RED BIRD *IFR* 6 SW (347° 1.1 NM from DCV RBN)
659 H44/13-31 (2) BL4 S5 F4, JP1 U2
FSS: DALLAS (LC FL 7-2825)
TOWER[3] 120.3 122.6R 248T GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126° [3]Oper 120-0400Z.

EL PASO INTL *IFR* 4 NE (257° 3.8 NM from ELP VOR) AOE
3956 H120/4-22 (3) (S-95, T-156, TT-280) BL4, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 22 FSS: EL PASO on Fld
REMARKS: Rnwy 4 threshold displaced 1000 ft NE. 11,000 avbl lndg rnwy 4. Rnwy 17 threshold displaced 395 ft S. 6606 ft avbl lndg rnwy 17.
TOWER 118.3 126.2 122.5R 224T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
DEP CON 119.1
ASR Rnwys 22, 26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS 109.5 I-ELP Apch Brg 218°
REMARKS: VOT: 111.0

FORT WORTH
GREATER SOUTHWEST INTL *IFR* 16 NE (GSW VOR on fld)
568 H90/17-35 (2) (S-120, T-180, TT-400) BL4, 6, 8 S3
F5, JP5 RVR: Rnwy 13 FSS: FORT WORTH (LC MA 4-8444)
REMARKS: 3100' rnwy 17 clsd-constrn. 5900' avbl lndg length.
SOUTHWEST TOWER 118.9 126.2 122.7R 317T
SOUTHWEST GND CON 121.8
RADAR SERVICES:
FORTH WORTH APP CON 118.1 126.2 122.7R 119.6 109.5T
FORT WORTH DEP CON 123.9 122.7R
TFC INFO Ctc APP CON 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I-GSW Apch Brg 129°
VHF/DF available, contact tower
REMARKS: VOT: 111.8

TEXAS–Continued

FORT WORTH
MEACHAM FIELD *IFR* 5 N (177° 2.1 NM from FTW RBn)
692 H52/17-35 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
F5, JP5 U2 FSS: FORT WORTH on Fld
REMARKS: Rnwy 31 apch restricted by poleline-glide angle to 1.
TOWER[1] 126.2 122.7R 118.3 GND CON 121.9
RADAR SERVICES:
FORT WORTH APP CON 119.6 126.2 122.7R 118.1 109.5T
FORT WORTH DEP CON 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174°
REMARKS: [1]Oper 1300-0500Z.
VOT: 108.2

GREENVILLE
MAJORS FIELD 4 SE (GVT VOR on fld)
544 H80/17-35 (3) (S-80, T-140, TT-220) BL4[1] S5 F4
FSS: DALLAS
REMARKS: Ngt lndg not advisible. Rnwy lgts on first 3500' rnwy 35 only, remainder lgtd smudge dots prior reg. S 3300' rnwy 17 lgtd.
TOWER[1] 121.3 122.5R
REMARKS: [1]Oper 1330-2200Z excp Sat & Sun.

HOUSTON INTL *IFR* 8 SE (HOU VOR on fld)
50 (H76/3-21 (3) (S-100, T-150, TT-270) BL4, 6, 8A S5
F5, JP4 U2 RVR: Rnwy 3 FSS: HOUSTON on Fld
REMARKS: US Customs lndg rts arpt 8 AM-5 PM Mon-Sat. Arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba.
TOWER 118.7 126.2 122.5R 119.1 3023.5R 278T
GND CON 121.9
RADAR SERVICES:
APP CON 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.5T
DEP CON 123.7 126.2 119.1
TFC INFO Ctc APP CON on 123.7 119.1 or 118.1 25 mi out.
ASR Rnwys 3, 12, 30 Ceil 400 Vsby 1 mi Min Alt 450. Rnwys 17, 35 Ceil 500 Vsby 1 mi Min Alt 550. Rnwy 21 Ceil 600 Vsby 1 mi Min Alt 650.
ILS 109.9 I-HOU Apch Brg 036°
VHF/DF available, contact tower.
REMARKS: [1]218°-008° [2]009°-217°
VOT: 111.0

JOHNSON CITY MUNI *IFR* 10 W (346° 2 NM from JCY RBN)
1515 H63/17-35 (1) L4, 11 F4 U1 REIL: Rnwy 35
FSS: AUSTIN
TOWER[1] 126.2
RADAR SERVICES:
AUSTIN APP CON 124.9 125.1 122.7R
AUSTIN DEP CON 120.8
REMARKS: [1]Weather and altimeter setting avbl when twr is oper.

LONGVIEW
GREGG COUNTY MUNI *IFR* 6 SE (125° 2.3 NM from GGG VOR)
365 H61/17-35 (3) (S-75, T-100, TT-) BL4, 6, 8 S5
JP1 U2 FSS: GREGG COUNTY on Fld
TOWER 119.7 122.5R GND CON
LONGVIEW APP CON 119.7 122.5R
ILS 109.5 I-GGG Apch Brg 126°

AIRPORT/FACILITY DIRECTORY

TEXAS-Continued

BOCK MUNI *IFR* 4 NE (111° 4.6 NM from LBB VOR)
3689 H85 17R-35L (4) (S-30, T-40, TT) BL4, 6, 8
S5 F5, JP1 U2 FSS: LUBBOCK on Fld
REMARKS: Rnwy 3-21 restricted to acft in excess of 60,000 lbs. Rnwy 12-30 restricted to 80,000 lbs gwt thof wt, except in emerg. Rnwy 35L threshold displaced 900 ft N. 7602 ft avbl lndg rnwy 35L. Rnwy 21 threshold displaced 300 ft SW. 3300 ft avbl lndg rnwy 21.
TOWER 119.9 126.2 122.5R
GND CON 121.9 APP CON 118.1 126.2 122.5R
110.8T 391T DEP CON 118.1
ILS 109.5 I-LBB Apch Brg 169°

LAND AIR TERMINAL *IFR* 8 SW (181° 3.4 NM from MAF VOR)
8370 H83 10-28 (4) (S-100, T-128, TT-280) BL4, 6, 8 S5
F5, JP2 U2 RVV: Rnwy 10 FSS: MIDLAND on Fld
REMARKS: Rnwy 34L threshold displaced 627 ft N 6902 ft avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698 ft NW. 7602 ft avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303 ft NE. 5197 ft avbl lndg rnwy 4.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 121.1 122.5R 114.8T 110.3T
ILS 110.3 I-MAF Apch Brg 103°
VHF DF available, contact tower

MINVIEW
ALE COUNTY *IFR* 1 S (023° 6 NM from PVW VOR)
3372 H52 4-22 (2) (S-30, T-40, TT) BL4 S5 F4 U2
FSS: LUBBOCK (LC CA 3-2148)
REMARKS: Rnwy 22 apch restricted by hangar-glide angle 2 to 1
TOWER [1]118.9 122.5R 233T GND CON 121.7
REMARKS: [1]Oper 1200-0400Z.

ANGELO
ATHIS FIELD *IFR* 7 SW (234° 1.8 NM from SJT VOR)
1915 H59 3-21 (3) (S-35, T-56, TT) BL4, 8 S5 F4
U2 RVV: Rnwy 3 FSS: SAN ANGELO on Fld
REMARKS: Rnwy 27 apch restricted by trees-glide angle 0 to 1. Rnwy 9-27 clsd to acft over 25,000 lbs gwt.
TOWER 118.3 122.5R GND CON 121.9
SAN ANGELO APP CON 118.3 122.5R 115.1T 109.7T
ILS 109.7 I-SJT Apch Brg 032°

ANTONIO INTL *IFR* 7 N (175° 6.3 NM from SAT VOR)
808 H85 12-30 (3) (S-76, T-115, TT-255) BL4, 6, 8A S5
F4, JP1 U2 RVV: Rnwys 3, 12 FSS: SAN ANTONIO on Fld
REMARKS: US customs lndg rts arpt 10 am-8 pm Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
TOWER 118.9 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 120.3 134.1 126.5 126.2R 122.5R 110.9T
109.7T DEP CON 123.9
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys[1] 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi
Min Alt 1208
ILS 110.9 I-ANT Apch Brg 123° BC unusable 109.7
I-SAT Apch Brg 032° VHF DF available, contact tower.
MARKS: [1]Rnwy 17, 35 restricted to 2 eng acft and sml
VOT: 110.4

TEXAS-Continued

SAN ANTONIO
STINSON FIELD *IFR* 5 SE (337° 4.5 NM from SSF VOR)
567 H49 9-27 (4) BL4 S5 F4
FSS: SAN ANTONIO (LC TA 6-6323)
REMARKS: All rnwy apchs restricted by trees-glide angle 1 to 1. Rgt tfc rnwys 9, 14, 17, 22. Tfc 800 ft abo terrain 1367' MSL
TOWER [1]119.5 122.7R GND CON 121.7
RADAR SERVICES:
SAN ANTONIO APP CON 120.3 134.1 126.5 126.2R
122.5R SAN ANTONIO DEP CON 123.9
REMARKS: [1]Oper 1300-0500Z.

TYLER
POUNDS FIELD *IFR* 4 W (127° 4.6 NM from TY LOM)
5544 H52 13-31 (3) (S-30, T-40, TT) BL4, 6, 8 S5 F4
U2 FSS: TYLER on Fld
REMARKS: Acft over 50,000 lbs restricted rnwy 4-22. Rnwy 17 threshold displaced 250 ft S. 4803 ft avbl lndg rnwy 17.
TOWER 120.1 122.5R GND CON 121.9
TYLER APP CON 124.1 122.5R 109.9T 320T
ILS 109.9 I-TYR Apch Brg 127°

WACO MUNI *IFR* 5 NW (141° 3 NM from ACT VOR)
5155 H57 18-36 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5 U2 RVV: Rnwy 18 FSS: WACO on Fld
REMARKS: Rnwy 18-36 clsd until abt Mar 65.
TOWER 119.9 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.3 134.1 125.3 122.7R 115.3T
DEP CON 125.7
ILS[1] 109.7 I-ACT Apch Brg 185°
REMARKS: [1]Localizer shut down til Mar.

WICHITA FALLS
SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5 N (082° 5.1 NM from SPS VOR)
1015 H131 15-33 (2) (S-65, T-300, TT-530) BL4, 6, 8 S5
F5, JP1, 4, 5 U2 VASI: Rnwys 15 & 33 RVV: Rnwys 15, 33 FSS: WICHITA FALLS on Fld
REMARKS: Overhead tfc ptn 2700 ft rectangular tfc ptn 2200 ft MSL. Rgt tfc rnwys 17 & 33.
TOWER 119.1 126.2 122.5R 278T
GND CON 121.9 WICHITA FALLS APP CON 118.2
122.5R 109.7T WICHITA FALLS DEP CON 118.2
ILS 109.7 I-SPS Apch Brg 328°
REMARKS: IFF/SIF svc avbl. Oper 1500-2400Z Mon-Fri excp holi.

UTAH

OGDEN MUNI *IFR* 3 SW (098° 3.7 NM from OGD VOR)
4455 H73 3-21 (3) (S-80, T-105, TT) BL4 S5 F4
U2 FSS: SALT LAKE CITY (LC EX 4-8712)
REMARKS: Rgt tfc rnwy 16, 21 & 35. Arrival acft ctc Hill AFB apch ctl.
TOWER [1]118.7 122.5R GND CON 121.7
RADAR SERVICES:
HILL APP CON 120.2 132.9 124.1 122.5R 121.1
HILL DEP CON 121.1 TFC INFO Ctc APP CON aprx 20 mi out. ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
REMARKS: [1]Oper 1300-0500Z.

AIRPORT/FACILITY DIRECTORY

UTAH—Continued

SALT LAKE CITY MUNI NO 1 *IFR* 4 W (149° 3.6 NM from SLC VOR)
4226 H100/16R-34L (3) (S-100, T-160, TT-260) BL4, 6, 7, 8 S5 F5, JP1 U2 VASI: Rnwy 16R RVR: Rnwy 34L
FSS: SALT LAKE CITY on Fld
REMARKS: Rnwy 7-25 & 14-32 restricted to acft in excess of 35,000 lbs.
SALT LAKE TOWER 118.3 126.2 122.7R
SALT LAKE GND CON 121.9
RADAR SERVICES: (BCN)
SALT LAKE APP CON 120.9 122.7R 116.8T 109.5T
SALT LAKE DEP CON 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I-SLC Apch Brg 338°
VHF/DF available, contact tower.
REMARKS: VOT: 111.0

VERMONT

BURLINGTON MUNI *IFR* 2 E (033° 4.3 NM from BTV VOR) AOE
335 H78/15-33 (2) (S-75, T-130, TT) BL6, 8A S5 F5, JP1, 4 U2 RVV: Rnwy 15
FSS: MONTPELIER (LC 878-3393)
TOWER 126.2 122.5R 118.3 110.3T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 121.1 133.5 126.2 122.5R 110.3T
DEP CON 119.2
ILS 110.3 I-BTV Apch Brg 146° BC Unusable
VHF/DF available, contact tower
REMARKS: VOT: 109.0

VIRGINIA

LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW (025° 4 NM from LYH VOR)
942 H58/3-21 (3) (S-60, T-80, TT-120) BL6, 8 S5 F4 U2
FSS: ROANOKE (LC 846-3942)
LYNCHBURG TOWER 120.7 122.5R
LYNCHBURG GND CON 121.9
LYNCHBURG APP CON 118.0 122.5R 120.7
ILS 110.1 I-LYH Apch Brg 032°

NEWPORT NEWS
PATRICK HENRY *IFR* 9 NW (065° 2.7 NM from PH LOM)
41 H56/6-24 (2) (S-90, T-130, TT-225) BL4, 6, 8 S5 F5, JP1 U2
FSS: NEWPORT NEWS on Fld
REMARKS: Fee in lieu of fuel for acft over 12,500 lbs.
TOWER 118.7 122.7R 110.1T 317T
GND CON 121.9
RADAR SERVICES: (BCN)
NORFOLK APP CON 125.7
NORFOLK DEP CON 118.9
ILS 110.1 I-PHF Apch Brg 065°

VIRGINIA—Continued

NORFOLK MUNI *IFR* 5 NE (ORF VOR on fld)
26 H50/4-22 (3) (S-70, T-100, TT-180) BL4, 6, 8 S5 F4, JP1 U2 RVV: Rnwy 4 FSS: NEWPORT NEWS
REMARKS: Rnwy 13 threshold displaced 219'.
TOWER 121.1 122.5R 109.1T 108.7Tx 281Tx
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.8 DEP CON 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ m
Min Alt 526
ILS 109.1 I-ORF Apch Brg 045°
VHF/DF available, contact tower.

RICHMOND
BYRD FIELD *IFR* 6 E (RIC VOR on fld)
167 H80/15-33 (3) (S-100, T-135, TT-240)* BL4, 6, 8 S5 F5, JP1, 4 U2 RVV: Rnwy 6 FSS: RICHMOND
REMARKS: Fee exec and skeds. *(S-50, T-75, TT-135) ops rnwy 2-20 and 6-24. Rgt tfc patn.
RICHMOND TOWER 119.5 126.2 122.5R 110.3T
CLRNC DEL 121.9 RICHMOND GND CON
RADAR SERVICES:
RICHMOND APP CON 119.0 126.2 122.5R 119.9
RICHMOND DEP CON 118.2
TFC INFO Ctc twr 35 mi out.
ASR Rnwys 2, 6, 15, 20, 24, 33 Ceil 400 Vsby 1 mi
Alt 567
ILS 110.3 I-RIC Apch Brg 063°
REMARKS: VOT: 110.8

ROANOKE MUNI (WOODRUM FLD) *IFR* 3 NW (ODR VOR on fld)
1174 H54/5-23 (3) (S-60, T-85, TT-140) BL4, 11 S5 F5, JP1 REIL: Rnwy 23 FSS: ROANOKE
REMARKS: Rnwy 33 threshold displaced 125'.
TOWER 118.3 122.5R 120.2
GND CON 121.9
RADAR SERVICES:
APP CON 126.9 122.5R 120.2 109.0T
DEP CON 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374.

WASHINGTON

EVERETT
PAINE FIELD *IFR* 6 SW (PAE VOR on fld)
603 H90/16-35 (2) (S-50, T-90, TT-220) BL6, 8 S5 F4, JP4
FSS: SEATTLE
REMARKS: Rnwy 11 threshold displaced 1600'.
TOWER 121.3 126.2 122.5R 302.5R 278T
RADAR SERVICES:
SEATTLE CENTER APP CON 121.2
ILS 109.3 I-PAE Apch Brg 155°
REMARKS: IFF/SIF svc avbl.

RENTON MUNI Adjt NW (031° 4.8 NM from SEA VOR)
29 H53/15-33 (1) (S-100, T-190, TT-300) BL4 S5 F4, JP4 U2
FSS: SEATTLE (LC CH 342)
REMARKS: Rnwy 33 threshold displaced 1000'. Rgt tfc rnwy 33.
TOWER [1]118.9 122.7R
GND CON 121.9 SEATTLE DEP CON 119.2
REMARKS: [1]Oper 1500-0700Z.

WASHINGTON—*Continued*

TLE
.ING FIELD *IFR* 4 S (290° 2.1 NM from SJ RNG) AOE
/ H100 13-31 (2) (S-120, T-180, TT-400) BL6, 11, 12 S5
5, JP1 U2 RVV: Rnwy 13 REIL: Rnwy 31
FSS: SEATTLE (DL)
OWER 126.2 122.5R 118.3 248T
GND CON 121.9
ADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
.S 110.9 I-BFI Apch Brg 128°

TLE-TACOMA INTL *IFR* 10 S (SEA VOR on fld)
(8 H119/16-34 (2) S-45, T-145, TT-300) BL4, 6, 8A S5
5, JP1, 4 RVV: Rnwy 16 RVR: Rnwy 34
FSS: SEATTLE on Fld
OWER 119.9 126.2 122.6R 281T
CLRNC DEL 118.0 GND CON 121.7
ADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
.S 110.3 I-SEA Apch Brg 338° BC unusable 111.5
I-SZI Apch Brg 158°
HF/DF available, contact tower.

ANE INTL *IFR* 5 S (027° 4.4 NM from GEG VOR)
372 H90/3-21 (2) (S-100, T-200, TT-350) BL5, 6, 8A
5 F4, JP1 U2 RVV: Rnwy 3 RVR: Rnwy 21
FSS: SPOKANE (LC KE 5-2906)
EMARKS: Rgt tfc rnwy 3 and 7.
OWER 118.3 126.2 122.5R
GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 134.1 126.2x 124.7 123.7 122.5R 119.0
109.9T
DEP CON 124.3
TFC INFO Ctc Spokane APP CON aprx 20 mi out.
.S 109.9 I-GEG Apch Brg 205°
OT: 109.6

AMUNI *IFR* 2 S (244° 3.6 NM from YKM VOR)
082 H55/9-27 (3) (S-50, T-60, TT-100) BL4, 6, 8 S5
5, JP1, 4 U2 FSS: YAKIMA on Fld
OWER 119.1 122.5R 3023.5R 278T
GND CON 121.9
APP CON 120.2 122.5R 119.1 3023.5R
LS 110.1 I-YKM Apch Brg 269°

WEST VIRGINIA

LESTON
NAWHA *IFR* 2 NE (084° 8.1 NM from CRW VOR)
82 H56/5-23 (2) (S-150, T-200, TT-400) BL4, 6, 8, 11 S5
5, JP5 U2 RVV: Rnwy 23 REIL: Rnwy 5
FSS: CHARLESTON on Fld
HARLESTON TOWER 120.3 126.2
CHARLESTON GND CON 121.9

WEST VIRGINIA—*Continued*

KANAWAHA—(Continued)
RADAR SERVICES:
CHARLESTON APP CON 118.8 126.2 110.3T
CHARLESTON DEP CON 124.1
TFC INFO All landing acft ctc APP CON on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I-CRW Apch Brg 230°
VHF/DF available contact Tower.
REMARKS: VOT. 111.0

HUNTINGTON
TRI-STATE (WALKER LONG FLD) 6 SW (114° 4.6 NM from HT LOM)
828 H53 11-29 (1) (S-50, T-75, TT-135) BL6, 8 S5 F4, JP1
U2 FSS: HUNTINGTON on Fld
HUNTINGTON TOWER 120.9 122.5R
HUNTINGTON GND CON 121.9
HUNTINGTON APP CON 118.5 122.5R 109.9T
ILS 109.9 I-HTS Apch Brg 114°

MARTINSBURG MUNI *IFR* 4 S (289° 5.9 NM from MRB VOR)
556 H70 8-26 (2) (S-90, T-120, TT-) BL4, 6, 8 S5 F4
FSS: MARTINSBURG on Fld
TOWER [1]120.5 126.2 122.5R GND CON 121.9
RADAR SERVICES:
DULLES APP CON 125.0 126.1
DULLES DEP CON 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ½ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 Mi Min Alt 956
REMARKS: [1]Oper 1230-2030Z Tue-Sun, 1330-2130Z Wed & Fri, subject to ANG operations. Clsd Mon & hol. IFF/SIF svc avbl. [2]Oper 1330-2130Z Tue & Sat.

WHEELING-OHIO COUNTY *IFR* 7 N (220° 5.8 NM from HLG VOR)
1195 H50 3-21 (3) (S-120, T-170, TT-290) BL4, 6, 8 F4
VASI: Rnwy 21 REIL: Rnwy 21 FSS: WHEELING on Fld
WHEELING TOWER 118.1 122.5R 109.7T
WHEELING GND CON 121.9
ILS 109.7 I-HLG Apch Brg 030°

WISCONSIN

GREEN BAY
AUSTIN STRAUBEL 7 SW (145° 4.6 from GRB VOR)
694 H52 6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5 F4 U2
RVV: Rnwy 6 FSS: GREEN BAY on Fld
REMARKS: US Customs lndg rts arpt.
GREEN BAY TOWER 118.7 122.5R 109.5T 278T
GREEN BAY GND CON 121.9
GREEN BAY APP CON 119.4
ILS 109.5 I-GRB Apch Brg 059°

MADISON
TRUAX FIELD 5 NE (TAX VOR on fld)
859 H76/18-36 (4) (S-60, T-80, TT-) BL4, 6, 8, 9 S5
F4, JP4, 5 U2 RVV: Rnwys 18, 36
FSS: LONE ROCK on Fld
REMARKS: Rnwy 8 apch restricted by poleline - glide angle 4 to 1. Rnwy 18 apch restricted by poleline- glide angle 13 to 1.

AIRPORT/FACILITY DIRECTORY

WISCONSIN–*Continued*

TRUAXFIELD–(Continued)
MADISON TOWER 119.3 126.2 115.5T 3023.5R 278T
MADISON GND CON 121.9
MADISON APP CON 120.1 126.2 109.9T 3023.5R 278T
MADISON DEP CON 118.8
ILS 109.9 I-MSN Apch Brg 359°
VHF/DF available contact Tower.

MILWAUKEE
GENERAL MITCHELL FLD 5 S (006° 3.6 NM from MK LOM)
702 H99/11-19 (4) (S-200, T-200, TT-400) BL4, 6, 8A S5
F5, JP1 U2 RVR: Rnwy 1 FSS: MILWAUKEE on Fld
REMARKS: Rgt tfc rnwy 1-7. Rnwy 19 threshold displaced 1600 ft S. 8316 avbl lndg rnwy 19. Rnwy 7L-25R clsd to all Jet acft. CTN - const vic rnwy 7R.
MILWAUKEE TOWER 119.1 126.2 124.8 122.7R 278T
CLRNC DEL 120.0 MILWAUKEE GND CON 121.9
RADAR SERVICES: (BCN)
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T
110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6
TFC INFO Call APP CON 15 mi out.
ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1102.
Rnwys 13, 19 Ceil 500 Vsby 1 mi Min Alt 1202.
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1302
ILS 110.3 I-MKE Apch Brg 006°
VHF/DF available, contact Tower.
REMARKS: [1]Do not dsnd blo 1200 on apch until ctlr adz psg the AC Spark Plug twr.
VOT: 109.0

MILWAUKEE
TIMMERMAN FIELD 5 NW (MWC VOR on fld)
745 H41/15L-33R (2) (Max-15) BL4 S5 F4
FSS: MILWAUKEE (DL)
REMARKS: P-line E, NE.
TOWER [1]120.5 122.5R 345T GND CON 121.7
RADAR SERVICES:
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T

WISCONSIN–*Continued*

TIMMERMAN FIELD–(Continued)
110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6
REMARKS: [1]Oper 1200-0400Z.

OSHKOSH
WINNEBAGO CO 1 SW (OSH VOR on fld)
795 H58/9-27 (4) (S-75, T-100, TT-) BL6 S5 F4 U[illegible]
FSS: GREEN BAY [illegible]
REMARKS: Rnwy 27 apch restricted by poleline - glide angle 6 to 1. Rnwy 22 apch rest by poleline- glide angle 6 to 1. Rnwy 18 apch restricted by poleline - glide angle 1 to 1. Rnwy 27 threshold displaced 875 ft W. 5225 ft avbl lndg rnwy 27 Rnwy 36 threshold displaced 890 ft N. 4260 ft avbl lndg rnwy 36. No snow removal rnwys 4-22 and 13-31.
OSHKOSH TOWER [1]120.7 122.5R 395T
OSHKOSH GND CON 121.9 CHICAGO ARTCC
APP CON 124.4
ILS 110.5 I-OSH Apch Brg 088°
REMARKS: [1]Oper 1300-0500Z

WYOMING

CASPER AIR TERMINAL 7 NW (201° 13.2 NM from CPR VOR
5348 H90/16-34 (4) (S-80, T-146, TT-288) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 7 FSS: CASPER [illegible]
REMARKS: 1000 ft overruns on ea end rnwy 3-21 not lgtd
TOWER 126.2 122.5R 118.3 GND CON [illegible]
APP CON 120.7 126.2 122.5R 118.3 116.2T [illegible]
ILS 110.3 I-CPR Apch Brg 074°

CHEYENNE MUNI 1 N (195° 3.7 NM from CYS VOR)
6156 H93/8-26 (3) (S-90, T-121, TT-270) BL4, 6, 8 S5
F5, JP4 RVV: Rnwy 26 FSS: CHEYENNE [illegible]
REMARKS: Avoid hospital E. Rnwy 8 threshold displaced 43 ft E. 8897 ft avbl lndg rnwy 8.
TOWER 126.2 122.5R 118.7 113.1T 201T
GND CON 121.9
VFR ADV Ctc APP CON on 119.9 aprx 25 mi out.
APP CON 126.2 122.5R 119.9 118.7 113.1T [illegible]
ILS 109.9 I-CYS Apch Brg 261°

ARTCC COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE SECTION II DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

ALBUQUERQUE

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
[illegible]	120.1	123.7	124.5	132.9	133.0	132.65	133.05	119.7
[illegible]	124.7	124.9	125.2	133.8	133.45	133.55	133.65	
[illegible]	125.5	125.9	126.4	133.85	134.25	134.35	134.45	
[illegible]	127.2	132.2	132.8	134.75	135.05	135.3	135.7	
[illegible]				135.8	135.15			

ATLANTA

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
[illegible]	[illegible]0	120.3	120.8	132.25	132.75	132.85	132.9	135.9
[illegible]	[illegible]	123.8	124.1	133.1	133.35	133.7	134.55	
[illegible]	[illegible]	125.5	126.4	134.6	135.15	135.75		
[illegible]	[illegible]	127.55	127.8					
[illegible]	[illegible]3	128.6	128.65					

BOSTON

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
[illegible]	[illegible]	[illegible]0	[illegible]3	127.8	128.1	[illegible]5	132.65	125.9
[illegible]	[illegible]	[illegible]	127.1	[illegible]9	134.3	134.45	134.85	
[illegible]	[illegible]5	127.8	127.9	134.95				
[illegible]	[illegible]4	132.4	[illegible]56					

CHICAGO

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
[illegible]2	120.4	120.6	120.8	127.95	132.15	132.5	132.75	124.1
[illegible]4	124.0	124.4	124.5	133.35	133.5	133.95	134.85	
[illegible]8	125.1	125.2	126.6	135.35	135.55			
[illegible]8	126.9	127.0	127.1					
[illegible]3	127.6	127.7	128.05					
[illegible]2	128.4	128.5	128.65					
[illegible]7	132.3	133.9						

CLEVELAND

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
[illegible]8	118.9	119.6	119.8	132.25	132.45	133.25	133.3	126.5
[illegible]2	120.3	120.4	120.6	133.95	134.25	134.65		
[illegible]8	121.2	121.4	123.9					
[illegible]2	124.3	124.4	124.5					
[illegible]6	125.0	125.1	125.2					
[illegible]3	125.6	125.7	126.1					
[illegible]4	126.8	127.15	127.5					
127.45	127.65	127.9	128.35					
128.45	128.6	134.3						

DENVER

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
119.8	124.1	125.0	125.6	127.3	127.55	128.2	132.1	126.5
125.8	126.0	127.2	127.8	132.15	132.6	132.85	133.15	
132.2	132.5	132.7	133.0	133.3	133.75	133.85	134.65	
133.4	134.6			135.5	135.15	135.65		

FORT WORTH

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
119.4	120.9	124.4	124.6	132.2	132.35	132.45	132.55	120.9
124.7	124.8	125.0	125.5	132.75	133.5	133.25	133.35	
125.6	126.0	126.6	127.3	133.95	135.4	135.8		
127.7	128.0	128.1	128.3					
128.45	133.1	133.3	133.9					
135.0	135.6							

GREAT FALLS

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
120.4	124.1	125.1	125.5	132.25	132.65	132.95	133.4	123.9
126.5	127.1	127.3	127.8	133.55	134.3	134.55	135.25	
128.0	128.5			343.7	351.9			

INDIANAPOLIS

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.2	123.6	124.2	124.4	128.25	132.7	133.05	133.45	124.9
124.8	126.0	127.0	127.1	133.75	134.35	134.75	134.9	
127.4	128.3	128.4	128.55	134.95				
128.8	132.6	135.1	135.7					
135.8								

JACKSONVILLE

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65	124.7
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.85	
127.2	128.1	128.5	132.3	135.05	135.25	135.55	135.65	
132.5	132.8	133.4	133.5					
134.3	134.7							

ARTCC COMMUNICATIONS FREQUENCIES

KANSAS CITY

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.8	128.9	119.0	119.2	132.25	132.4	132.65	132.9	123.9	
119.4	119.6	119.7	120.2	132.95	133.1	133.15	133.35		
121.0	123.6	123.8	124.2	133.45	133.8	134.3	134.7		
125.2	125.3	125.4	125.9	134.9	135.0	135.4	135.25		
126.4	127.2	127.8	128.0	135.65					
128.1	132.2	132.8							

LOS ANGELES

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
119.0	119.8	124.5	125.8	127.9	128.3	128.6	132.15	123.9	
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.55		
127.3	127.4	128.2	128.4	134.75	134.95	135.45			
132.3	132.5	132.6	133.4						
133.8	134.2	134.4	134.6						
135.05									

MEMPHIS

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.6	119.3	120.1	123.6	132.35	133.0	133.55	133.6	
124.4	124.6	125.4	127.1	134.25	134.45	134.9	135.3	
127.2	127.25	127.3	127.4	135.5	135.7			
127.75	128.0	128.05	128.7					
132.1	132.3	132.5	135.45					

MIAMI

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.9	120.0	120.3	123.6	125.7	127.7	132.7	132.95	120.5	
124.1	124.4	124.5	124.7	133.65	133.8	134.35	134.5		
125.4	125.6	125.8	126.0	134.95	135.15	135.5			
126.4	127.0	127.3	128.25						

MINNEAPOLIS

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
120.3	120.9	125.5	125.9	132.15	133.4	133.55	133.65	118.9	
126.0	126.1	127.2	127.3	133.85	134.25	134.45	134.8		
127.4	127.5	127.8	127.9	134.55	135.45	135.7			
128.2	128.4	132.1	132.6						
134.8									

NEW ORLEANS

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.9	120.7	123.6	124.0	132.6	132.7	133.65	133.85	125.1	
124.1	124.6	125.1	125.8	134.75	135.2				
126.0	126.6	126.8	126.9						
128.1	128.4								

NEW YORK

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
119.6	119.8	120.0	120.2	132.1	132.3	132.95	133.8	[illegible]	
123.6	124.1	124.2	124.8	133.9	134.8	135.45	135.55		
125.1	125.3	125.4	125.5	135.75					
125.6	126.0	126.4	126.6						
126.8	127.95	128.2	128.3						
128.5	128.65	132.6	134.6						
135.1	135.6	135.65	137.65						

OAKLAND

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.4	120.2	120.4	120.6	124.95	128.15	132.35	133.55	[illegible]	
121.2	123.8	123.9	124.0	132.8	132.95	133.3	133.7		
124.2	124.6	125.5	125.9	133.75	134.35	134.7	134.85		
126.5	126.8	127.2	127.5						
127.7	127.8	128.7							

SALT LAKE CITY

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
123.6	124.0	124.4	124.5	132.4	132.5	132.25	132.55	125.3	
126.6	127.4	128.4	133.1	132.75	133.25	133.45	134.15		
				134.8	134.85	135.7			

SAN ANTONIO

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.2	119.7	121.0	121.2	132.15	132.8	133.75	134.8	[illegible]	
124.2	125.4	125.8	125.9	134.35	134.95				
126.4	126.9	126.95	127.2						
127.4	127.8	128.0	128.2						
128.3	128.4	132.9	133.05						
134.7	134.8								

SEATTLE

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
120.3	120.9	121.2	124.1	133.0	133.5	133.9	134.65	[illegible]	
125.1	125.3	125.6	125.8	134.75					
126.0	128.1	132.1	132.6						
134.95									

WASHINGTON

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0	[illegible]	
121.0	123.9	124.0	124.1	133.15	133.55	133.65	133.85		
124.7	124.9	125.2	125.8	134.4	135.2				
126.4	127.1	127.6	128.15						
128.6	132.15	132.4	133.25						
135.0	135.4								

Pilot to Forecaster Weather Briefing Service available on 122.6 mc.

FSS FREQUENCIES AND TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Stations providing Airport Advisory Service (AAS) are indicated by the letters AAS following the FSS name. 122.2T is the standard FSS transmitting frequency for this service.

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

•–indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

†–indicates a restricted number, use for aviation weather information only.

%–call FSS for "one call" FSS/WBAS briefing service.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name.

FSS's transmit on navigational aid frequencies which are listed first, followed by the identification of the NAVAID.

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 135.9 and emergency 121.5. These frequencies are available at all stations listed, unless annotated by a diamond (◆), identifying those stations where complete standard FSS communications frequencies are not available. This diamond is then supplemented with those standard FSS communications frequencies not available, listed by a cross-out, i.e., ~~135.9~~. Additional frequencies, e.g., 3023.5R, are listed when available. Frequencies transmit and receive unless annotated by the addition of: R – Receive Only, T – Transmit Only, X – On Request.

ALABAMA

Location and Frequencies		Code Area	Telephone
Anniston (AAS) 108.8 329 (ANB)	FSS	(205)	831-2308
Birmingham 114.4 224 (BHM)	FSS	(205)	595-6151
	WB	(205)	%
	WB	(205)	595-7101•
Dothan 111.6 (DHN)	FSS	(205)	794-6683
Huntsville	FSS	(205)	536-1254
	WB	(205)	881-2761†
Mobile (Bates) 115.3 248 (MOB)	FSS	(205)	342-1177
	WB	(205)	342-2762†
Montgomery (Dannelly) 112.1 (MGM)	FSS	(205)	269-4368
	WB	(205)	263-0621†
Muscle Shoals (AAS) 116.5 (MSL)	FSS	(205)	383-6541
	FSS	(205)	383-6430
Tuscaloosa (AAS) 117.8 (TCL)	FSS	(205)	758-3628

ARIZONA

Location and Frequencies		Code Area	Telephone
Douglas (AAS) (Bisby-Douglas)			
Douglas (AAS) (Bisby-Douglas) 110.0 (DUG)			
110.0 (DUG)	FSS	(602)	EM 4-5353
Flagstaff	WB	(602)	774-1424
Phoenix (Sky Harbor) 115.6 326 (PHX)	FSS	(602)	261-4295
	WB	(602)	BR 5-8501•
	WB	(602)	%
Prescott (AAS) 114.1 347 (PRC)	FSS	(602)	HI 5-2160
	WB	(602)	445-7221
			(0700-1500)
Tucson 117.1 338 (TUS)	FSS	(602)	294-1463
Winslow	WB	(602)	289-3592
	WB	(602)	%
Yuma 116.8 (YUM)	FSS	(602)	725-2601
	WB	(602)	725-2605
			(0430-2030)

ARKANSAS

Location and Frequencies		Code Area	Telephone
El Dorado (AAS) (Goodwin) 108.2 368 (ELD)	FSS	(501)	UN 3-9313
Fayetteville (AAS) (Drake) 116.4 (FYV)	FSS	(501)	HI 2-8277
Ft. Smith 110.4 311 (FSM)	FSS	(501)	MI 6-1791

ARKANSAS (Con't)

Location and Frequencies		Code Area	Telephone
	WB	(501)	MI 6-5731†
Harrison (AAS) 110.8 (HRO)	FSS	(501)	EM 5-3433
Little Rock	WB	(501)	FR 4-1546†
Pine Bluff (AAS) (Grider) 116.0 (PBF)	FSS	(501)	JE 5-0652
Texarkana 116.3 329 (TXK)	FSS	(501)	774-6221
Walnut Ridge (AAS) 114.5 (ARG)	FSS	(501)	TU 6-6671

CALIFORNIA

Location and Frequencies		Code Area	Telephone
Arcata (AAS) 233 (CV)	FSS	(707)	TE 9-2071
Bakersfield (Meadows) 115.4 239 (BFL)	FSS	(805)	399-1787
	WB	(805)	%
Bishop			UP 3-3213
			(0545-1915)
Blythe (AAS) 117.4 251 (BLH)	FSS	(714)	948-6638
Burbank	WB	(213)	848-1460†
	WB	(213)	762-4111•
			Via Los Angeles
Crescent City (AAS) (McNamara FLD) 109.0 (CEC)	FSS	(707)	IN 4-2514
Daggett (AAS) 113.2 365 (DAG)	FSS	(714)	CL 4-2223
Fresno (Air Terminal) 112.9 344 (FAT) 3023.5RX	FSS	(209)	251-8260
	FSS	(209)	251-8269
Imperial (AAS) 115.9 (IPL)	FSS	(714)	355-1948
Long Beach	WB	(213)	429-3563†
	WB	(213)	DA 3-4626•
			Via Los Angeles
Los Angeles (International) 113.6 332 (LAX)	FSS	(213)	SP 6-2727
	WB	(213)	670-2223
	WB	(213)	SP 6-1640•
Marysville (AAS) (Yuba Co.) 305 (MYV)	FSS	(916)	SH 2-1449
Montague (AAS) (Siskiyou Co.) 382 (SIY)	FSS	(213)	459-3003
Mt Shasta	WB	(916)	926-2227
			(0730-1600)
Needles (AAS) 115.2 269 (EED)	FSS	(714)	326-3511
Oakland (Metropolitan-International) 116.8 362 (OAK)	FSS	(415)	638-5714
	WB	(415)	%
	WB	(415)	832-5418•
			(Via San Francisco)
Ontario 117.0 (ONT)	FSS	(714)	YU 4-6631

FSS FREQUENCIES AND TELEPHONE NUMBERS

CALIFORNIA (Con't.)

Location and Frequencies		Code Area	Telephone
Palmdale (USAF Plant #42) 114.5 317 (PMD)	FSS	(805)	947-3502
Paso Robles (AAS) 114.3 (PRB)	FSS	(415)	238-2448
Red Bluff (AAS) (Bidwell) 115.7 338 (RBL)	FSS	(916)	527-0242
	WB	(916)	527-5435†
Sacramento 115.2 (SAC)	FSS	(916)	GA 8-6500
Salinas 117.3 (SNS)	FSS	(408)	422-4723
San Diego (Lindbergh) 117.8 (SAN)	FSS	(714)	296-3181
	WB	(714)	%
San Francisco	IFSS	(415)	588-2284
	WB	(415)	589-6711*
	WB	(415)	761-2052†
Santa Barbara 114.9 (SBA)	FSS	(805)	967-2305
Santa Catalina Island	WB		Avalon 703
Santa Maria	WB	(805)	WA 5-3525
Stockton 116.0 (SCK)	FSS	(209)	466-3684
	WB	(209)	464-6283†
Thermal (AAS) 116.2 (TRM)	FSS	(714)	EX 9-5155
Ukiah (AAS) 112.3 (UKI)	FSS	(707)	462-6136

COLORADO

Akron (AAS) 114.4 388 (AKO)	FSS	(303)	345-2271
Alamosa	WB	(303)	589-2547
			(0400-2000)
Colorado Springs	WB	(303)	632-0535†
Denver (Stapleton Air Field) 116.3 379 (DEN)	FSS	(303)	297-3277
	WB	(303)	297-3049†
	WB	(303)	388-3653*
Eagle (AAS) (EGE)	FSS	(303)	328-2125
Grand Junction (Walker Field) 112.4 396 (GJT)	FSS	(303)	CH 2-1801
	WB	(303)	243-0914
La Junta (AAS) (LHX)	FSS	(303)	DU 4-4311
Pueblo (Memorial) 116.7 373 (PUB)	FSS	(303)	948-3301
	WB	(303)	948-3376†
Trinidad 329 (TAD)	FSS	(303)	846-2623

CONNECTICUT

Bridgeport	WB	(203)	378-2344
Hartford (Bradley Field)	WB	(203)	247-2855†
New Haven	WB	(203)	469-2141†
			(0630-1700)
Windsor Locks (Bradley Field) (BDL) 3023.5RX	FSS	(203)	NA 3-2416
	WB	(203)	NA 3-5590

DELAWARE

Wilmington	WB	(302)	EA 8-2755†

DISTRICT OF COLUMBIA

Washington (Chantilly, Va) Dulles Intl (27.5¢ toll)	WB	(703)	661-8526†
Washington (National) 111.0 332 (DCA)	FSS	(202)	DI 7-1442
	WB	(202)	DI 7-8016*
	WB	(202)	NA 8-0491†

FLORIDA

Apalachicola	WB	(305)	653-3171
Crestview (AAS) 115.9 350 (CEW)	FSS	(305)	MU 2-2795
Daytona Beach 112.6 (DAB)	FSS	(305)	255-4767
	WB	(305)	CL 2-5949

FLORIDA (Con't.)

Location and Frequencies		Code Area	Telephone
Ft. Myers (AAS) (Page Field) 117.6 341 (FMY)	FSS	(813)	WE 6-1[illegible]
	WB	(813)	WE 6-[illegible]
			(0600-[illegible] Apr-[illegible]
			(0600-2200 Nov.-Mar
Gainesville (AAS) 116.2 (GNV)	FSS	(305)	FR [illegible]
Jacksonville (Imeson) 114.5 344 (JAX)	FSS	(305)	EL [illegible]
	WB	(305)	EL [illegible]
			(0300-[illegible]
	WB	(305)	EL [illegible]
Key West (AAS) (International) 115.3 332 (EYW)	FSS	(305)	CY [illegible]
	WB	(305)	CY [illegible]
Lakeland (Drane)	WB	(305)	66[illegible]
			(0600-2400 Nov 15-Mar 15
			(0600-1700 Mar 16-Nov 14
Melbourne (AAS) (J.F.K. Mem'l) 109.8 257 (MLB)	FSS	(305)	PA [illegible]
Miami 115.9 365 (MIA)	IFSS	(305)	6[illegible]
	WB	(305)	[illegible]
	WB	(305)	666-[illegible]
Orlando (Herndon) 112.2 (ORL)	FSS	(305)	CH [illegible]
	WB	(305)	[illegible]
			(0600-[illegible]
Pensacola 326 (PNS)	FSS	(305)	HE [illegible]
St Petersburg via Tampa	WB	(813)	[illegible]
Tallahassee 117.5 379 (TLH)	FSS	(305)	[illegible]
	WB	(305)	[illegible]
Tampa (Tampa International) 388 (TPS) 3023.5 RX	FSS	(813)	[illegible]
	WB	(813)	[illegible]
	WB	(813)	[illegible]
Vero Beach (AAS) 117.3 (VRB)	FSS	(305)	[illegible]
W Palm Beach (Palm Beach International) 115.5 356 (PBI)	FSS	(305)	[illegible]
	WB	(305)	[illegible]

GEORGIA

Albany (AAS) 112.9 (ABY)	FSS	(912)	HE [illegible]
Alma (AAS) 115.1 (AMG)	FSS	(912)	[illegible]
Athens	WB	(404)	LI [illegible]
Atlanta (Fulton Co.) (ASS) 108.2 (FTY)	FSS	(404)	[illegible]
	WB	(404)	[illegible]
	WB	(404)	[illegible]
Augusta (Bush Fld) 113.9 385 (AGS)	FSS	(404)	[illegible]
	WB	(404)	[illegible]
Brunswick (AAS) (Malcom McKinnon) 109.8 (SSI)	FSS	(912)	[illegible]
Columbus (Muscogee County) 117.1 335 (CSG)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
			(0[illegible]
Macon (Cochran) 114.2 (MCN)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
Rome	WB	(404)	[illegible]
			(0700-130[illegible]
			(0700-[illegible]
Savannah (Travis) 112.7 (SAV)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
Valdosta (AAS) 110.4 (VLD)	FSS	(912)	[illegible]

IDAHO

Boise (Air Terminal) 113.3 359 (BOI)	FSS	(208)	[illegible]
	WB	(208)	[illegible]
Burley (AAS) 114.1 272 (BYI)	FSS	(208)	[illegible]
Idaho Falls (Fanning Field) 108.2 350 (IDA)	FSS	(208)	[illegible]
Malad City 117.4 332 (MLD)	FSS	(208)	[illegible]
Mullan Pass 117.8 411 (MLP)	FSS	(208)	[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

IDAHO (Con't.)

Location and Frequencies		Code Area	Telephone
Lewiston	WB	(208)	SH 3-3841
			(0330-1930)
Pocatello 113.4 257 (PIH)	FSS	(208)	232-2032
	WB	(208)	233-0137

ILLINOIS

Champaign (University of Ill.) 110.0 (CMI)	FSS	(217)	827-5211
Chicago	WB	(312)	686-2155†
	WB	(312)	667-5055*
Joliet (AAS) 112.3 (JOT)	FSS	(815)	725-3144
Moline (Quad City) 114.4 (MLI)	FSS	(309)	762-2412
	WB	(309)	762-1726
Peoria (Greater Peoria) 115.2 356 (PIA)	FSS	(309)	697-0751
	WB	(309)	637-6422†
Quincy (Baldwin) 113.1 (UIN)	FSS	(217)	TU 5-3251
Rockford (Greater Rockford) 110.8 (RFD) 3023.5RX	FSS	(815)	965-6758
	WB	(815)	963-5816†
			(0515-2115)
Springfield (Capital) 112.7 (CAP) 379 (SPI)	FSS	(217)	544-9012
	WB	(217)	523-5812
Vandalia (AAS) 114.3 (VLA)	FSS	(618)	283-0478

INDIANA

Evansville (Dress Memorial) 113.3 (EVV) 3023.5RX	FSS	(812)	HA 2-8120
	WB	(812)	HA 4-9613†
Ft Wayne (Baer Field) 113.9 251 (FWA)	FSS	(219)	747-3139
	WB	(219)	747-2577†
Indianapolis (Weir-Cook) 116.3 266 (IND)	FSS	(317)	CH 4-9561
	WB	(317)	CH 4-7411*
	WB	(317)	CH 4-3382†
Lafayette (AAS) (Purdue University) 113.7 (LAF)	FSS		RI 3-1802/3
South Bend (St. Joseph Co.) 115.4 (SBN)	FSS	(219)	CE 3-4433
	WB	(219)	234-3937†
Terre Haute (Hulman) 111.8 245 (Huf	FSS		C-2704

IOWA

Burlington (AAS) 111.4 (BRL)	FSS	(319)	752-4734
Cedar Rapids 117.6 (CID)	FSS	(319)	364-3041
Davenport (via Moline Ill.)	WB	(319)	326-2677
Des Moines 114.1 (DSM)	FSS	(515)	285-5691
	WB	(515)	284-4493†
Dubuque	WB	(319)	582-0174
			(0545-2105)
Mason City 114.9 (MCW)	FSS	(515)	GA 3-7512
Ottumwa 111.6 (OTM)	FSS	(515)	MU 2-1846
Sioux City 116.5 335 (SUX)	FSS	(712)	8-1060
	WB	(712)	2-0244
Waterloo 108.2 (ALO)	FSS	(319)	AD 3-5528
	WB	(319)	234-9902

KANSAS

Concordia	WB	(913)	CH 3-3141
Chanute 109.2 (CNU)	FSS	(316)	HE 1-4450
Dodge City (AAS) 108.2 (DDC)	FSS	(316)	HU 3-3441
	WB	(316)	HU 3-3311
Emporia 112.8 (EMP)	FSS	(316)	DI 2-7475
Garden City (AAS) (New Municipal) 113.3 (GCK)	FSS	(316)	BR 6-2531
Goodland (AAS) 115.1 (GLD)	FSS	(913)	TW 9-7154
	WB	(913)	TW 9-2360†

KANSAS (Con't.)

Location and Frequencies		Code Area	Telephone
Hill City (AAS) 113.7 (HLC)	FSS	(913)	674-5642
Hutchinson 116.9 (HUT)	FSS	(316)	2-4851
Manhattan (AAS) (MHK) 121.7 121.5	FSF	(913)	PR 6-9751
			(0600-1800)
Russell 114.5 (RSL)	FSS	(913)	483-2312
Salina 115.3 (SLN)	FSS	(913)	TA 5-5309
Topeka (Public Service Board) 117.8 (TOP)	FSS	(913)	CE 2-5478
	WB	(913)	CE 4-2592†
Wichita 113.8 332 (ICT)	FSS	(316)	WH 2-2761 2
	WB	(316)	WH 2-3284*
	WB	(316)	WH 3-1063†

KENTUCKY

Bowling Green (Warren County) 117.9 (BWG)	FSS	(502)	VI 3-4424
Erlanger (Grtr Cincinnati Arpt)	WB	(513)	391-8195†
Lexington (Blue Grass) 117.0 (LEX)	FSS	(606)	254-5143
	WB	(606)	255-1774†
London 116.1 (LOZ)	FSS	(606)	864-4410
Louisville (Bowman) 114.8 (LOU)	FSS	(502)	451-5344
	WB	(502)	368-2188†
Paducah (Barkley) 117.3 356 (PUK)	FSS	(502)	442-1551

LOUISIANA

Alexandria 116.1 251 (AEX)	FSS	(318)	445-3663
	WB	(318)	HI 3-7539†
			(0600-2200)
Baton Rouge (Ryan) 116.5 (BTR) 3023.5RX	FSS	(504)	EL 5-2763
	WB	(504)	EL 7-9943†
Lafayette 110.8 375 (LFT)	FSS		CE 5-3752
	WB		234-1220†
Lake Charles 113.4 242 (LCH)	FSS	(318)	477-1784
	WB	(318)	477-5227†
Monroe (Selman) 113.7 (MLU)	FSS	(318)	322-3157
New Orleans 113.2 338 (MSY)	FSS	(504)	943-5535
	WB	(504)	523-4311*
	WB	(504)	729-2520†
Shreveport (Greater Shreveport) 117.4 230 (SHV)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141†

MAINE

Augusta (State) 111.4 221 (AUG)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton (Memorial International) 108.2 (HUL)	FSS	(207)	532-2475
Millinocket (AAS) 117.9 344 (MLT)	FSS	(207)	723-8343
Old Town (OLD)	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland (PWM)	FSS	(207)	SP 5-0602
	WB	(207)	775-3071†

MARYLAND

Baltimore	WB	(301)	761-1333†
	WB	(301)	766-0757*
			(0600-1800)
Salisbury (Salisbury-Wicomico) 114.5 (SBY)	FSS	(301)	742-7324

FSS FREQUENCIES AND TELEPHONE NUMBERS

MASSACHUSETTS

Location and Frequencies		Code Area	Telephone
Boston (Logan) 117.7 382 (BOS) 3023.5RX	FSS	(617)	LO 7-0099
	FSS	(617)	LO 7-0015
	WB	(617)	%
	WB	(617)	569-1773*
			(0600-2300)
Nantucket (AAS) 112.7 (ACK) 3023.5R	FSS	(617)	228-0815
	WB	(617)	228-0971
Worcester (ORH)	FSS	(617)	PL 5-6083
	WB	(617)	798-2124†

MICHIGAN

Alpena	WB	(517)	354-8733†
			(0645-1915)
Battle Creek (Kellogg) 109.4 (BTL)	FSS	(616)	2-7878
Detroit (Metropolitan Wayne) 388 (DTW)	FSS	(313)	PA 2-8790
			274-5310*
	WB	(313)	278-7340†
Detroit (Willow Run)	WB	(313)	482-5001†
	WB	(313)	CR 4-5310
Flint (Bishop) 111.6 (FNT)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987*
Grand Rapids (Kent County) 110.2 (GRR)	FSS	(616)	949-4090
	WB	(616)	949-4251†
Houghton (AAS) (Houghton County) 112.8 227 (CMX)	FSS	(906)	482-0380
Houghton Lake (Roscomman County) 122.8 (HTL)	WB	(517)	366-5392
Jackson (AAS) (Reynolds Mun.) 109.6 (JXN)	FSS	(517)	ST 4-9640
Lansing (Capital City) 110.8 (LAN) 3023.5RX	FSS	(517)	2-9237
	WB	(517)	IV 9-2415†
Marquette 109.0 (MQT)	FSS	(906)	GR 5-4197
	WB	(906)	CA 6-8642†
			(0515-2100)
Muskegon (Muskegon County) 115.6 (MKG)	FSS	(616)	SW 8-1222
	WB	(616)	SW 8-3048
Pellston (AAS) (Emmet County) 111.8 332 (PLN)	FSS	(616)	LE 9-8401
Saginaw (Tri City) 112.9 212 (MBS)	FSS	(517)	OX 5-6621
Sault Ste Marie (AAS) 112.2 400 (SSM)	FSS	(906)	ME 2-8271
	WB	(906)	ME 2-7751
Traverse City 112.4 365 (TVC)	FSS	(616)	947-5056

MINNESOTA

Alexandria (AAS) 112.8 (AXN)	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982†
Hibbing (Chisholm-Hibbing) (AAS) 110.8 (HIB)	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis (Wold-Chamberlain) 117.3 266 (MSP)	FSS	(612)	PA 9-9386
	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429†
	WB	(612)	PA 9-9339*
Redwood Falls (AAS) 113.3 (RWF)	FSS	(507)	ME 7-8530
Rochester 112.0 (RST)	FSS	(507)	289-1579
	WB	(507)	289-0026†
St. Cloud	WB	(612)	251-3213†
			(0400-2200)
St. Paul	WB	(612)	PA 9-4429†

MISSISSIPPI

Greenwood (AAS) 114.7 (GRW)	FSS	(601)	GL 3-2631
Jackson (Thompson Field) 112.6 260 (JAN)	FSS	(601)	939-5212
	WB	(601)	939-5881†

MISSISSIPPI (Con't.)

Location and Frequencies		Code Area	Telephone
McComb (AAS) (Pike County) 116.7 (MCB)	FSS	(601)	684-7[illegible]
Meridian (AAS) (Key Field) 117.0 356 (MEI)	FSS	(601)	483-[illegible]
	WB	(601)	483-[illegible]
Vicksburg	WB	(601)	636-[illegible]
			(0630-1635 Mon-Fr
			(0630-1130 Sat, Sun, Holidays

MISSOURI

Cape Girardeau (CGI)	FSS	(314)	ED 4-[illegible]
Columbia 111.2 (CBI)	FSS	(314)	GI 5-[illegible]
	WB	(314)	GI 3-[illegible]
Joplin (JLN)	FSS	(417)	MA 3-[illegible]
Kansas City 112.6 359 (MKC)	FSS	(816)	GR 1-[illegible]
	WB	(816)	GR 1-[illegible]
	WB	(816)	GR 1-[illegible]
Kirksville (AAS) 114.6 (IRK)	FSS	(816)	MC 5-[illegible]
St. Joseph (Rosecrans Memorial) 108.2 (STJ)	FSS	(816)	AD 6-[illegible]
St. Louis (Lambert) 117.4 338 (STL)	FSS	(314)	PE 1-[illegible]
	WB	(314)	PE 1-[illegible]
	WB	(314)	PE 1-[illegible]
	WB	(314)	TH 8-[illegible]
			[illegible]
Springfield 116.9 254 (SGF)	FSS	(417)	[illegible]
	WB	417	[illegible]
Vichy (AAS) (Rolla National) 117.7 (VIH) 3023.5RX	FSS	(314)	AX 5-[illegible]

MONTANA

Billings (Logan Field) 114.5 400 (BIL)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Bozeman (AAS) (Gallatin Field) 112.2 329 (BZN) 3023.5RX	FSS	[illegible]	[illegible]
Butte (AAS) (Silver Bow) 111.6 (BTM)	FSS	[illegible]	[illegible]
Cut Bank (AAS) 114.4 263 (CTB) 3023.5R	FSS	[illegible]	[illegible]
Dillon (AAS) 113.0 379 (DLN)	FSS	[illegible]	[illegible]
Glasgow	WB	[illegible]	[illegible]
			[illegible]
Great Falls (International) 115.1 371 (GTF) 3023.5RX	FSS	[illegible]	[illegible]
Havre	WB	[illegible]	[illegible]
	WB	[illegible]	[illegible]
			[illegible]
Helena (City-County) 117.7 317 (HLN)	FSS	[illegible]	[illegible]
			[illegible]
	WB	[illegible]	[illegible]
Lewistown (AAS) 112.0 353 (LWT)	FSS	[illegible]	[illegible]
Livingston (AAS) (Mission Field) 116.1 224 (LVM)	FSS	[illegible]	[illegible]
Miles City 112.1 320 (MLS)	FSS	[illegible]	[illegible]
Missoula (AAS) (Missoula City) 112.8 303 (MSO)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]

NEBRASKA

Chadron (AAS) 113.4 275 (CDR)	FSS	[illegible]	[illegible]
Grand Island 112.0 (GRI)	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Imperial (AAS) (IML)	FSS	[illegible]	[illegible]
Lincoln (Union) (LKN) 3023.5RX	FSS	[illegible]	[illegible]
	WB	[illegible]	[illegible]
Norfolk	WB	[illegible]	[illegible]
			[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

NEBRASKA (Con't.)

Location and Frequencies		Code Area	Telephone
North Plate (AAS) (Lee Bird) 117.4 224 (LBF)	FSS	(308)	LE 2-4034†
	WB	(308)	532-9577†
Omaha (Eppley) 116.3 320 (OMA)	FSS	(402)	341-6178
	WB	(402)	341-5436†
	WB	(402)	342-3603*
Scottsbluff (AAS) 112.6 341 (BFF)	FSS	(308)	635-2615
	WB	(308)	632-6822
Sidney 115.7 (SNY)	FSS	(308)	254-3130
Valentine	WB	(402)	376-3442
			(0500-1300)

NEVADA

Elko 114.5 391 (EKO)	FSS	(702)	738-6506
	WB	(702)	%
Ely (AAS) (Yelland Field) 110.6 (ELY)	FSS	(702)	264-2045
	WB	(702)	264-2403
Las Vegas (McCarran) 116.9 206 (LAS)	FSS	(702)	736-1573/4
	WB	(702)	%
Lovelock (AAS) (Derby Field) 116.5 209 (LOL)	FSS	(702)	CR 3-2448
Reno 117.9 254 (RNO)	FSS	(702)	FA 9-4444
	WB	(702)	329-2902†
Tonopah (Nye County) 117.2 221 (TPH)	FSS	(702)	482-6421
Winnemucca	WB	(702)	623-2203

NEW HAMPSHIRE

Concord 11.29 (CON)	FSS	(603)	224-7474
	WB	(603)	225-5191
			(0600-1900)
Lebanon (Regional) 111.6 (LEB)	FSS	(603)	298-8360

NEW JERSEY

Atlantic City	WB	(609)	641-4327†
Millville 115.8 363 (MIV)	FSS	(609)	825-1173
Newark	WB	(201)	MA 4-8118
			MA 4-7272*
			(Via New York)
Teterboro (TEB)	FSS	(201)	AT 8-9092

NEW MEXICO

Albuquerque 113.2 230 (ABQ)	FSS	(505)	CH 3-7832
	WB	(505)	242-2661*
	WB	(505)	CH 3-7832
Carlsbad (AAS) 116.3 (CNM)	FSS	(505)	TU 5-2042
Clayton	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)
Deming (AAS) 108.6 (DMN)	FSS	(505)	546-2726
Farmington (AAS) 115.3 (FMN)	FSS	(505)	DA 5-9271
Grants (AAS) 116.5 (GNT)	FSS	(505)	AT 7-3011
Hobbs (Lea County) 111.0 (HOB)	FSS	(505)	EX 3-3222
Las Vegas (AAS) 117.3 (LVS)	FSS	(505)	GA 5-7411
Raton	WB	(505)	445-3891
			(0545-1225)
Roswell (AAS) 116.1 305 (ROW)	FSS	(505)	622-6780
	WB	(505)	622-5850
			(0430-1230)
Santa Fe 110.6 (SAF)	FSS	(505)	YU 3-6581

NEW MEXICO (Con't.)

Location and Frequencies		Code Area	Telephone
Silver City	WB	(505)	538-9023
			(0530-2000 Mon-Fri)
			(0530-1330 Sat)
Truth or Consequences (AAS) 112.7 (TCS)	FSS	(505)	894-3277
Tucumcari (AAS) 113.6 (TCC)	FSS	(505)	461-2900
Zuni 113.4 (ZUN)	FSS	(505)	782-3770

NEW YORK

Albany (Albany County) 116.9 (ALB)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173†
Binghamton (Broome County) 114.3 317 (BGM)	FSS		RA 9-6145
	WB	(607)	797-0784†
Buffalo (Greater Buffalo) 116.5 260 (BUF)	FSS	(716)	NF 2-6083
	WB	(716)	632-5042*
	WB	(716)	632-6952†
Elmira (Chemung County) 113.7 375 (ELM)	FSS	(716)	RE 9-2471
Glens Falls (AAS) (Warren County) 110.2 (GFL)	FSS	(518)	RX 3-2593
Islip (MacArthur Fld)	FSS	(914)	SC 3-4330
	WB	(212)	995-8659
	WB	(516)	JU 8-1060-1
	WB		OL 6-7474*
Massena (AAS) 114.1 (MSS)	FSS	(315)	RO 9-7033
New York (John F. Kennedy Intl)	IFSS	(212)	995-8659
	WB	(212)	995-9151†
New York (LaGuardia)	WB	(212)	NE 9-2118†
Poughkeepsie (Dutchess County) 112.2 (POU)	FSS	(914)	462-3400
Rochester (Monroe County) 110.0 (ROC)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391†
Syracuse (Hancock) 117.0 350 (SYR)	FSS	(315)	GL 4-2479
	WB	(315)	455-5031†
Utica (Oneida) 108.6 275 (UCA)	FSS	(315)	RE 6-9023
Watertown (AAS) 109.8 (ART) 3023.5RX	FSS	(315)	NE 9-3321

NORTH CAROLINA

Asheville 112.2 (AVL)	FSS	(704)	684-4401
	WB	(704)	648-6096
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-1019†
Durham	WB	(919)	596-2326
Elizabeth City (Coast Guard Air Station) 109.4 (ECG)	FSS	(919)	338-3808
Fayetteville (Grannis Field) 108.8 (FAY)	FSS	(919)	HE 3-3468
Greensboro	WB	(919)	299-9499†
Hickory (AAS) 110.8 (HKY)	FSS	(704)	DA 7-8281
New Bern (AAS) (Simmons-Nott) 108.4 379 (EWN)	FSS	(919)	ME 7-2080
Raleigh-Durham 117.2 350 (RDU)	FSS	(919)	787-4289
	WB	(919)	787-4092†
Rocky Mount (AAS) 117.8 (RMT)	FSS	(919)	446-6637
Wilmington (New Hanover County) 117.0 (ILM)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	724-2208†

NORTH DAKOTA

Bismarck 116.5 230 (BIS 3023.5RX	FSS	(701)	CA 3-8790
	WB	(701)	223-0920†
Dickinson (AAS) 112.9 308 (DIK)	FSS	(701)	224-2989
Fargo (Hector) 116.2 365 (FAR)	FSS	(701)	AD 5-8894
	WB	(701)	232-1584
Grand Forks (International) 109.4 (GFK)	FSS	(701)	772-3291
Jamestown (AAS) 114.5 344 (JMS)	FSS	(701)	CL 2-4350
Minot (International) 117.1 209 (MOT)	FSS	(701)	833-8112
Williston	WB	(701)	473-3198†
			(0445-2045)

FSS FREQUENCIES AND TELEPHONE NUMBERS

OHIO

Location and Frequencies		Code Area	Telephone
Akron 114.6 362 (ACO)	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246†
Canton	WB	(216)	499-7933†
Cincinnati (Lunken) 112.9 335 (CVG)	FSS	(513)	321-1434
	WB	(513)	381-8195†
	WB	(513)	381-2300*
	WB	(513)	381-6706†
Cleveland (Hopkins) 113.6 344 (CLE)	FSS	(216)	267-3700
	WB	(216)	267-3410*
	WB	(216)	267-0149
Columbus 391 (CMH)	FSS	(614)	237-8478
	WB	(614)	%
Dayton 117.5 (DAY)	FSS	(513)	898-4639
	WB	(513)	898-4620†
			(Vandalia Exchange)
Findlay 108.2 209 (FDY)	FSS	(419)	GA 2-3237
Mansfield 108.8 374 (MFD)	FSS	(614)	524-5323
	WB	(614)	522-7070
			(0600-1800)
Toledo (Express) (TOL)	FSS	(419)	242-4171
	WB	(419)	865-4472†
Youngstown 109.0 (YNG)	FSS	(216)	LI 5-8041
	FSS	(216)	856-4806
	WB	(216)	856-4801†
Zanesville (AAS) 111.4 275 (ZZV)	FSS	(614)	452-8611

OKLAHOMA

Aromore (AAS) 116.7 400 (ADM)	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage (AAS) 115.6 (GAG)	FSS	(405)	923-2601
Hobart (AAS) 111.8 (HBR)	FSS	(405)	GE 6-4234
McAlester (AAS) 112.0 (MLC)	FSS	(918)	GA 3-4091
Oklahoma City (Will Rogers) 115.0 350 (OKC)	FSS	(405)	SU 9-7452
	WB	(405)	MU 5-4433*
	WB	(405)	MU 5-6350†
Ponca City (AAS) 113.2 368 (PNC)	FSS	(405)	RO 5-5485
Tulsa 114.4 245 (TUL)	FSS	(918)	TE 8-3316
	WB	(918)	TE 5-4775†
			TE 5-2364*

OREGON

Astoria	WB	(503)	861-2722
Baker (AAS) 115.3 221 (BKE)	FSS	(503)	523-2961
Eugene (AAS) (Mahlon-Sweet) 112.9 248 (EUG)	FSS	(503)	DI 3-7738
	WB	(503)	344-0141†
Klamath Falls (Kingsley Field) 115.9 242 (LMT) 3023.5RX	FSS	(503)	TU 4-8223
	WB	(503)	TU 2-5060
			(0800-1600)
Meacham	WB	(503)	Meacham 2
			(0700-1500)
Medford 113.6 263 (MFR)	FSS	(503)	772-6523
	WB	(503)	773-1067
North Bend (AAS) 112.1 (OTH)	FSS	(503)	756-4916
Pendleton 114.7 341 (PDT) 3023.5RX	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland (International) 116.6 332 (PDX)	FSS	(503)	AT 2-7293
	WB	(503)	AT 2-2285*
	WB		%
Redmond (AAS) (Roberts Field) 117.6 368 (RDM)	FSS	(503)	548-2522

OREGON (Con't.)

Location and Frequencies		Code Area	Telephone
Roseburg	WB	(503)	[illegible]
			(0430-2030 Mar-Oct)
Salem	WB	(503)	363-6151
			(0530-2130 Nov-Apr)
The Dalles (AAS) 117.2 230 (DLS)	FSS	503	PC [illegible]

PENNSYLVANIA

Allentown (Bethlehem-Easton) 117.5 321 (ABE)	FSS	(215)	264-4339
	WB	(215)	264-[illegible]
Altoona (Blair County) 108.8 (AOO)	FSS	(814)	7[illegible]
Bradford (Bradford-McKean) 116.6 224 (BFD)	FSS	(814)	362-6660
DuBois 356 (DUJ)	FSS	(814)	DA 5-[illegible]
Erie (Port Erie) 115.7 372 (ERI)	FSS	(814)	TE 3-1345
	WB	(814)	TE 3-[illegible]
Harrisburg (Harrisburg-York State) 112.5 338 (HAR)	FSS	(717)	233-[illegible]
	WB	(717)	233-[illegible]
North Philadelphia 112.0 (PNE)	FSS	(215)	OR 5-[illegible]
	WB	(717)	SA 6-[illegible]
	WB	(717)	SA 6-[illegible]
			(0500-[illegible]
Philipsburg (AAS) (Black Moshannon) 115.5 236 (PSB)	FSS	(717)	DI 2-[illegible]
Pittsburgh (Allegheny) 117.1 254 (AGC)	FSS	(412)	HO 1-[illegible]
	WB	(412)	771-[illegible]
			(0500-[illegible]
Reading	WB	(215)	777-[illegible]
Scranton	WB	(412)	3[illegible]
			(0700-0900 Sun, [illegible]
			([illegible]
	WB	(412)	457-[illegible]
Wilkes-Barre (Wilkes-Barre Scranton) 117.8 (AVP)	FSS	(412)	GL [illegible]
	WB	(412)	457-[illegible]
			([illegible]
Williamsport (Williamsport Lycoming) 114.4 385 (IPT)	FSS	(412)	368-[illegible]
	WB	(412)	368-[illegible]
	WB	(412)	368-[illegible]
			([illegible]

RHODE ISLAND

Providence (Green) 115.6 (PVD)	FSS	(401)	RE [illegible]
	WB	(401)	737-[illegible]

SOUTH CAROLINA

Anderson (AAS) 108.6 (AND)	FSS	(803)	CA [illegible]
	FSS	(803)	CA [illegible]
Charleston 113.5 329 (CHS) 3023.5RX	FSS	(803)	SH [illegible]
	WB	(803)	SH [illegible]
	WB	(803)	[illegible]
			[illegible]
Columbia 114.7 (CAE)	FSS	(803)	AL [illegible]
	WB	(803)	7[illegible]
Florence (AAS) 115.2 (FLO)	FSS	(803)	MO [illegible]
	WB	(803)	6[illegible]
Greer	FSS	(803)	Greer [illegible]
			[illegible]
			Spartanburg [illegible]
Greenville	WB	(803)	[illegible]
			[illegible]
Myrtle Beach 116.0 (MYR)	FSS	(803)	4[illegible]
Spartanburg	WB	(803)	5[illegible]
			[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

SOUTH DAKOTA

Location and Frequencies		Code Area	Telephone
Aberdeen 113.0 329 ABR)	FSS	(605)	BA 5-5264
	WB	(605)	225-7157†
[illegible] 117.6 391 (HON)	FSS	(605)	EL 2-3806
	WB	(605)	352-2495†
			(0500-2100)
Pierre AAS) 112.5 347 (PIR)	FSS	(605)	224-5894
Rapid City 112.3 254 (RAP) 3023.5RX	FSS	(605)	FI 2-2780
	WB	(605)	347-0758
Sioux Falls 115.0 245 (FSD)	FSS	(605)	ED 8-4841
	WB	(605)	338-1441†
Watertown AAS) 116.6 (ATY)	FSS	(605)	TU 6-4581

TENNESSEE

Bristol	WB	(615)	323-8242
Chattanooga	WB	(615)	892-3747†
Crossville AAS) (Crossville-Cumberland) 117.6 (CSV)	FSS	(615)	484-6711
Dyersburg AAS) 116.8 (DYR)	FSS	(901)	AT 5-4842
			(0600-2200)
Jackson (AAS) (McKellar) 109.4 (JKS) 3023.5RX	FSS	(901)	7-0611
Johnson City	WB	(615)	323-8242
			(Blountville exchange)
Kingsport	WB	(615)	323-8242†
Knoxville (McGhee-Tyson) 116.4 257 (TYS)	FSS	(615)	577-0795
	WB	(615)	577-4805†
Memphis 115.5 371 (MEM)	FSS	(901)	398-9260 9
	WB	(901)	398-2347*
	WB	(901)	398-2672†
Nashville (Metropolitan) 114.1 304 (BNA)	FSS	(615)	AL 4-6552 3
	WB	(615)	256-0333†
Tri City (TRI)	FSS	(615)	FA 3-7242

TEXAS

Abilene 113.7 (ABI)	FSS	(915)	OR 4-6915
	WB	(915)	OR 4-8844†
Alice (AAS) 114.5 (ALI)	FSS	(512)	MO 4-4291
Amarillo (Air Terminal) 117.2 251 (AMA)	FSS	(806)	DI 9-1608
	WB	(806)	DI 9-2261
Austin (Robert Mueller) 112.5 (AUS)	FSS	(512)	GR 8-6695
	WB	(512)	GR 6-8554†
Beaumont (Jefferson County) 114.9 (BPT)	FSS	(512)	RA 2-0288
	WB	(512)	RA 2-7011†
Brownsville (Rio Grande Valley International) 116.3 388 (BRO)	FSS	(512)	LI 6-6421
	WB	(512)	LI 2-8231†
Childress 117.6 (CDS)	FSS	(817)	WE 7-3892
College Station (AAS) (Easterwood) 113.3 (CLL)	FSS	(713)	VI 6-8784 5
Corpus Christi	WB	(512)	TU 3-3008†
Cotulla AAS) 115.8 215 (COT)	FSS	(512)	TR 9-2417
Dalhart 111.0 (DHT)	FSS	(806)	CH 9-2006
Dallas (Love Field) 114.6 341 (DAL)	FSS	(214)	FL 7-2825
	WB	(214)	AN 4-3481*
	WB	(214)	RI 9-3502†
El Paso (International) 114.5 242 (ELP) 3023.5RX	FSS	(915)	PR 8-4447
	WB	(915)	778-4487*
	WB	(915)	772-3208†
Fort Worth (AAS) (Meacham) 365 (FTW)	FSS	(817)	MA 4-8444
	WB	(817)	BU 3-1571*
	WB	(817)	BU 3-3961†

TEXAS (Con't.)

Location and Frequencies		Code Area	Telephone
Galveston AAS (Scholes) 112.8 206 (GLS)	FSS	(713)	SH 4-3255
	WB	(713)	SO 3-5670†
			(2130-0530)
	WB	(713)	SH 4-2833†
			(0543-2130)
Gregg County (Longview) 112.4 (GGG)	FSS	(214)	
Houston (International) 115.9 332 (HOU) 3023.5RX	FSS	(713)	MI 5-6693
	WB	(713)	MI 4-1507*
	WB	(713)	OL 4-0178†
Junction (AAS) 116.0 (JCT)	FSS	(713)	HI 6-2561
Laredo	WB	(512)	RA 3-5584†
Lubbock 110.8 391 (LBB)	FSS	(806)	PO 2-5065
	WB	(806)	PO 2-2380†
Lufkin AAS) Angelena County) 112.1 356 (LFK)	FSS	(713)	NE 4-3544
McAllen AAS) Miller Field) 109.8 (MFE)	FSS	(512)	MU 6-2878
Midland Air Terminal) 114.8 MAF)	FSS	(713)	LO 3-2611
	WB	(713)	LO 3-0850†
Mineral Wells AAS) 117.7 284 (MWL) 3023.5RX	FSS	(713)	FA 5-5922
Odessa	WB	(915)	LO 3-0850†
			(via Midland)
Palacios AAS) 117.3 (PSX)	FSS	(713)	824-2218
Port Arthur	WB	(713)	RA 2-7011†
San Angelo Mathis) 115.1 (SJT)	FSS	(713)	655-5638
	WB	(713)	655-9750†
San Antonio International) 115.8 254 (SAT)	FSS	(512)	TA 6-6323
	WB	(512)	TA 6-0411†
Tyler Pounds) 329 (TYR)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	HI 5-1276†
Waco 115.3 ALT	FSS	(817)	PL 2-4911
	WB	(817)	PL 4-1582
Wichita Falls 112.7 294 SPS)	FSS	(817)	322-1302
	WB	(817)	322-2011
[illegible] 122.1 [illegible]	FSS	(915)	LA 7-3351

UTAH

Bryce Canyon [illegible]	FSS	(801)	TE 4 5311
Cedar City AAS) [illegible] DUC	FSS	(801)	JU 6-9131
Delta 117.6 212 DTA) 121.5 121.7	FSF	(801)	4741
			(0600-1800)
Hanksville AAS) 115.9 HVE)	FSS	(801)	Hanksville 8
Milford	WB	(801)	387-2161
			(0900-1700)
Salt Lake City Municipal 1) 116.8 227 (SLC)	FSS	(801)	524-5183
	WB	(801)	364-5571
	WB	(801)	524-5139†
Wendover	WB	(801)	2731
			(0430-2015)

VERMONT

Burlington	WB	(802)	[illegible]
Montpelier Barre-Montpelier) 108.2 257 MPV)	FSS	(802)	CA 3-[illegible]

VIRGINIA

Blackstone 326 (BKT)	FSS	(703)	292-3828
Bristol	WB	(703)	323-8241†
			(Tri-City)
Chantilly (Dulles)	WB	(703)	661-8526*
Charlottesville (Charlottesville Albemarle) (CHO)	FSS	(703)	973-3909
Danville 113.1 (DAN)	FSS	(703)	SW 3-1163
Newport News (Patrick Henry) (PHF)	FSS	(703)	877-0200
	FSS	(703)	877-0209

FSS FREQUENCIES AND TELEPHONE NUMBERS

VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Norfolk	WB	(703)	853-3014
Richmond (Byrd Field) 114.1 260 (RIC)	FSS	(703)	RE 7-8103
	WB	(703)	737-0550†
Roanoke (Woodrum) 109.4 371 (ROA)	FSS	(703)	EM 6-0011
	WB	(703)	366-2351†

WASHINGTON

Location and Frequencies		Code Area	Telephone
Bellingham 113.0 362 (BLI) 3023.5R	FSS	(206)	734-6400
Ephrata 116.8 269 (EPH)	FSS	(509)	SK 4-2361
Hoquiam (AAS) (Bowerman) 113.1 (HQM)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle (Seattle-Tacoma Int'l.) 114.5 260 (SEA)	FSS	(206)	CH 3-4200
(Boeing)	WB	(206)	PA 5-8044†
(Tacoma)	WB	(206)	CH 3-6308*
(Tacoma)	WB	(206)	CH 2-8060†
Spokane (AAS) 115.5 365 (GEG)	FSS	(509)	KE 5-2906
	WB	(509)	MA 4-5674†
Toledo (AAS) (Toledo-Winlock) 239 (TDO)	FSS	(206)	864-2371
Walla Walla (AAS) (City-County) 111.8 356 (ALW)	FSS	(509)	JA 9-1413
Wenatchee (AAS) (Pangborn) 111.0 (EAT)	FSS	(509)	TU 4-5654
Yakima 116.0 (YKM)	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Location and Frequencies		Code Area	Telephone
Beckley	WB	(304)	252-3171†
Bluefield (AAS) (Mercer County) 115.4 (BLF)	FSS	(304)	325-6521
Charleston (Kanawha) 117.4 (CRW)	FSS	(304)	[illegible]
	WB	(304)	344-1291†
Elkins (Randolph) 114.5 245 (EKN)	FSS	(304)	636-0810
	WB	(304)	636-1200†
Huntington (Tri-State) 323 (HTS)	FSS	(304)	GL 3-1412
	WB	(304)	453-3674†
Martinsburg (AAS) 112.1 209 (MRB)	FSS	(304)	AM 3-9353
Morgantown (AAS) 111.6 269 (MGW)	FSS	(304)	292-3632

WEST VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Parkersburg (Wood County) 114.2 (PKB)	FSS	(304)	[illegible]
	WB	(304)	[illegible]
		[illegible]	
		[illegible]	
Wheeling (Ohio County) 112.2 (HLG)	FSS	(304)	CH [illegible]

WISCONSIN

Location and Frequencies		Code Area	Telephone
Eau Claire (AAS) 112.9 (EAU)	FSS	(715)	TE [illegible]
Green Bay (Austin Straubel) 117.0 (GRB)	FSS	(715)	49[illegible]
	WB	(414)	49[illegible]
La Crosse (AAS) 108.4 371 (LSE) 3023.5RX	FSS	(715)	[illegible]
Lone Rock (AAS) (Tri-County 112.8 (LNR) 3023.5RX	FSS	(715)	LL [illegible]
Madison (Traux) 400 (MSN) 3023.5RX	FSS	(608)	[illegible]
	WB	(608)	[illegible]
Milwaukee (General Mitchell) 116.4 242 (MKE)	FSS	(414)	[illegible]
	WB	(414)	SH [illegible]
	WB	(414)	SH [illegible]
Wausau (AAS) 111.6 (AUW)	FSS	(715)	84[illegible]

WYOMING

Location and Frequencies		Code Area	Telephone
Casper (Casper Air Terminal) 116.2 269 (CPR)	FSS	(307)	23[illegible]
	WB	(307)	23[illegible]
Cheyenne 113.1 326 (CYS)	WB	(307)	[illegible]
	WB	(307)	[illegible]
Lander	WB	(307)	[illegible]
Laramie (AAS) (General Brees Field) 117.6 245 (LAR)	FSS	(307)	74[illegible]
Rawlins (AAS) (RWL)	FSS	(307)	32[illegible]
Rock Springs (AAS) 114.7 290 (RKS)	FSS	(307)	[illegible]
Sheridan (AAS) (Sheridan County) 115.3 239 (SHR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
		[illegible]	
Worland (AAS) (WRL)	FSS	(307)	[illegible]

AIRMAN'S INFORMATION MANUAL

AIRPORT/FACILITY DIRECTORY

SECTION IV A

EFFECTIVE 0501 Z 4 MARCH 1965

To 0501 Z 1 APRIL 1965

FEDERAL AVIATION AGENCY

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ALABAMA

.NGHAM MUNI *IFR* 4 NE (178° 2.6 NM from BHM RBN)
43 H92 5-23 (2) (S-120, T-170, TT-300) BL6, 8 S5
5, JP1, JP4 U2 RVR: Rnwy 5 FSS: BIRMINGHAM on Fld
EMARKS: Acft arresting barriers on overrun rnwy 23. Rnwy 23 threshold displaced 1761' SW. Rnwy 5 9247' lgtd full length.
OWER 118.7 126.2 122.5R 114.4T 110.3T
GND CON 121.9
APP CON 119.9 126.2 114.4T 110.3T
ADAR SERVICES:
DEP CON 124.9
TFC INFO Ctc APP CON 25 NM out.
ASR Rnwys 5, 23 Ceil 600 Vsby 1 mi Min Alt 1243. Rnwy 18 Ceil 700 Vsby 1 mi Min Alt 1343 Rnwy 36 Ceil 800' Vsby 1 mi Alt 1443.
.S 110.3 I-BHM Apch Brg 052 BC unusable
VOT: 112.0
EMARKS: Glide slope unusable below 682'.

SVILLE-MADISON CO. *IFR* 3 S (157° 6.4 NM from HSV VOR)
i9 H52 18-36 (2) (S-50, T-85, TT-130) BL4, 6, 8 S5
4, JP1, JP4 RVV: Rnwy 18 FSS: MUSCLE SHOALS (DL)
OWER 119.7 122.5R 109.0T GND CON 121.9
APP CON 125.6 122.5R 109.0T
-S 109.3 I-HSV Apch Brg 178°

:E
TES FLD *IFR* 9 W (107° 6.3 NM from MOB VORTAC)
17 H78 14-32 (3) (S-40, T-150, TT-280) BL4, 6, 8A S5
5 JP1 U2 RVV: Rnwy 14 FSS: MOBILE on Fld
EMARKS: Threshold displaced 1000' NW rnwy 32
OWER 118.3 126.2 122.5R GND CON 121.9
ADAR SERVICES: (BCN)
MOBILE APP CON[1] 118.5 126.2 123.7 122.5R 115.3T 112.8T
MOBILE DEP CON 134.1 125.7
-S 109.9 I-MOB Apch Brg 139° BC unusable
EMARKS: [1]APP CON unable to provide complete radar tfc advy svc fm BFM VORTAC 090°-110° rad.

GOMERY
INELLY FLD *IFR* 6 SW (318° 5.6 NM from MGM VORTAC)
21 H90 9-27 (3) (S-120, T-170, TT-300) BL4, 6, 8 S5
4 JP1 U2 RVR: Rnwy 9 FSS: MONTGOMERY on Fld
EMARKS: J-Bar rnwy 9-27. Restricted to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel.
OWER 119.7 126.2 122.5R 109.9T
CLRNC DEL 121.9
GND CON 121.9
ADAR SERVICES: (BCN)
MONTGOMERY APP CON 121.1 126.2 122.7R 112.1T
MONTGOMERY DEP CON 125.5 124.0
TFC INFO Ctc Montgomery APP CON on 121.1 (Low) aprx 25 mi out.
ASR Rnwy 9, 27 Ceil 400 Vsby 1 mi Min Alt 621
-S 109.9 I-MGM Apch Brg 093° BC unusable

ARIZONA

PHOENIX
SKY HARBOR MUNI *IFR* 3 E (256° 5.3 NM from PHX VOR)
1122 H103 8R-26L (2) (S-170, T-300, TT-595) BL4, 10 S5
F5 JP1 U2 VASI Rnwy 8R FSS PHOENIX on Fld
PHOENIX TOWER 118.7 126.2 122.5R 120.9 278T
CLRNC DEL 120.4 PHOENIX GND CON 121.9
PHOENIX APP CON 118.1 126.2 122.5R 115.6T
REMARKS: VOT: 109.0

TUCSON INTL *IFR* 6 S (254° 6.1 NM from TUS VOR) AOE
2630 H120 12L-30R (3) (S-100, T-200, TT-360) BL4 S5
F5, JP1, JP4 U2 FSS: TUCSON on Fld
REMARKS: 5649 ft avbl lndg rnwy 3, 6000 ft avbl rnwy 21.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.5 134.1 126.2 125.9 125.1 122.5R
DEP CON 125.9 TFC INFO ctc APP CON 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.

YUMA MCAS INTL *IFR* 3S (167° 6.0 YUMA VOR) AOE
213 H133 (3L-21R) (4) BL4, 6 S5 F4 (S-103, T-225, TT-410)
TOWER 126.2 121.5 122.5R 119.1
REMARKS: Rnwy 17-35 GWT (S-170, T-200, TT-400)

ARKANSAS

FORT SMITH MUNI *IFR* 4 SE (225° 5.2 NM from FSM VOR)
468 80H 7-25 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F-5, JP-1 U2 RVV: Rnwy 25 FSS: FORT SMITH on Fld
TOWER 118.3 126.2 122.5R GND CON 121.9
APP CON 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 253° BC unusable

HOT SPRINGS
MEMORIAL FLD *IFR* 3 SW (HOT VOR on Fld)
535 H50 5-23 (2) (S-30, T-40, TT-) BL4 S5 F4
FSS: PINE BLUFF (LC NA 4-4481)
TOWER 120.3 122.5R 110.0T 248T GND CON 121.7
HOT SPRINGS APP CON 120.3 122.5R 110.0T 248T

LITTLE ROCK
ADAMS FLD *IFR* 2E (314° 3.8 NM from LIT VOR)
257 H70/4-22 (3) (S-90, T-180, TT-) BL4, 6, 8 S5
F4, JP1, JP4 U2 RVV: Rnwy 4
FSS: PINE BLUFF (LC FR 5-2790)
TOWER 118.7 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
LITTLE ROCK APP CON 119.5[2] 126.2 124.2[3] 122.5R 113.9T
LITTLE ROCK DEP CON 118.1
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 040°
REMARKS: [1]ASR Apch not auth rnwy 17 and 14. [2]001-180° [3]181-360°

CALIFORNIA

ARCATA-EUREKA *IFR* 7 NW (
ARCATA
217 H60(2) (13-31) BL5, 6, 8, 9, 10 F4
VASI: Rnwy 13 FSS: Arcata on Fld
REMARKS: Rgt tfc rnwys 13, 19.
VHF/DF[2]
ILS[1] 109.5 I-ACV Apch brg 314°
REMARKS: [1]LMM unusable btn 120-150° beyond 5 nmi. [2]Coverage 030-060° 30 nmi at 8000'; 060-120° 30 nmi at 10,000' MSL.

BAKERSFIELD
MEADOWS FIELD *IFR* 4 NW (131° 3.4 NM from BFL VOR)
488 H57/12L-30R (2) (S-110, T-170, TT-300) BL4, 6, 8A
S5 F5, JP1 U2 RVV: Rnwy 30R
FSS: BAKERSFIELD on Fld
TOWER 118.1 126.2 122.5R 227T
GND CON 121.9 BAKERSFIELD APP CON 118.8 126.2
115.4T BAKERSFIELD DEP CON 118.8
ILS 109.9 I-BFL Apch Brg 299°

BURBANK
LOCKHEED AIR TERMINAL *IFR* 3 NW (286° 3.3 fm Glendale Rbn.)
775 H69/15-33 (2) (S-80, T-150, TT-280) BL5, 6, 8A S5
F5, JP1, 4 U2 RVV: Rnwy 7 REIL rnwy 15
FSS: LOS ANGELES (DL)
REMARKS: Rnwy 15 displaced threshold 900 ft. S 6060 ft avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 displaced threshold 410 ft N. 6550 lndg rnwy 33, tkof rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
BURBANK TOWER 118.7 126.2 122.7R [2]260T
CLRNC DEL 118.0 BURBANK GND CON 121.9
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
TFC INFO Ctc Burbank A/C on 120.9 30 mi out.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS [3]109.5 [4]I-BUR Apch Brg 076°
VHF/DF' available, contact Tower.
REMARKS: [1]Unusable beyond 30 NM below 13,000' 360°-085°; below 4000' 085°-240°; below 6000' 240°-320°; below 10,000 320°-360°. [2]To be decomsnd [3]Glide slope unusable below 1075' MSL. [4]Lclzr and glide slope will be shutdown until aprxly Mar 5.
VOT: 110.0

CONCORD
BUCHANAN FIELD 2 NW (011° 17.5 NM from OAK VOR)
19 H50/1-19 (3) (S-60, T-80, TT-130) BL4 S5 F4
FSS: OAKLAND (DL)
TOWER[1] 119.7 122.4R 326T GND CON 121.9
REMARKS: [1]Tower operates 1500Z-0700Z

FRESNO AIR TERMINAL *IFR* 5 NE (133° 7.1 NM from FAT VOR
332 H92/11-29 (3) (S-50, T-70, TT-140) BL4, 6, 8 S5
F4, JP1, JP4 RVV: Rnwys 11, 29 FSS: FRESNO on Fld
REMARKS: Rgt tfc rnwy 7 & 11
TOWER 118.7 126.2 122.7R 251T 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.6 126.9
DEP CON 126.9
ILS 110.3 I-FAT Apch Brg 288°

FRESNO-CHANDLER *IFR* 2 W (168° 9.2 NM from FAT [illegible]
283 H32/11L-29R (1) (S170 T-TT-) BL4, 6, 8A S[illegible]
U2 FSS: FRESNO
REMARKS: Arpt clsd to all tfc btn 11 pm to SR. [1]Apr[illegible] acft weighing in excess of 12500 lbs. Rgt tfc req[illegible]
CHANDLER TOWER [1]121.1 122.5R 278T
CHANDLER GND CON 121.7
RADAR SERVICES: (BCN)
FRESNO APP CON 119.6 126.9
FRESNO DEP CON 126.9
REMARKS: [1]Oper 1400-0600Z.

FULLERTON MUNI *IFR* 3 W (020° 6.5 NM from LGB VORTAC
96 H28/6-24 (1) (Max. 8) BL4, 11 S5 F4 U2
TPA: 24R 1200 REIL rnwy 24 FSS: LOS ANGELES
REMARKS: Rnwy 6 displaced threshold 437 ft E. [illegible] lndg rnwy 6. Rnwy 24 displaced threshold 263 ft E. [illegible] avbl lndg rnwy 24. Rnwy 24 apch restricted by po[illegible] glide angle 13 to 1. Rgt tfc rnwy 24. Entry alt 120[illegible] MSL.
TOWER[1] 119.1 122.6R GND CON 121.7
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
REMARKS: [1]Opers 0600-2200 daily.

HAWTHORNE MUNI *IFR* 1 E (083° 4.5 NM from LAX VORTAC
64 H45/7-25 (1) (S-30, T-40, TT-) BL4, 11 S-5 F4
REIL rnwy 25. FSS: LOS ANGELES
REMARKS: Rnwy 7 displaced threshold 1025 ft E. [illegible] avbl lndg rnwy 7. Runwy 25 displaced threshold 4[illegible] 4525 ft avbl lndg rnwy 25. Prior apvl reqd for single eng 1000 HP or more. Rnwy 25 apch restricted by pole[illegible] Angle 12 to 1. Rgt tfc E.
TOWER[1] 121.1 122.5R GND CON 121.9
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 124.3[2] 125.2[3]
REMARKS: [1]Oper 1500-0700Z. [2]045°-224°. [3]225°-044°.

HAYWARD AIR TRML *IFR* 2 SW (114° 5.9 NM from OAK [illegible]
46 H52/10R-28L (2) (S-100, T-190, TT-290) BL4 S[illegible]
FSS: OAKLAND [illegible]
REMARKS: Jet acft prohibited excp in emgcy.
TOWER 118.9 126.2 122.5R 212T GND CON [illegible]
RADAR SERVICES:
OAKLAND APP CON 118.1 126.2 116.8T
OAKLAND DEP CON 124.7 120.9 116.8T

LONG BEACH *IFR* 3 NE (274° 4.4 NM from LGB VOR
LONG BEACH (Daugherty Fld)
58 H100/12-30 (5) (S-90, T140, TT-240) BL4, 6, 8A
S5 F5, JP1, 4 U2 FSS: LOS ANGELES
REMARKS: Due non-vsby on some portions of arpt ctc [illegible] itinerant acft ctc Long Beach apch ctl regardless of [illegible] at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R [illegible]
LONG BEACH TOWER 119.5 [2]120.5 [3]126.2 [illegible]
LONG BEACH GND CON 121.9

CALIFORNIA—Continued

LONG BEACH—(Continued)
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
[1] 110.3 I-LGB Apch Brg 300°
VHF DF available, contact Tower.
REMARKS. [1]119.5 for all left rnwys. [2]120.5 for all right rnwys. Glide slope unusable below 300'
VOT: 109.0

LOS ANGELES INTL *IFR* 9 SW (071° 0.6 NM from LAX VOR)
H120 7R-25L (4) (S-150, T-200, TT-400) BL4, 6, 8A, 11 S5 FS, JP1, 4 U2 VASI: Rnwy 7R
RVV: Rnwys 6, 24, 7R L RVR: Rnwy 25 REIL rnwy 7R
FSS: LOS ANGELES on Fld
REMARKS: Rnwy 34 threshold displaced 1679 ft N. Rnwys 7L and 25R thresholds displaced 600 ft W.
TOWER 118.9 125.8 123.7[1] 122.7R
CLRNC DEL 118.6 126.85 121.4 GND CON 121.8
RADAR SERVICES:
APP CON 124.9[2] 119.3[3] 113.6T 109.9T
DEP CON 125.2[3] 124.3[2]
TFC INFO ctc APP CON 30 mi out.
PAR Rnwy 25R Ceil 300 Vsby 3/4 mi Min alt 426 Rnwy 7L Ceil 200 Vsby ½ mi Min alt 326 ASR Rnwys 6, 7R, 24, 25L Ceil 500 Vsby 1 mi Min Alt 626
[1] 109.9 I-LAX Apch Brg 248°
VHF DF avail, ctc twr.
VOT: 112.0
REMARKS: [1]Heli Operns. [2]045-224° [3]255-044° [4]Acft inbnd on final apch will descend not lower than 1300 until pilot is notified by RAPCON that he has passed arpt 4 mi from the rwy. [5]Glide slope unusable below 300 ft MSL.

LOS ANGELES (VAN NUYS)
VAN NUYS *IFR* 3 NW (BU LOM on fld)
H80 16R-34L (2) (S-50, T-70, TT-100) BL4, 11 S-5 JP4, 5 U2 REIL: Rnwy 16 FSS: LOS ANGELES (DL)
REMARKS: Rnwy 16R threshold displaced 1376 ft S. 6624 ft avbl indg rnwy 16R. Rnwy 16L-34R daylgt use only. Rnwy 16L threshold displaced 1432 ft S. 2568 ft avbl indg rnwy 16L. Parallel 2000 ft strip bet 16L-34R and 16R-34L clsd except emerg.
TOWER 120.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
VOT: 109.0

MONTEREY PENINSULA *IFR* 3 SE (096° 4.3 NM from MR COM)
H50 10-28 (2) (S-40, T-70, TT-120) BL4, 6, 8 S5 JP1 U2 FSS: SALINAS (DL)
REMARKS: Rnwy 28 has downgrade 1 ½ percent.. Lndg acft non-reversible propes ctm during hours of darkness
MONTEREY TOWER 119.9 122.5R 281T
MONTEREY GND CON 121.9
MONTEREY APP CON 120.8
MONTEREY DEP CON 120.8
[1] 110.1 I-MRY Apch Brg 096° BC unusable.
REMARKS: [1]Unusable btn LMM and apch end rnwy. Mar 15 clsr and glide slope rnwy 10 will be shutdown until Mar 26.

CALIFORNIA—Continued

OAKLAND
METROPOLITAN-OAKLAND INTL *IFR* 4 S (OAK VOR on field)
6 H100 11-29 (4) (S-100, T-160, TT-290) BL6, 8, 14, 15 S5 FS, TF1, JP4 U2 RVV: Rnwy 27R RVR: Rnwy 29
FSS: OAKLAND on Fld
REMARKS: Due non-vis of some areas ctc twr for instr. Rnwy 33 threshold displaced 2113 ft N. Rgt tfc rnwys 27R, 27L, 33 & 11.
OAKLAND TOWER 118.3 126.2 126.0 116.8T 266T
CLRNC DEL 126.6 121.1
OAKLAND GND CON 121.9 121.6
RADAR SERVICES:
OAKLAND APP CON [1]118.1 116.8T [2]120.9
OAKLAND DEP CON 124.7
TFC INFO Coll APP CON 25 mi out.
PAR Rnwy 29 Ceil 200 Vsby ½ mi Min Alt 206
ASR Rnwy 9L, 11, 27R, 29 Ceil 400 Vsby 1 mi Min Alt 406
ILS 108.7 I-INB Apch Brg 293° 109.9 I-OAK Apch Brg 275° BC unusable
VHF DF[3] available, contact Tower.
REMARKS: [1]271-089° [2]090-270° [3]Unusable below 6000' MSL 360-050°, beyond 20 nmi.
VOT: 110.2

ONTARIO INTL *IFR* 2 E
952 H100 7-25 (2) (S80, T120 TT220) BL6, 8A S5
FS, JP1, 4 U2 RVV: Rnwy 25 FSS: ONTARIO on Fld
REMARKS: Rnwy 7 threshold displaced 1000 ft E. 1000 ft overrun E end rnwy 7-25.
TOWER 118.5 126.2 122.5R CLRNC DEL 123.6
GND CON 121.9
RADAR SERVICES: (BCN)
MARCH APP CON 120.8 122.5R 111.4T
MARCH DEP CON 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255°

OXNARD
VENTURA COUNTY *IFR* 1 W (261° 5.5 NM from CAV RBN)
43 H59 7-25 (1) (S-100, T-135, TT-) BL4, 11 S5 F4, JP4 REIL rnwy 25. FSS: SANTA BARBARA (DL)
REMARKS: Rnwy 25 Threshold Displaced 1377 ft W. 4570 ft avbl lndg rnwy 25. Rnwy 7 Threshold 750 ft E. 5197 ft avbl lndg rnwy 7.
TOWER 120.7 122.5R[1] GND CON 121.9
APP CON 124.7 122.5R
REMARKS: [1]To be replaced by 122.4 March 15.

SACRAMENTO MUNI *IFR* 3 SW (015° 4.4 NM from SAC VOR
21 H60/2-20 (3) (S-90, T-120, TT-180) BL4, 6, 8 S5
FS, JP4 U2 RVV: Rnwy 2 FSS: SACRAMENTO on Fld
REMARKS: Rnwy 16 apch restricted by antenna-glide angle 12 to 1. 2500' apch lgtg.
TOWER 119.5 126.2 122.5R 260T[3] GND CON 121.9
RADAR SERVICES:
APP CON 119.1 [1]134.1 123.6 [2]122.5R
DEP CON 124.5
ILS 110.3 I-SAC Apch Brg 015°
REMARKS: [1]Below 5000'. [2]5000' or above. [3]To be decomsnd Mar. 12.

CALIFORNIA—Continued

SAN DIEGO CO-GILLESPIE FIELD 10 NE (065° 13.3 from SAN VOR)
385 H53/9-27 (2) (S-60, T-80, TT) BL4 S5 F4
U2 FSS: SAN DIEGO (LC 296-3181)
REMARKS: Rnwy 27 threshold displaced 1300 ft W. 4040 ft avbl lndg rnwy 27. Rnwy 17-35 restricted to acft under 12,500 lbs gwt.
GILLESPIE TOWER[1] 120.7 122.7R 379T
GILLESPIE GND CON 121.7
REMARKS: [1]Tower operates 1400-0600Z

SAN DIEGO INTL-LINDBERGH FLD *IFR* 2 W (LIF VOR on fld) AOE
15 H87/9-27 (2) (S-100, T-200, TT-400) BL5, 6, 8A, 9, 11
S-5 F5, JP1 U2 REIL: Rnwy 27 FSS: SAN DIEGO on Fld
REMARKS: Rnwy 27 threshold displaced 600 ft W. 8100 ft avbl lndg rnwy 27. Rnwy 31 apch restricted by poleline-glide angle 5 to 1.
TOWER 118.3 126.2 122.5R 109.6T 245T GND CON 121.9
RADAR SERVICES: (BCN)
SAN DIEGO APP CON 119.6 127.7 126.2 125.7[1] 125.3[2] 122.7R 218T
SAN DIEGO DEP CON 125.7[3] 125.3[4]
TFC INFO Contact A/C over Oceanside, Jamul, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I-SAN Apch Brg 091°
REMARKS: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure.
VOT: 109.0

SAN FRANCISCO INTL *IFR* 8 SE (SFO VOR on fld)
10 H97(10L-28R) (4) (S-200, T-200, TT-400) BL6, 8A, 10, 11, 12 S-5 F5, JP1 U2 VASI: Rnwy 19L RVV: Rnwys 1, 19 RVR: Rnwy 28R FSS: OAKLAND (DL)
REMARKS: Ctc twr for preferential rnwy system under VFR conditions. Rnwy 28R displaced threshold 200 ft NW. 9496 ft avbl lndg rnwy 28R. Rnwy 1R displaced threshold 1100 ft NE. 8400 ft avbl lndg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop. Ctc twr for taxiing instr.
TOWER 120.5 126.2X 122.7R 121.4
GND CON 121.8
RADAR SERVICES:
APP CON 124.9[1] 126.2X 119.3[2] 111.2T 109.5T
DEP CON 124.4 128.5
PAR Rnwy 28L Ceil 300 Vsby 3/4 mi Min Alt 310.
Rnwy 28R Ceil 200 Vsby 1/2 mi Min Alt 210.
ASR Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 510.
Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 410.
ILS 109.5 I-SFO Apch. Brg 281°
VHF/DF available, contact tower.
REMARKS: [1]315°-134°, [2]135°-314°, PAR svc not avbl to rnwy 28L UFN.
VOT: 111.0

CALIFORNIA—Continued

SAN JOSE MUNI *IFR* 2 NW (SJC VOR on fld)
56 H78/12R-30L (2) (S-60, T-90, TT-) BL6, 8 SS
F4, JP1 U2 RVV: Rnwy 30L FSS: OAKLAND
REMARKS: Rnwy 30L threshold displaced 1475 ft NW. 8[illegible] ft avbl lndg rnwy 30L. Twr unable to see txwy A crs NE patn.
TOWER 120.7 122.4R 248T GND CON
RADAR SERVICES: (BCN)
MOFFETT APP CON 120.1 123.7 122.4R 110.3T
MOFFETT DEP CON 121.3 122.4R 108.2T
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
REMARKS: IFF svc avbl

SANTA ANA
ORANGE COUNTY *IFR* 4 S (SNA VOR on fld)
53 H49/1L-19R (2) (S-30, T-40, TT) BL4, 6 S-5 F
U2 FSS: LOS ANGELES
REMARKS: Limited itinerant parking.
TOWER[1] 119.9 122.5R GND CON
RADAR SERVICES: (BCN)
EL TORO APP CON 121.3 134.1 124.1X 122.5R
EL TORO DEP CON 121.3
REMARKS: [1]Operates 0600-2300

SANTA BARBARA MUNI *IFR* 7 W (197° 5.5 NM from SBA VOR)
14 H47/7-25 (3) (S-40, T-71, TT-117) BL4, 6, 8 SS
F5, JP5, U2 RVV: Rnwy 7
FSS: SANTA BARBARA
REMARKS: Apch lgts 2900 ft long. Rnwy 25 overrun [illegible] Rnwy 25 threshold displaced 296 ft W 4420 ft avbl lndg rnwy 25.
TOWER 119.7 122.7R 110.3T 338T GND CON
APP CON 125.4
ILS[1] 110.3 I-SBA Apch Brg 073°
REMARKS: [1]LMM unusable beyond 2 nmi 289-048°.

SANTA MONICA MUNI *IFR* 3 E (SMO VOR on field)
175 H50/3-21 (1) (S-90, T-120, TT-) BL4 11 SS F
JP5 U2 REIL: rnwy 21 VASI: rnwy 21
FSS: LOS ANGELES
REMARKS: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free [illegible] 6 hrs. Rgt tfc rnwy 3.
TOWER 120.3 122.6R GND CON
RADAR SERVICES:
LOS ANGELES APP CON 124.9[1] 119.3[2] 113.6T
LOS ANGELES DEP CON 124.3[1] 125.2[2]
REMARKS: [1]045°-224°, [2]225°-044°
VOT: 110.2

SANTA ROSA
SONOMA COUNTY *IFR* 6 NW (349° 25.5 NM from PYE VOR)
125 H50/1-19 (2) (S-80, T-130, TT-220) BL4 SS F4
U2 FSS: OAKLAND
TOWER[1] 118.5 122.5R GND CON
REMARKS: [1]Operates 1400-0600Z

CALIFORNIA—Continued

TON METROPOLITAN *IFR* 3 S (304° 4 NM from SCK VOR)
H66 11 L-29R (4) (S-100, T-200, TT-400) BL6 S5
, TF1 U2 FSS: STOCKTON on Fld
WER 120.3 122.5R 230T[1] GND CON 121.9
DAR SERVICES:
APP CON 125.1 116.0T 109.1T 230T[1]
S 109.1 I-SCK Apch Brg 291° BC Unusable
MARKS: [1]To be decomsnd Mar 12.

VALLEY
E TAHOE 2 SE
53 H85(1) BL4 F4 U-1 FSS: Sacramento (DL)
MARKS: Surrounded by mtns. Tiedowns avbl.
WER: 119.0 122.5R GND CON: 121.9

NCE MUNI *IFR* 3 SW (135° 8.6 NM from LAX VOR)
I H50 11L-29R (2) (S-30, T-50, TT-80) BL4 S5 F4
TPA: 29R 800 FSS: LOS ANGELES (DL)
MARKS: Both ends rnwy 11L-29R displaced thresholds 50 ft. 4450 ft avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
WER[1] 118.1 122.5R GND CON 121.7
DAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 125.2[3] 124.3[2]
LONG BEACH DEP CON 127.2
MARKS: [1]Tower oper 0600-2200 lcl time daily. [2]045°-224°. [3]225°-044°.

COLORADO

ADO SPRINGS
ERSON FIELD *IFR* 6 SE (PEF VOR on fld)
2 H91/17-35 (3) (S-125, T-200, TT-400) BL4, 6, 8 S5
, JP1, 4 RVR: Rnwy 35 FSS: DENVER (LC ME4-3127)
WER 119.9 126.2 122.5R GND CON 121.7
DAR SERVICES:
COLORADO SPRINGS APP CON 118.5 126.2 122.5R
109.9T
COLORADO SPRINGS DEP CON 120.2
TFC INFO Ctc APP CON 20 mi out.
RAR Rnwy 35 Ceil 200 Vsby 1 2 mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
1 109.9 I-COS Apch Brg 346°
F DF[2] available, contact tower.
MARKS: 1 Glide slope unusable MM to touchdown. 2 Coverage 30 nmi at MEA except 24 nmi 340-055° and 15 nmi 245-270° from facil.

R
LETON AIRFIELD *IFR* 4 E (213° 8.1 NM from DEN VOR)
1 H115/17-35 (4) (S-120, T-200, TT-350) BL4, 6, 8, 9, 11, 15 S5 F5, JP1 VASI: Rnwys 8R, 17 RVV: Rnwy 35 R: Rnwy 26L REIL: Rnwy 17 FSS: DENVER on Fld
MARKS: Twr unable to determine whether acft are on correct final apch to rnwys 8L-26R and 8R-26L.
WER 118.3 126.2 119.3 122.5R
ND CON 121.9 121.7
DAR SERVICES:
DENVER APP CON 119.5[1] 126.2 122.5R 120.5[2] 116.3T 110.3T 108.1T

COLORADO—Continued

DENVER (Continued)
DENVER DEP CON 124.8
TFC INFO Ctc APP CON 20 mi out.
ASR Rnwys 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I-DEN Apch Brg 256° 108.1 I-SPO Apch Brg 349°
VHF DF available contact tower.
REMARKS: [1]270°-089°. [2]090°-269°.
VOT: 111.0

GRAND JUNCTION
WALKER FIELD *IFR* 3 NE (110° 9.6 NM from GJT RBN)
4857 H54 11-29 (2) (S-60, T-80, TT-120) BL2, 4, 6, 7
S5 F4 JP1 U2 REIL: rnwy 29
FSS: GRAND JUNCTION on Fld
REMARKS: Rnwy 4-22 restricted to acft over 12,500 lbs.
TOWER 118.1 122.5R GND CON 121.9
GRAND JUNCTION APP CON 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I-GJT Apch Brg 110°
REMARKS: Glide slope unusable 5158' and from 3.4 nmi to rnwy threshold.

PUEBLO MEML *IFR* 5 E (248° 2.4 NM from PUB VOR)
4725 H85 7-25 (3) (S-90, T-129, TT-216) BL4, 6, 8 S5
F5 RVV: Rnwy 7 FSS: PUEBLO on Fld
TOWER 119.1 126.2 122.5R GND CON 121.9
APP CON 120.1 126.2 119.1 116.7T
ILS 109.5 I-PUB Apch Brg 075°

CONNECTICUT

BRIDGEPORT MUNI *IFR* 3 SE (BDR VOR on fld)
9 H47 11-29 (3) (S-35, T-45, TT-) BL4, 6 S5 F5, JP1, 4 U2 FSS: WINDSOR LOCKS (LC ED 5-6097)
REMARKS: Apch to rnwys 16, 29 blkd by trees.
TOWER 120.9 122.5R 108.8T GND CON 121.9
WESTCHESTER APP CON 121.2 122.5R 3023.5RX

EAST HARTFORD
RENTSCHLER FIELD *IFR* 1 E (347° 7 NM from HFD VOR)
45 H58 18-36 (3) (S-46, T-75, TT-130) BL4, 11 S5 F4
REIL: Rnwys 4, 18, 22, 32, 36 FSS: WINDSOR LOCKS (DL)
REMARKS: Clsd to public. US Customs-lndg rights arpt. Rnwy 18 apch restricted by poleline-glide angle 8 to 1. Attended 7am to midnite.
TOWER 119.9 126.2 GND CON 121.9
RADAR SERVICES:
BRADLEY APP CON 119.4 124.6 122.5R
BRADLEY DEP CON 125.35
REMARKS: [1]Twr oper 0200-1800Z

WINDSOR LOCKS
BRADLEY FIELD *IFR* 3 W (058° 4.5 NM from BD LOM)
173 H95 6-24 (3) (S-100, T-200, TT-400) BL4, 6, 8 S5
F5, JP4, 5 U2 FSS: WINDSOR LOCKS on Fld
REMARKS: Rnwy 6-24 A-Gear both ends.
TOWER 120.3 126.2 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 119.4 124.6 122.5R
DEP CON 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I-BDL Apch Brg 058°
REMARKS: Glide slope rnwy 6 unusable below 373 ft.

DELAWARE

WILMINGTON

GREATER WILMINGTON *IFR* 4 S (EWT VOR on fld)
79 H70/1-19 (3) (S-200, T-300, TT-500) BL4, 6, 8 S5
F4, JP1 U2 FSS: MILLVILLE (LC 652-5419)
REMARKS: ILS apch zone rnwy 1 has penetrations in the 50:1 plane. Rnwy 5-23 clsd acft over 12, 500 lbs.
NEW CASTLE TOWER 120.3 122.5R 110.3T
NEW CASTLE GND CON 121.9
NEW CASTLE APP CON 125.0 110.3T
ILS 110.3 I-ILG Apch Brg 014° BC unusable
VHF/DF available, contact tower

DISTRICT OF COLUMBIA

WASHINGTON

DULLES INTL *IFR* 21 W (186° 7.3 NM from PLV RBN)
313 H115/1L/19R (3) (S-200, T-290, TT-500) BL6, 8A, 10, 14, 15 S5 F5, JP1, 5 U2 VASI: Rnwy 12
RVR: Rnwy 1R FSS: WASHINGTON (DL)
TOWER 119.7 122.7R
CLRNC DEL 127.4 GND CON 121.65 121.9
RADAR SERVICES: (BCN)
APP CON 119.2 126.1
DEP CON 125.55
PAR Rnwy 1R Ceil 200 Vsby 1/2 mi Min Alt 513
ASR Rnwys 1R, 1L 12, 19R 19L, 30 Ceil 400 Vsby 1 mi
ILS 111.3 I-DLX Apch Brg 186 109.3 I-DIA Apch Brg Min Alt 713
006°

WASHINGTON NATIONAL *IFR* 3 S (DCA VOR on fld)
15 H69/18-36 (3) (S-100, T-200, TT-400) BL4, 6, 8A, 10, 11, 14, 15 S5 F5, JP1 U2 VASI: Rwy 15
RVV: Rnwys 18/15 RVR: Rnwy 36
FSS: WASHINGTON on Fld
REMARKS: No acft over 120,000 lbs w/o prior apvl. Very limited parking.
TOWER 119.1[1] 122.5R
CLRNC DEL 127.7 GND CON 121.7
RADAR SERVICES:
APP CON 120.8[2] 134.1[3] 127.0 122.5R 118.3[1] 109.9T 3023.5R 278T
DEP CON 118.1[1] 126.55[2]
TFC INFO Ctc APP CON on 119.3 120.1
PAR Rnwy 36 Ceil 200 Vsby 1/2 mi Min Alt 215
ILS 109.9 I-DCA Apch Brg 003° BC unusable
VHF/DF available, contact tower
REMARKS: [1]West [2]East [3]Andrews Sector. Circling. PAR avbl on 15 min notice durg VFR wx conditions.
VOT: 108.2

FLORIDA

DAYTONA BEACH MUNI *IFR* 3 SW (156° 7.4 NM from DAB VOR)
34 H57/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5
F4, JP1 U2 FSS: ORLANDO (LC255-4767)
TOWER 120.7 126.2 122.5R 353T GND CON 121.9
APP CON 123.9 122.5R 112.6T 109.7T
ILS 109.7 I-DAB Apch Brg 065°

FLORIDA—Continued

FT LAUDERDALE-HOLLYWOOD INTL *IFR* 3 SW (FLL VOR on fld) AOE
10 H74/9-27 (3) BL4 S5 F5, JP1 U2
FSS: MIAMI (LC 524-8
REMARKS: Rnwy 9-27 thresholds displaced 600 ft both ends
FORT LAUDERDALE TOWER 119.3 122.5R 111.4T
FORT LAUDERDALE GND CON 121.7
RADAR SERVICES: (BCN)
MIAMI APP CON 123.9 119.7
MIAMI DEP CON 123.9 119.7

HOLLYWOOD

NORTH PERRY 5 W (224° 6.2 NM from FLL VOR)
9 H31/4-22 (4) BL4 S5 F4
FSS: MIAMI (LC 524-8
TOWER[1] 121.3 122.4R
REMARKS: [1]Oper 1200-0200Z daily. Oper by county.

JACKSONVILLE

IMESON *IFR* 5 N (250° 3.5 NM from JAX VOR)
52 H79/5-23 (3) (S-105, T-137, TT-205) BL4, 6, 8A S5
F5, JP4 U2 RVV: Rnwy 5 FSS: JACKSONVILLE
REMARKS: Caution on ILS apchs. Brightly lighted bridge 1 1/4 mi SW of apch end of rnwy 5 could give false impres of being a rnwy dur poor vis conditions. Rnwy 18-36 oper dolgt VFR operns. 1500' apch lgt sys rnwy 5.
JACKSONVILLE TOWER 118.3 126.2 122.5R 110.3T
JACKSONVILLE GND CON 121.9
RADAR SERVICES: (BCN)
JACKSONVILLE APP CON 119.0 126.2 122.5R 12[illegible] 114.5T 110.3T
JACKSONVILLE DEP CON 124.9 126.2
TFC INFO Ctc APP CON on 119.0 25 mi out
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 4[illegible] Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
ILS[1] 110.3 I-JAX Apch Brg 045° BC unusable
VHF/DF available, contact tower
VOT: 111.0
REMARKS: [1]Glide slope unusable below 150'.

KEY WEST INTL *IFR* 2 E (137° 1.7 NM from EYW VOR) A
4 H48/9-27 (1) (S-30, T-40, TT-) BL4 S3 F4
FSS: KEY WEST
REMARKS: Fee for commercial and hired acft only. Rq[illegible] rnwy 9
TOWER[1] 119.5 122.5R
GND CON 121.9 VFR ADV Ctc Key West rdo 030[illegible]
NAVY KEY WEST APP CON 118.7 126.2 122.5R
REMARKS: [1]Oper 1100-0300Z

LAKE CITY MUNI 3 E (182° 19NM from TAY VOR)
202 H68/10-28 (5) BL4 F4 U1
FSS: GAINES[illegible]
TOWER [1]126.2 122.8R
REMARKS: [1]Oper 1300-2130 Mon-Fri; Controls Military Traffic Only

JURNE
N F KENNEDY MEML *IFR* 2 NW (MLB VOR on Fld)
: H1'2 9-27 (3) (S-30, T-40, TT) BL4 S5 F4, JP5
FSS: MELBOURNE on Fld
EMARKS: 9603' rnwy 9-27 available ngts, displaced
hreshold rnwy 27 1589' W
ELBOURNE TOWER[1] 118.2 122.7R
ADAR SERVICES:
PATRICK APP CON 118.4
PATRICK DEP CON 118.4
EMARKS: [1]Oper 1145-0400Z daily

INTL *IFR* 8 NW (138° 13.2NM from MIA VOR AOE
H135 9L-27R (4) (S-200, T-200 TT-400) BL4, 6, 8A, 10
F5, JP1, 5 VASI: Rnwy 12 RVV: Rnwys 9L, 27L
FSS: MIAMI on Fld
EMARKS: Fee.
)WER 118.3 126.2 122.4R CLRNC DEL 127.5
GND CON 121.8
ADAR SERVICES: (BCN)
APP CONN 118.1[1] 123.7[2] 122.4R
DEP CON 123.9 119.7
TFC INFO Ctc Twr 20 mi out or remain above 2500'.
ASR Rnwys 9L, 12, 27L, 27R Coil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Coil 400 Vsby 1 mi Min Alt 409
.S 110.3 I-MFA [2]Apch Brg 086° 109.5 I-MIA 4 Apch Brg 266°
HF DF available, contact Tower.
EMARKS: [1]090°-269° [2]270°-089°, 1400' MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]LOM unreliable beyond 15 nmi radius [4]Glide slope rnwy 27 unusable below 175' MSL.
OT 112.0

LOCKA *IFR* 10 NW (107° 9.8 NM from MIA VOR)
H80 9L-27R (5) BL4, 6 S5 F5, JP1
FSS: MIAMI (LC 634-7687)
EMARKS: Displaced thresholds all rnwys except 9L-27R.
Birds in vcnty and on rnwys.
)WER [1]120.7 122.7R GND CON 121.9
ADAR SERVICES: (BCN)
MIAMI APP CON 123.7 118.1
MIAMI DEP CON 123.9 119.7
EMARKS: [1]Oper 1100-0300Z.

IAMI 8 W (159° 14 NM from MIA VOR)
H38 14-32 (3) BL4 S5 F4 FSS: MIAMI (LC 634-7687)
EMARKS: Rgt tfc rnwys 9, 14.
)WER 121.1 122.6R GND CON 121.7
ADAR SERVICES:
MIAMI DEP CON 123.9[1] 119.7[2]
EMARKS: [1]270°-089° [2]090°-269°.

ORLANDO
HERNDON *IFR* 3 E (ORL VOR on Fld)
113 H60 7-25 2) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 RVV: Rnwy 7 FSS: ORLANDO on Fld
REMARKS: NW-SE rnwy NW lndg 5178' avbl, SE 5010' avbl.
TOWER 118.7 126.2 122.5R 112.2T 109.9T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
ORLANDO APP CON 119.4 124.8 122.5R 112.2T 109.9T ORLANDO DEP CON 121.1
TFC INFO Ctc APP CONN on 124.8 25 mi out.
ASR Rnwys 7,13 Coil 500 vsby 1 mi Min Alt 613. Rnwys 25, 31 Coil 400 vsby 1 mi Min Alt 513
ILS 109.9 I-ORL Apch Brg 066°

PENSACOLA MUNI *IFR* 3 NE (343° 1.8 NM from PNS RBN
118 H50 16-34 (2) (S-60, T-80, TT) BL4, 6, 8 S3
F4, JP1 U2 RVV: Rnwy 16 FSS: PENSACOLA on Fld
TOWER 119.9 126.2 122.5R 109.5T 326T
GND CON 121.9
RADAR SERVICES:
APP CON 123.9[1] 134.1 122.7R 120.1 119.0[2]
DEP CON 119.0[2] 134.1 123.9[1]
TFC INFO Ctc APP CON on 119.0 for acft Eastbound or arriving fm the East or on 123.9 for acft Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163°
REMARKS: [1]West [2]East

ST AUGUSTINE
FAIRCHILD - ST AUGUSTINE 3 N (118° 32.8 NM from NZC VOR)
10 H65 13-31 (2) S5 F5
FSS: JACKSONVILLE (LC EL5 3601)
REMARKS: Rnwy 2-20 and 6-24 clsd to acft over 12,500 lbs when twr not in opern.
TOWER[1] 126.2 123.1 122.5R
REMARKS: [1]Oper 1230-2115Z Mon-Fri

ST PETERSBURG-CLEARWATER INTL *IFR* 8 N (PIE VOR on Fld)
10 H80 17-35 (3) (S-60, T-120, TT-240) BL4, 6, 8 S5
F5, JP4 U2 RVV: Rnwy 17 FSS: TAMPA (DL)
REMARKS: Rnwy 4-22 clsd to night ops UFN.
TOWER 118.3 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 116.0T 108.4T TAMPA DEP CON 126.5
ILS[1] 109.1 I-PIE Apch Brg 170°
REMARKS: [1]Glide slope unusable below 110'.

SARASOTA - BRADENTON *IFR* 3 N (SRQ VOR on FLD
24 H50 13-31 (3) (S-30, T-40, TT) BL4, 6 S5
F5, JP1 U2 FSS: TAMPA (DL)
REMARKS: Rnwy 9-27 and Txwy Btn Rnwys 31 & 32 clsd to acft in excess 12,500 lbs.
TOWER [1]120.1 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T TAMPA DEP CON 126.5
REMARKS: [1]Oper 1100-0300Z.

FLORIDA—Continued

TALLAHASSEE MUNI *IFR* 4 SW (140° 2.4 NM from TLH RBN
81 H61/18-36 (2) BL4, 6, 8 S5 F4, JP4 U2
RVV: Rnwy 36 FSS: TALLAHASSEE on Fld
TOWER 118.7 126.2 122.5R 117.5T 110.3T
CLRNC DEL 121.9 GND CON 121.9
APP CON 118.1 122.5R 117.5T 110.3T
DEP CON 118.1
ILS[1] 110.3 I-TLH Apch Brg 358°
VOT: 111.0
REMARKS: [1]Lclzr unusable above 4000′ MSL.

TAMPA INTL *IFR* 3 W (063° 8.7 NM from PIE VOR AOE
27 H83/18L-36R (3) (S-80 T-120, TT-270) BL4, 6, 8A, 14
S3 F5, JP1, 4, 5 RVR: Rnwy 18L FSS: TAMPA on Fld
REMARKS: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 Lbs Gwt.
TOWER 119.9 126.2 122.5R 110.3T
GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T
DEP CON 126.5
ILS[1] 110.3 I-TPA Apch Brg 181°
VOT: 111.0
REMARKS: [1]Glide slope unusable below 150′.

WEST PALM BEACH
PALM BEACH INTL *IFR* 3 W (095° 2.8 NM from PBI VOR AOE
19 H80/9-27 (2) (S-95, T-200, TT-350) BL4, 6, 8A S5
F5, JP4 RVV: Rnwy 9 FSS: MIAMI
REMARKS: Rgt tfc rnwys 9 and 13.
TOWER 119.1 126.2 122.7R 115.5T 109.3T 356T
GND CON 121.9
APP CON 118.0 122.7R 115.5T 109.3T 356T
ILS[1] 109.3 I-PBI Apch Brg 093°
VOT: 109.0
Remarks: [1]Glide slope unusable below 150′.

GEORGIA

ATLANTA MUNI *IFR* 3 E (016° 8.1 NM from ATL VOR)
1024 H88(15-33) (4) (S-120, T-, TT) BL5, 6, 8A, 9 S5
F5, JP1 U2 VASI: Rwy 27 RVR: Rwy 9
FSS: ATLANTA (LC 344-1551)
REMARKS: Aprxly 2100′ of W end rnwy 9R-27L not visible from ctl twr.
TOWER 119.1 122.7R CLRNC DEL 121.6
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.7[1] 118.1[2] 109.9T 109.3T
TERM CON 119.3 (S of V18N) 119.8 (N of V18N)
DEP CON 125.7
TFC INFO Inbnd acft ctc app con 25 NM out.
PAR Rwy 9 ceiling 200 vsby ½ mi min alt 1224.
ASR Rwys 3: 27L. 27R. 33 ceiling 400 vsby 1 mi min alt 1424. Rwys 9L, 9R, 15 ceiling 500 vsby 1 mi min alt 1524.
ILS[3] 109.9 I-ATL Apch brng 089° BC unusable 109.3
I-AZA Apch brng 329° BC unusable 110.5
I-ALR Apch brng 089°
REMARKS: [1]270-089° [2]090-269° [3]Glide slope rnwy 33 unusable below 1085′ MSL.

GEORGIA—Continued

ATLANTA
DEKALB-PEACHTREE *IFR* 8 NE (241° 9.7 NM from [illegible]
1002 H40/16-34 (3) (Max 30) BL4, 6, 8 S5 F4, JP4
FSS: ATLANTA (LC [illegible]
REMARKS: Ctl twr unable to see first 850′ rnwy 9.
PEACHTREE TOWER [1]121.3 122.5R
PEACHTREE GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
REMARKS [1]Oper 1200-0400Z.

ATLANTA
FULTON COUNTY *IFR* 6 W (FTY VOR on Fld)
834 H52/8-26 (2) (Max 22) BL4 S5 F5, JP4
FSS: ATLANTA [illegible]
TOWER 118.5 122.6R 245T GND CON [illegible]
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
VHF/DF available, contact Atlanta area radio.

AUGUSTA
BUSH FIELD *IFR* 6 S (128° 6.4 NM from AGS RBN)
145 H80/17-35 (2) (S-90, T-120, TT) BL4, 6, 8 S5
FT, JP1, 4 U2 FSS: AUGUSTA [illegible]
AUGUSTA TOWER 118.7 126.2 122.5R 110.5T
AUGUSTA GND CON 121.9
AUGUSTA APP CON 125.4 122.5R 113.9T 110.5T 385T
ILS[1] 110.5 I-AGS Apch brng 348° BC unusable
REMARKS: [1]Glide slope unusable below 245′ MSL.

COLUMBUS
MUSCOGEE COUNTY *IFR* 4 NE (147° 6.8 NM from CSG [illegible]
397 H50/5-23 (2) (S-60, T-80, TT) BL4, 6 S5
F5, JP5 U2 FSS: ATLANTA (LC 322-[illegible]
REMARKS: Rnwy 12 clsd to ngt lndgs. Rnwy 30 clsd to tkofs.
COLUMBUS TOWER 120.1 122.5R
COLUMBUS GND CON 121.9
COLUMBUS APP CON 125.3 122.5R 110.3T 335T
ILS[1] 110.3 I-CSG Apch brng 052° BC unusable
REMARKS: [1]Glide slope unusable below 697′.

MACON MUNI *IFR* 9 S (MCN VOR on Fld)
354 H50/5-23 (2) (S-60, T-, TT) BL4, 6, 8 S3
F5, JP1 U2 FSS: MACON [illegible]
TOWER 118.3 122.5R 109.5T GND CON 121.7
RADAR SERVICES: (BCN)
APP CONN 119.6 134.1 124.2 122.7R 114.2T
DEP CON 124.8
ASR Rwys 5, 13, 23 ceiling 500 vsby 1 mi min alt 854.
ILS[1] 109.5 I-MCN Apch brng 047° BC unusable
VHF/DF available, contact Macon FSS.
REMARKS: [1]Glide slope unusable below 450′ MSL.

GEORGIA—Continued

NAH
VIS FIELD *IFR* 7 NW (246° 4.3 NM from SAV VOR
H90 9-27 (3) (S36, T62, TT106) BL 4, 6, 8A, 9 S5
JP5 RVV: Rwy 9 FSS: SAVANNAH on Fld
MARKS: Rnwy 27 threshold displaced 400'. Rnwy 5-23 clsd all acft in excess 12,500' lbs GWT.
VANNAH TOWER 119.1 126.2 122.5R 110.1T
SAVANNAH GND CON 121.9
DAR SERVICES: (BCN)
SAVANNAH APP CON 125.3 126.2 122.7R 121.1
112.7T 3023.5Rx
SAVANNAH DEP CON 125.7
S 109.9 I-SAV Apch brng 092°
MARKS: VOT: 111.0

•••IDAHO•••

AIR TERMINAL *IFR* 3 S (BOI VOR on Fld)
58 H90(10R-28L) (2) (S100, T-185, TT-300) BL4, 6, 8
F5, JP1, 4 U2 RVV: Rnwy 10L
FSS: BOISE on Fld
MARKS: Rgt tfc rnwys 10R, 28R
WER 118.1 126.2 122.5R GND CON 121.7
APP CON 120.5 126.2 122.5R 118.1 113.3T 109.9T
S 109.9 I-BOI Apch brng 096°

FALLS
ING FIELD *IFR* 2 NW (IDA VOR on Fld)
19 H75/2-20 (2) (S-30, T-90, TT-150) BL5, 6 S5
JP5 FSS: IDAHO FALLS on Fld
MARKS: Rnwy 20 threshold displaced 930 ft SW. 6600 ft avbl lndg rnwy 20. Rnwy 16 threshold displaced 655ft S. 1495 ft avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
WER [1]118.5 122.5R 206T GND CON 121.7
MARKS: [1]Oper 1400-0600Z

ELLO MUNI *IFR* 7 NW (032° 3.1 NM from PIH VOR)
48 H82/3-21 (3) (S30, T80, TT130) BL5, 6, 9, 12 S5 F4
RVV: Rwy 21 FSS: POCATELLO on Fld
WER 119.1 122.5R GND CON 121.9
S 110.3 I-PIH Apch brng 207°

•••ILLINOIS•••

CHAMPAIGN
UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4 SSW (CMI VOR on field)
753 H53 13-31 (3) (S75, T100, TT) BL4 S5 F4, JP1
U2 FSS: CHAMPAIGN on Fld
REMARKS: use rnwys - turf usable by permission.
CHAMPAIGN TOWER 120.5 122.5R 3023.5Rx 233T
CHAMPAIGN GND CON 121.9
CHAMPAIGN APP CON 119.8 122.5R 120.5 110.0T
233T
ILS 109.1 I-CMI Apch brng 313°

CHICAGO (West Chicago)
DUPAGE COUNTY *IFR* 3 NW (069° 4.3 NM from DPA VOR)
758 H40 10-28 (3) (Max-15) BL4, 9° S5 F4 U2
FSS: JOLIET (DL)
REMARKS: *Non-standard, 1000' down cntr-line. Rnwy 5-23 clsd to all twin eng acft in winds blo 15 kts. All taxwys lgtd until 10 PM.
TOWER 120.9 122.5R 342T
GND CON 121.7
REMARKS:[1] TWR oper 1200-0400Z.

CHICAGO
MERRILL C MEIGS FIELD 1 E (117° 15.1 NM from ORD VOR
592 H39 18-36 (1) (MAX 15) BL6 11 F4 JP1 U2
REIL: rnwy 36. FSS: JOLIET (DL)
REMARKS: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1, 500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear afct. (3) 25 knots or more to all acft. Fld clsd daily to all operns btn hrs 2200 and 0600 lcl time due, no safety or svcs facs; no lgtg excpt obstn lgts dur this period. Rgt tfc N.
MEIGS TOWER [1]121.3 127.8 122.5R
GND CON MEIGS GND CON 121.9
VFR ADV Ctc twr on 127.8 at least 10 mi out.
REMARKS: [1]Oper 1200-0400Z.

CHICAGO-MIDWAY *IFR* 9 SW (132° 5 NM from MD LOM) AOE
619 H65, 13R-31L (6) (S-130, T-200, TT-400) BL2, 4, 6, 8
11 S5 F5, JP1 U2 RVV: Rnwy 13R REIL: rnwy 21L
FSS: JOLIET (DL)
REMARKS: Customs svc avbl 0800-1700 cst Mon-Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must lnd Chicago-O'Hare Intl Arpt.
MIDWAY TOWER 118.7 126.2 123.7 122.7R 109.9T
109.5T MIDWAY GND CON 121.7
RADAR SERVICES:
CHICAGO APP CON 119.5 126.2 124.7 124.2 122.6R
118.4 111.6T 110.1T 109.7T
CHICAGO DEP CON[1] 124.2 119.2
PAR Rnwy 13R Ceiling 300 Vsby ¾ mi Min Alt 919
ASR Rnwys 4L, 4R, 13L, 13R, 18, 27, 31L, 31R, 36
Ceiling 500 Vsby 1 mi Min Alt 1119. Rnwys 22L, 22R
Ceiling 600 Vsby 1 mi Min Alt 1219
ILS 109.9 I-MDW [2]Apch Brng 132° BC unusable 109.5
I-MXT Apch brg 312°
VHF DF Available, contact Tower.
REMARKS: [1] Midway tower provides RADAR coverage to departure acft in the immediate area of Midway. PAR unusable frm MM to touchdown. [2]Glide slope unusable below 870' MSL.
VOT: 111.0

ILLINOIS—Continued

CHICAGO-O'HARE INTL *IFR* 14 NW (ORD VOR on field)
667 H116/14R-32L (5) (S-120, T-200, TT-375) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 RVV: Rnwys 14L, 32L, 32R/27, 9/4
RVR: Rnwy 14R REIL: Rnwy 32R FSS: JOLIET (DL)
O'HARE TOWER 118.1 126.2 122.6R 120.7 110.1T 109.7T
CLRNC DEL 121.8 O'HARE GND CON 121.9
RADAR SERVICES: (BCN)
CHICAGO APP CON 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
CHICAGO DEP CON 125.4 125.0 124.2
TFC INFO all inbnd acft ctc Chicago APP CON on 119.0 from the E 125.7 from the W.
PAR Rnwys 14R, 27, 32L Ceiling 200 Vsby ½ mi Min Alt 867. Rnwys 4, 14L, 22, 32R Ceiling 300 Vsby ¾ mi Min Alt 967
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceiling 400 Vsby 1 mi Min Alt 1067 Rnwy 4 Ceiling 600 Vsby 2 mi Min Alt 1267′
ILS 109.7 I-ORD Apch Brng 138° (14R) 110.1 IOHA[4] Apch Brng 138° (I-IAC[3]) 110.5 Apch Brng 268° 109.1 I-RVG Apch Brng 318°
VHF/DF Available, contact Tower
REMARKS:[1] 180° - 359° - [2]360° - 179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til Radar advises passing twr 926′ MSL 4.2 mi fm end of rnwy. [3]Glide slope unusable below 900′ [4]Lclzr unusable beyond 15 nmi.
VOT: 112.0

MOLINE
QUAD CITY *IFR* 3 S (086° 4.4 NM from ML LOM)
590 H55/9-27 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F5, JP4 U2 RVV: Rnwy 9 FSS: BURLINGTON (DL)
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
MOLINE TOWER 118.5[1] 122.5R 110.3T
MOLINE GND CON 121.9
VFR ADV Ctc APP CON on 119.4
MOLINE APP CON 119.4 114.4T 111.2T 110.3T 224T
ILS 110.3 I-MLI Apch Brng 086°
REMARKS: [1]Prim civil local ctl.

PEORIA
GREATER PEORIA *IFR* 4 W (095° 4 NM from PIA VOR)
659 H70/12-30 (4) (S-60, T-80, TT-) BL4, 6, 8 S5 F5, JP1 U2 RVV: Rnwy 31 FSS: JOLIET
REMARKS: Rnwy 18 clsd air carrier ngt lndgs.
PEORIA TOWER 119.1 125.8 122.5R
PEORIA GND CON 121.9 VFR ADV Ctc APP CON
PEORIA APP CON 125.8 122.5R 115.2T 109.9T 3023.5R
ILS 109.9 I-PIA Apch Brng 303°

QUINCY MUNI-BLDWIN FLD *IFR* 9 E
769 H54 (3) BL4, 6 S5 F4 FSS: QUINCY on Fld
ILS:[1] 110.1 I-UIN Apch Brg 035°
REMARKS: [1]Glide slope unusable below 950′ MSL.

ILLINOIS—Continued

ROCKFORD
GREATER ROCKFORD *IFR* 4 S (114° 6 NM from RFD VOR
735 H60/18-36 (3) (S-75, T-100, TT-) BL4, 6, 8 S5 F4
RVV: Rnwy 36 FSS: ROCKFORD
ROCKFORD TOWER 118.3 122.5R 109.3T 362T
ROCKFORD GND CON 121.9
VFR ADV Ctc APP CON on 124.9
ROCKFORD APP CON 124.9 118.3 122.5R
ILS 109.3 I-RFD Apch Brng 002°
REMARKS: Glide slope unusable below 926 ft MSL.

SPRINGFIELD
CAPITAL *IFR* 3 NW (216° 3.2 NM from CAP VOR)
593 H70/4-22 (3) (S-75, T-150, TT-) BL4, 6, 8 S5 F4, JP4 U2 RVV: Rnwy 4 REIL: rnwy 22.
FSS: VANDALIA
TOWER 121.3 122.5R 239T
GND CON 121.9
VFR ADV Ctc APP CON on 118.6 aprx 25 NM out
SPRINGFIELD APP CON 118.6 121.3 112.7T 109.5T 379T
ILS 109.5 I-SPI Apch Brng 038°

INDIANA

EVANSVILLE
DRESS MEMORIAL *IFR* 3 N (057° 12.4 NM from EVV VOR
389 H60/3-21 (3) (S-70, T-90, TT-) BL4, 6 S5 F5, JP4
FSS: EVANSVILLE
REMARKS: P-Line apch rnwy 31. Acft not vis on final use rnwy 9 within 1500′ apch end at alt of 100′ AGL or be low
EVANSVILLE TOWER 118.7 122.5R
EVANSVILLE GND CON 121.9
EVANSVILLE APP CON 119.4 122.5R 118.7 113.3T 109.9T
ILS 109.9 I-EVV Apch Brng 215° BC unusable

FT. WAYNE
BAER FIELD *IFR* 6 SSW (FWA VOR on field)
801 H80/4-22 (3) (S-90, T-120, TT-) BL4, 6, 8 11 S5 JP1 U2 RVV: Rnwy 31 REIL: Rnwy 22
FSS: FORT WAYNE
REMARKS: P-Line apch rnwy 31.
FORT WAYNE TOWER 119.1 126.2 122.5R 278T
FORT WAYNE GND CON 121.9
RADAR SERVICES: (BCN)
FORT WAYNE APP CON 125.5 127.2 126.2 122.5R 117.8T 109.9T 251T FORT WAYNE DEP CON
TFC INFO Inbnd VHF equipped acft ctc APP CON at least 15 NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceiling 400 Vsby 1 mi Min Alt 1201. Rnwy 22 Ceiling 500 Vsby 1 mi Min Alt
ILS[1] 109.9 I-FWA Apch Brng 315°
REMARKS: Do not descend below 1500′ MSL til radar cont passing fix 3 miles fm end of rnwy 22 due to 1155′ MSL 3.8 miles NE. [1]Lclzr unusable above 6000′ MSL. Glide slope unusable below 1001′ MSL.
VOT: 111.0

INDIANA—Continued

APOLIS MUNI (Weir Cook) *IFR* 7 SW (142° 6.1 NM from IND
R:
7 H76 13-31 (2) (S-90, T-135, TT-300) BL6, 8A, 10 S-5
JP1, 4 U2 VASI: Rnwy 22 RVR: Rnwy 4
V: Rnwy 31 FSS: INDIANAPOLIS on Fld
MARKS: Fee multi-eng commercial acft. 700' extn NE end
nwy 4 - 22 clsd.
WER 120.9 126.2 122.5R 121.3 116.3T 109.3T
CLRNC DEL 125.7 GND CON 121.9
DAR SERVICES:
APP CON 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2]
116.3T 109.3T DEP CON 121.1 121.3
FFC INFO Ctc APP CON on 119.3 118.5 or 118.1
AR Rnwy 4 Ceiling 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceiling 400 Vsby 1 mi Min
Alt 1197
109.3 I-IND Apch Brng 044° 110.5 I-COA Apch
Brng 313°
F DF available, contact Tower.
MARKS: [1]220-044° [2]045°-219° [3]Glide slope unusable be-
ow 997' MSL [4]Lclzr and glide slope rnwy 4 shutdown dalgt
rs and VFR wee only until April 2.
T 109.0

E
AWARE COUNTY 3 N (065° 14.3 NM from AID RBN)
7 HS1 14-32 (2) (S-70, T-90, TT-150) BL4 S5 F4 U2
FSS: INDIANAPOLIS (DL)
MARKS: Unlgtd voltage twr line in NW apch 3480' of end
nwy 14.
NCIE TOWER[1] 120.1 122.5R
MUNCIE GND CON 121.9
DAR SERVICES:
INDIANAPOLIS CENTER APP CON 124.8
INDIANAPOLIS CENTER DEP CON 124.8
MARKS: [1]Oper 1200-0400Z.

BEND
JSEPH COUNTY *IFR* 3 NW (180° 3.7 NM from SBN VOR)
3 H60 9-27 (4) (S-110, T-145, TT-) BL4, 6, 8 S-4 FS
RVV: Rnwy 27 FSS: SOUTH BEND on Fld
MARKS: P-lines NE, S.
UTH BEND TOWER 118.9 122.5R 115.4T 109.3T
SOUTH BEND GND CON 121.9
SOUTH BEND APP CON 121.0 122.5R 115.4T 109.3T
S 109.3 I-SBN Apch Brng 269°

HAUTE
MAN FIELD *IFR* 5 E (229° 3 NM from HUF VOR)
S H90 5-23 (3) (S-80, T-105, TT-) BL 4, 6 S3 F4 U2
FSS: TERRE HAUTE on Fld
MARKS: 1254' overrun NE end rnwy 5. Rnwy 18-36 clsd to
acft over 25,000 lbs.
WER 118.3 126.2 122.5R
GND CON 121.9 VFR ADV Ctc APP CON
APP CON 123.8 126.2 122.5R 118.3
S 109.7 I-HUF Apch Brng 045°

•••IOWA•••

CEDAR RAPIDS MUNI *IFR* 5 SSW (088° 2.8 NM from CID VOR)
863 H70 8-26 (2) (S-100, T-135, TT-) BL 4, 6, 8 S-5 FS,
TF-1 U2 FSS: CEDAR RAPIDS on Fld
REMARKS: Eastern N S taxwy 1500 x 75' and sod areas avbl as
rnwy dur strong N S winds.
TOWER 118.7 122.5R 117.6T 109.3T 278T
GND CON 121.9 VFR ADV Ctc APP CON on 119.9
APP CON 119.9 122.5R 118.7 117.6T 109.3T 278T
ILS[1] 109.3 I-CID Apch Brng 085° BC unusable.
REMARKS: Glide slope unusable below 1047' MSL.

DES MOINES MUNI *IFR* 3 SW (349° 5.4 NM from DSM VOR)
957 H90 12-30 (3) (S-90, T-135, TT-300) BL4, 6, 8 S-5
FS, JP4 U2 RVV: Rnwy 30 FSS: DES MOINES on Fld
REMARKS: Rnwy 17-35 restricted to acft not over 25,000 lbs.
TOWER 118.3 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 124.9 122.5R 119.3 114.1T 110.3T 212T
DEP CON 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi Min Alt
1357
ILS 110.3 IDSM Apch Brng 305° BC unusable

SIOUX CITY MUNI *IFR* 6 S (312° 3.6 NM from SUX VOR)
1097 H90 13-31 (3) (Max 2.25) BL4, 6, 8A, 9, 11 S-5
FS, JP-1 U2 RVV: Rnwy 31 REIL: Rnwy 13
FSS: SIOUX CITY on Fld
REMARKS: First 1500' rnwy 22 not vis to tower.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 118.7 126.2 124.6 122.5R 116.5T 109.3T
ILS 109.3 I-SUX Apch Brng 307°
VHF/DF available, contact Tower.

WATERLOO MUNI *IFR* 4 NW (ALO VOR on fld)
870 H54 12-30 (3) (S-80, T-105, TT-) BL4, 6, 8 S-5
F4, JP1 U2 RVV: Rnwy 12 FSS: WATERLOO on Fld
TOWER 118.1 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.8
APP CON 125.8 122.5R 109.9T 108.2T
RADAR SERVICES:
ILS[1] 109.9 I-ALO Apch Brng 123°
REMARKS: Glide slope unusable below 950'.

•••KANSAS•••

HUTCHINSON MUNI *IFR* 3 E (032° 5 NM from HUT VOR)
1542 H70 13-31 (3) (S-40, T-55, TT-) BL4, 6,8 S-5 F4
FSS: HUTCHINSON on Fld
REMARKS: Certain rnwys and txwys may be clsd for const.
TOWER 118.5 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.5
APP CON 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brng 128°

KANSAS—Continued

KANSAS CITY
FAIRFAX MUNI *IFR* 3 NE (177° 7.5 NM from MKC VOR)
746 H73/17-35 (4) (S-, T-75, TT-170) BL6 S-5 F-5, JP-1
U2 FSS: KANSAS CITY (LC GRI-4572)
REMARKS: Tfc ptn alt for acft under 12,500 lbs GWT is 600 ft AGL, vsby N and NW greatly reduced.
TOWER 119.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
KANSAS CITY APP CON 126.2 122.7R 121.1[1] 119.5[2]
112.6T 109.9T KANSAS CITY DEP CON 118.1
REMARKS: [1]W Sector [2]E Sector

TOPEKA
PHILIP BILLARD MUNI *IFR* 3 NE (210° 4.9 NM from TOP VOR)
880 H51/13-31 (3) (S-60, T-80, TT-) BL4, 6 8, S5 F5
JP1 U2 FSS: TOPEKA on Fld
TOPEKA TOWER 118.7 126.2 122.5R
TOPEKA GND CON 121.9
RADAR SERVICES: (BCN)
OLATHE APP CON 120.5 122.5R
ILS[1] 109.5 I-TOP Apch Brng 125°
REMARKS: [1]Glide slope unusable below 1078' MSL.

WICHITA
BEECH *IFR* 5 E (273° 3.5 NM from ICT VOR)
1387 H50/18-36 (3) F4 FSS: WICHITA (DL)
REMARKS: Both apch N - S rnwy restricted by polelines.
TOWER 119.9 126.2 122.5R 3023.5R GND CON 121.9
RADAR SERVICES:
WICHITA APP CON 120.1 134.1 125.7 122.7R 332T
WICHITA DEP CON 124.5
ASR [1]Rnwy 18 Ceiling 700' Vsby day 1 mi Min Alt 2087
REMARKS: [1]NA for over 2 eng acft.

WICHITA MUNI *IFR* 5 SW (161° 4.3 NM from ICT VOR)
1332 H73/1-19 (2) BL6, 8 S5 F5, JP1 U2
RVV: Rnwy 01 FSS: WICHITA on Fld
REMARKS: Acft carrying hazardous or explosive cargo prohibited.
TOWER 119.5 122.5R 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
WICHITA APP CON 120.1 134.1 125.7 122.7R 113.8T
332T
WICHITA DEP CON 124.5 113.8T
ILS 110.3 I-ICT Apch Brg 010°

KENTUCKY

LEXINGTON
BLUE GRASS FIELD *IFR* 5 W (304° 7.3 NM from LEX VOR)
978 H55/4-22 (3) (S-35, T-45, TT-) BL4, 6, 8 S5 F5, JP-5
U2 RVV: Rnwy 4 FSS: LEXINGTON on Fld
REMARKS: Twr unable to see last 1/2 mi final apch rnwy 26 and on ramp from hangar line SE to txwys A, B and C
LEXINGTON TOWER 121.1 122.5R 117.0 110.1T
LEXINGTON GND CON 121.9
LEXINGTON APP CON 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brng 042°

KENTUCKY—Continued

LOUISVILLE
BOWMAN FIELD *IFR* 5 SE (330° 8.3 NM from LOU VOR
549 H43/6-24 (3) (Max 30) BL4, 11 S-5 F-4, JP-4
REIL: Rnwy 24 FSS: LOUISVILLE
TOWER 119.5 126.2 122.5R GND CON
RADAR SERVICES:
STANDIFORD APP CON 124.5 126.2 120.5 120.3
STANDIFORD DEP CON 119.0

LOUISVILLE
STANDIFORD FIELD *IFR* 4 S (300° 8.4 NM from LOU VOR
497 H78/1-19 (3) (S-60, T-90, TT-200) BL4, 6, 8 S-4
F5, JP1, 5 U2 RVV: Rnwy 29 RVR: Rnwy 1
FSS: LOUISVILLE
REMARKS: FEE
TOWER 120.3 126.2 122.7R
CLRNC DEL 121.3 GND CON
RADAR SERVICES:
APP CON 124.5 126.2 120.5 120.3 DEP CON
ASR Rnwy 1 Ceiling 400 Vsby 1 mi Min Alt 897.
19 Ceiling 500 Vsby 1 mi Min Alt 997. Rnwys
24, 29 Ceiling 600 Vsby 1 mi Min Alt 1097
ILS 110.3 I-SDF Apch Brng 010° 109.1 I-LKS Apch Brng 290°
VHF/DF Available, contact Tower
REMARKS: On apch to rnwy 19 maintain at least 1400 MSL within 3 mi of rnwy.
VOT: 111.0

LOUISIANA

BATON ROUGE
RYAN *IFR* 4 N (065° 7.6 NM from BTR VOR)
70 H60/4-22 (3) (S-30, T-40, TT) BL4, 6, 11 S5
JP5 U2 REIL: Rnwy 13 FSS: BATON ROUGE
TOWER [1]118.3 122.5R GND CON 121.9
BATON ROUGE APP CON 119.7 122.5R 116.5
110.3T
ILS 110.3 I-BTR Apch Brg 127°
REMARKS: [1]Intermittent severe interference reported
mi radius.

LAFAYETTE MUNI *IFR* 2 SE (344° 3 NM from LFT VOR
42 H51/1-19 (2) (S-30, T-40, TT) BL4, 8, 11 S5
F5, JP5 U2 RVV: Rnwy 19 REIL: Rnwy 1
FSS: LAFAYETTE
REMARKS: Rnwy 10 threshold displaced 350 ft E. 3
avbl lndg rnwy 10.
TOWER 118.5 122.5R CLRNC DEL
GND CON 121.7
APP CON 121.1 122.5R 118.5
ILS 109.5 I-LFT Apch Brg 193° BC unusable beyond
nmi

LAKE CHARLES MUNI *IFR* 3 S (252° 6.3 NM from LCH VOR
16 H65/15-33 (1) (S-137, T-165, TT-350) BL4, 6, 8A S5
F4, JP4 FSS: LAKE CHARLES
REMARKS: Rgt tfc SE.
TOWER 120.7 122.5R GND CON 121.9
APP CON 119.3 122.5R 113.4T 109.1T
ILS 109.1 I-LCH Apch brg 148°

OE
MAN FIELD *IFR* 3 E (035° 4.2 NM from MLU VOR)
) H50 4-22 (3) (S-30, T-40, TT) BL4, 6, 8 S5
4, JP4 U2 FSS: MONROE on Fld
ONROE TOWER 119.1 122.5R
MONROE GND CON 121.9
MONROE APP CON 119.1 122.5R
S 109.5 I-MLU Apch brg 038°
EMARKS: [1]Glide slope unusable below 320' MSL. About Feb 8, lclzr and glide slope will be shutdown until aprxly Feb 27, for mod.

RLEANS-LAKEFRONT *IFR* 4 NE (079° 7.4 NM from Y VOR)
H57 17-35 (4) (S60 T100 TT160) BL4 S5 F5, JP1, 5
FSS: NEW ORLEANS on Fld
EMARKS: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 1226 ft N. 4504 ft avbl lndg rnwy 35. 5202 ft avbl lndg rnwy 17. No ngt operns rnwy 8-26.
AKEFRONT TOWER 119.5 126.2 122.5R
LAKEFRONT GND CON 121.7
ADAR SERVICES:
NEW ORLEANS APP CON 125.5 122.7R 118.1
NEW ORLEANS DEP CON 121.0

RLEANS INTL-MOISANT FLD *IFR* 10 W (237° 4.4 NM from Y VOR)
H92 10-28 (3) (S-120, T-180, TT-400) BL4, 6, 8A, 11, 14 F5, JP1, 5 U2 REIL: Rnwy 1 RVV: Rnwy 10
FSS: NEW ORLEANS (DL)
EMARKS: Fee on gross lndg wt. Apch rnwy 28 clsd to Air carrier ngt operns. U S Customs - Lndg rts arpt (7am-11 pm Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba.
ISANT TOWER 119.9 126.2 122.7R 3023.5RX 278T
MOISANT GND CON 121.9
ADAR SERVICES:
APP CON [1]125.5 122.7R 118.1 109.9T
DEP CON 120.4
TFC INFO Ctc APP CON on 118.1
ASR Rnwys 1, 5, 19 ceil 500 vsby 1 mi min alt 503. Rnwys 10, 23, 28 ceil 400 vsby 1 mi min alt 403.
S 109.9 I-MSY Apch brng .099 BC unusable
F DF available, contact tower.
MARKS: [1]Acft transitioning New Orleans NAS MCC use New Orleans ARTCC freq 126.0 durg IFR above 3000; durg VFR use New Orleans APP CON freqs 118.1 & 122.7R.

EPORT
ATER SHREVEPORT *IFR* 4 SW (135° 3.6 NM from SH LOM)
H73/13-31 (2) (S-90, T-135, TT-300) BL4, 6, 8 F5
V: Rnwy 13 FSS: SHREVEPORT on Fld
REVEPORT TOWER 118.3 122.7R 201T
HREVEPORT GND CONN 121.9
DAR SERVICES: (BCN)
HREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
HREVEPORT DEP CON 119.9
TFC INFO Ctc APP CON on 118.5
S 110.3 I-SHV Apch brg 135°

SHREVEPORT DOWNTOWN *IFR* 2 N (DTN VOR on fld)
179 H45 14-32 (3) (S30, T-40, TT) BL4 S5 F5
FSS: SHREVEPORT (DL)
REMARKS: Due non-vsby some areas of fld ctc twr for instr. Apchs rnwys 14, 32, 18 and 36 restricted by trees-glide angle 0
TOWER 119.5 122.5R 272T GND CON 121.7
RADAR SERVICES: (BCN)
SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T
SHREVEPORT DEP CON 119.9

•••MAINE•••

PORTLAND MUNI *IFR* 2 W (112° 5.4 NM from PW LOM)
66 H50 11-29 (2) (S-117, T-142, TT-220) BL4, 6, 7, 10 S5 F5, JP1 U2
VASI: Rnwy 29 FSS: PORTLAND on Fld
REMARKS: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27' lctd at the end of rnwy and 800' rgt cntrline. Lesser penetrations lctd 250'-430' from end of rnwy and 720'-890' left cntrline 1890'-2180' from end of rnwy and 900'-1090' left cntrline.
TOWER 120.9 122.5R 109.9T GND CON 121.9
APP CON 120.9
ILS 109.9 I-PWM Apch Brg 112° BC unusable

•••MARYLAND•••

BALTIMORE
FRIENDSHIP INTL *IFR* 8S (BAL VOR on FLD)
146 H94-10-28 (3) (S-240, T-500, TT-700) BL6, 8A, 10, 11 S5 F5, JP1, 4, 5 U2 VASI: Rnwy 4 RVR: Rnwy 10
REIL rnwys 4, 22 FSS: WASHINGTON (DL)
REMARKS: For Customs use gates A-14 and A-3 clsd 10 PM to 6:30 AM to practice approaches or landings by turbojet and turboprop due noise complaints.
TOWER 118.7 122.7R 109.7T GND CON 121.9
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[1]
BALTIMORE DEP CON 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546. Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646
ILS[3] 109.7 I-BAL Apch Brg 102°
VHF/DF available, contact tower.
REMARKS: [1]101-279° [2]280-100° [3]Glide slope unusable from 400' inside MM to touchdown.
VOT: 108.2

MARYLAND—Continued

BALTIMORE
MARTIN 9 E (058° 14 NM from BAL VOR)
18 H81/14-32 (4) (S-50, T-160, TT) *L6
FSS: WASHINGTON (DL)
Remarks: Prior permission required.
TOWER [1]121.3 126.2 317T 3023.5R
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[3]
BALTIMORE DEP CON 120.4
REMARKS: [1]Oper 1300-2130 Mon; 1300-0430 Tues thru Fri; 1330-2200Z Sat & Sun [2]280-100° [3]101°-279°

MASSACHUSETTS

BEDFORD
LAURENCE G HANSCOM FLD *IFR* 1 S 112° 4 NM from BE RBn
133 H70/11-29 (2) (S-80, T-200, TT-355) BL4, 6, 8, 9, 10, 11 S5 F5, JP1,4 U2 VASI: Rnwys 11, 29 REIL: Rnwys 23, 29 RVV: Rnwy 11 FSS: BOSTON (DL)
TOWER 118.5 126.2 124.4 122.5R 3023.5RX
GND CON 121.7 VFR ADV Inbnd acft ctc APP CON
APP CON 124.4 126.2
RADAR SERVICES:[1]
PAR Rnwy 11 Ceiling 300 Vsby ¼ mi Min Alt 433
ILS 109.5 I-BED Apch brng 112°
VHF/DF available, contact tower.
REMARKS: [1]GCA oper 1400-0400Z Mon-Sat.
VOT: 110.0

BOSTON
LOGAN INTL *IFR* 1 E (BOS VOR on FLD)
19 H100/4R-22L (4) (S-200, T , TT) BL6, 8A, 10
S5 F4, JP4, 5 U2 VASI: Rnwy 22L RVR: Rnwy 4R
FSS: BOSTON on Fld
REMARKS: FEE. Lndg threshold rnwy 4R displaced 2502' to NE, 10,023' avbl except lndg length toward NE restricted to 7521' during IFR conditions and hrs of darkness. Rnwy 4L-22R usable width 150' threshold at apch end rnwy 22R relocated 800' SW. Tmprly lndg threshold rnwy 4R displaced 2502' to NE for all lndg operns.
BOSTON TOWER 118.1 126.2 122.5R 110.3T
CLRNC DEL 121.65 BOSTON GND CON 121.9
RADAR SERVICES:
BOSTON APP CON [2]120.6 [1]126.5 126.2 122.5R 110.3T 382T
BOSTON DEP CON 119.1
PAR Rnwy 4R ceil 200 vsby ½ mi min alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719. Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619. Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519
ILS 110.3 I-BOS Apch Brg 035° BC unusable. 110.7 I-LIP[3] Apch Brg 330° BC unusable
VHF/DF available, contact Tower.
REMARKS: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219' MSL.
VOT: 111.0

MASSACHUSETTS—Continued

HYANNIS
BARNSTABLE MUNI *IFR* 1 N (242° 3.2 from HYA VOR
52 H55/6-24 (2) (S-46, T-88, TT-134) BL4, 6, 8, [illegible] S[illegible]
F5, JP5 U2 RVV: Rnwy 24 REIL: Rnwy 6
FSS: NANTUCKET [illegible]
REMARKS: Poles SE, SW. E 2000' rnwy 11-29 open for [illegible] lndgs and tk-ofs to acft under 12,500 lbs on pilot req[illegible].
HYANNIS TOWER 119.5 122.5R
HYANNIS GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 110.5 I-HYA Apch Brg 246° BC unusable

NANTUCKET MEMORIAL *IFR* 3 SE (240° 1.9 NM from ACK VO[illegible]
47 H50/6-24 (2) (S-90, T-160, TT-293) BL4, 6, 8 S[illegible]
RVV: Rnwy 24 FSS: NANTUCKET [illegible]
REMARKS: Ctn-birds vic fld.
TOWER [1]118.3 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 109.1 I-ACK Apch Brg 240°
VHF/DF available, contact FSS.
REMARKS: [1]Oper 1200-0400Z advisory svc other times.

NEW BEDFORD MUNI *IFR* 2 NW (053° 3.8 NM from EWB LOM
79 H50/5-23 (2) (S-50, T-65, TT) BL4, 6, 8 S[illegible]
U2 FSS: NANTUCKET [illegible]
REMARKS: ILS apch zone for rnwy has unlgtd trees pro[illegible] above the 7 to 1 slope.
TOWER 121.3 122.5R 109.7T GND CON 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053°

WESTFIELD
BARNES MUNI *IFR* 3 N (BAF VOR on field)
270 H90/2-20 (3) (S-60, T , TT BL4, 6 S5 F4 [illegible]
FSS: WINDSOR LOCKS [illegible]
REMARKS: Acft arresting barriers installed rnwy 2-20 [illegible] on req.
WESTFIELD TOWER [1]121.3 126.2 122.5R
WESTFIELD GND CON 121.7
REMARKS: [1]Oper 1100-0300Z.

WORCESTER MUNI *IFR* 3 W (332 4 NM from ORH LOM
1009 H71 (11-29) (3) (S-90, T , TT) BL6, 7 S5
F4, JP1 RVV: Rnwy 33 FSS: WORCESTER [illegible]
REMARKS: Rnwy 11-29 threshold displaced 150'
TOWER 120.5 121.9 110.9T 255T
GND CON 121.9
ILS 110.9 I-ORH Apch Brg 332° BC unusable

E CREEK
(ELLOGG REGIONAL AIRFIELD *IFR* 3 W (BTL VOR on
4
H70 4-22 (4) (S-40, T-65-TT-115) BL4, 6 BA S5 F4
FSS: JACKSON
MARKS: Rnwys 9-27, 18-36 clsd dur winter mos. E ramp S
twr and portion N ramp mil area not visible from twr.
TTLE CREEK TOWER 118.5 122.5R 396T
BATTLE CREEK GND CON 121.9
VFR ADV Ctc APP CON on 121.2 when 25 mi out.
BATTLE CREEK APP CON 121.2 122.5R
110.5 I-BTL Apch Brg 224°
MARKS: [1]Glide slope unusable below 1141' MSL.

IT CITY *IFR* 5 NE (350° 12.3 NM from QG VOR) AOE
H51 15R-33L (3) (S250 T350 TT) BL4 11 S5 F4,
U2 REIL: Rnwy 15 FSS: DETROIT (DL)
WER 118.7 122.5R GND CON 121.9
APP CON 120.0 122.5R
DEP CON 127.3
F DF available, contact tower.
VOT: 112.0

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IT METROPOLITAN WAYNE CO *IFR* 13 SW (032° 4.2 NM
(DT) LOM) AOE
H10S 3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 10,
S5 F4, JP1, 4 U2 VASI: Rnwy 27 RVR: Rnwy 3L
IL: Rnwy 3R FSS: DETROIT on Fld
EMARKS: Rnwy 15 threshold displaced 650'.
TROIT METROPOLITAN TOWER 121.1 126.2 122.7R
29.3T
CLRNC DEL 120.65
DETROIT METROPOLITAN GND CON 121.7
DAR SERVICES:
ILLOW RUN APP CON 123.7 125.15 124.9 122.6R
114.9T 109.5T 332T
ILLOW RUN DEP CON 118.4
109.3 I-DTW Apch Brg 032° 110.7 I-DWC Apch
rg 212°

T
OW RUN *IFR* 19 SW (YIP VOR on field)
H75 5R-23L (5) (S-60, T-90, TT-200) BL2, 4, 6, 8, 11
F5, JP1, 4 RVR: Rnwy 5R REIL: Rnwy 23L
FSS: DETROIT (DL)
MARKS: First 500' rnwy 9L not vis from twr.
WER 121.3 122.6R 109.5T GND CON 121.9
DAR SERVICES:
APP CON 125.15 124.9 123.7 122.6R 114.9T 109.5T
DEP CON 118.4
TFC INFO Ctc APP CON on 124.9 or 123.7
AR Rnwy 5R ceil 200 vsby ½ mi min alt 916. Rnwy 5L
ceil 400 vsby 1 mi min alt 1116
SR Rnwy 9L ceil 600 vsby 1 mi min alt 1316. Rnwys 5L,
5R, 14, 36 ceil 500 vsby 1 mi min alt 1216. Rnwys
18, 23L, 23R, 27L, 27R, 32 ceil 400 vsby 1 mi min alt 1116
109.5 I-YIP Apch Brg 050°
F DF available, contact tower.
T: 109.0

FLINT
BISHOP *IFR* ? SW (FNT VOR on field)
781 H56 ? 7 (3) (S-40, T-60, TT-110) BL4, 6, 8 S5 F4
U2 FSS: FLINT on Fld
REMARKS: Rnwy 18 threshold displaced 635 ft.
FLINT TOWER 119.5 123.6 122.5R 111.6T 109.9T
FLINT GND CON 121.9 VFR ADV Ctc APP CON on
123.6 aprx. 25 NM out.
FLINT APP CON 123.6 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091°

GRAND RAPIDS
KENT COUNTY *IFR* 6SE (351° 5.7 NM from GRR VOR)
793 H66 8-26 (2) (Max-45) BL6, 8 14, 15 S5 F5, JP1 U2
RVV: Rnwy 26 FSS: SAGINAW
TOWER 119.3 122.5R GND CON 121.9
VFR ADV Inbnd VHF equipped acft ctc APP CON on
124.6 MCS 10 mi out.
GRAND RAPIDS APP CON 124.6 122.5R 109.7T
ILS 109.7 I-GRR Apch Brg 262

JACKSON
REYNOLDS MUNI *IFR* 2 W (JXN VOR on field)
1000 H53 5-23 (2) (S-60, T-80, TT-) BL5 S5 F4
REIL: Rnwy 23 (1200-0400) FSS: JACKSON on Fld
REMARKS: Rnwy 5 threshold displaced 627 ft. Rnwy 31
threshold displaced 550'.
JACKSON TOWER [1]120.7 122.5R 121.9 109.6
CLRNC DEL 121.9 JACKSON GND CON 121.9
REMARKS: Twr oper 1200-0400Z.

KALAMAZOO MUNI *IFR* 1 SE (AZO VOR on field)
874 H53 17-35 (3) (S-30, T-50, TT-85[1]) BL4, 6, 8 S5
F4, JP5 U2 FSS: JACKSON (LC ST 4-9640)
REMARKS: (S-40, T-65, TT-110) avail rnys 5-23 & 9-27
TOWER[1] 118.3 122.7R 362T GND CON 121.7
BATTLE CREEK APP CON 121.2
ILS[2] 110.9 I-AZO Apch Brg 352°
REMARKS: [1]Oper 1200-0400Z. [2]Glide slope unusable below
1062'

LANSING
CAPITAL CITY *IFR* 3 NW (054° 5.4 NM from LAN VOR)
859 H65 9-27 (2) (S-30, T-40, TT) BL4, 6, 8 11 S5
F4, JP1 RVV: Rnwy 27 REIL rnwy 6
FSS: LANSING on Fld
LANSING TOWER 119.9 122.5R 110.8T 110.1T
LANSING GND CON 121.9 VFR ADV Ctc APP CON on
127.4[1] aprx 25 NM out.
LANSING APP CON 127.4[1] 122.5R 110.8T 110.1T
ILS 110.1 I-LAN Apch Brg 273°
REMARKS: [1]To be decomsnd Feb. 24.

MUSKEGON CO *IFR* 4 S (272° 8.4 NM from MKG VOR)
628 H56/14-32 (3) (S-30, T-40, TT) BL6, 8 S5 F4
U2 RVV: Rnwy 32 FSS: MUSKEGON on Fld
REMARKS: Rnwy 36 threshold displaced 300'. Rnwy 14
threshold displaced 300'.
TOWER 121.1 122.5R GND CON 121.9 VFR ADV Ctc
APP CON aprx 25 mi out on 118.2
APP CON 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 I-MKG Apch Brg 317° BC unusable
REMARKS: [1]Glide slope unusable below 828' MSL.

MICHIGAN–*Continued*

PONTIAC MUNI *IFR* 5 W (119° 4.9 NM from PTK VOR)
974 H53/9-27 (3) (S-40, T-65, TT-110) BL6 S5 F4 U2
FSS: DETROIT (LC PA 2-8790)
TOWER [1]120.5 122.5R 275Tx GND CON 121.9
RADAR SERVICES:
CLEVELAND CENTER APP CON 126.4
CLEVELAND CENTER DEP CON 126.4
REMARKS: [1]Oper 1100-0300Z.

MINNESOTA

DULUTH INTL *IFR* 5 NW (013° 2.2 NM from DLH VOR) AOE
1429 H101/9-27 (3) (S-60, T-100, TT-185) BL4, 6, 8 S5
F5, JP4 VASI: Rnwy 27 RVV: Rnwy 9-27
FSS: HIBBING
REMARKS: Caution, const in prog. 2000' concrete extsn w of rnwy 9 threshold lgts and end mrkgs unusable. Jet arresting barrier cable installed 600' from apch end rnwy 27 and 2650' from apch end rnwy 9. 1000' overrun rnwy 27.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 125.8 122.5R 112.6T 110.3T
DEP CON 126.2
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 ceil 300 vsby 3/4 mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829. Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I-DLH Apch Brg 088°
VHF/DF available, contact Tower.
REMARKS: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min out on 125.8 regardless of wx. [1]Unusable below 1594' MSL.

MINNEAPOLIS
CRYSTAL *IFR* 8 NW (166° 4.9 NM from MSP VOR)
869 H32/13L-31R (2) (Max-4) BL4 S5 F4
FSS: MINNEAPOLIS (DL)
REMARKS: Grass strips usable but rough. Portions of arpt not visible from twr. Threshold rnwy 23R displaced 400' SW landing distance available 2100'.
TOWER [1]120.7 122.5R 257T GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNEAPOLIS
FLYING CLOUD *IFR* 11 SW (FCM VOR on field)
909 H36/9L-27R (3) (Max 8) BL4 S5 F4, JP4
FSS: MINNEAPOLIS (DL)
TOWER [1]120.5 122.5R 272T GND CON 121.7
RADAR SERVICES
MINNEAPOLIS APP CON 120.0 126.5 126.2 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

MINNESOTA–*Continued*

MINNEAPOLIS-ST PAUL INTL *IFR* 6S (287° 2.4 NM fr[illegible]
RBn)
840 H100/11R-29L (3) (S-120, T-180, TT-400) B[illegible]
11 S5, JP1, 4 VASI: Rnwy 11R RVR: Rnwy 4
REIL rnwy 11R FSS: MINNEAPO[illegible]
REMARKS: First 1000' NE end rnwy 4-22 clsd to norm[illegible]
Rnwy 11L-29R threshold displaced 610' SE. Twr [illegible] see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
MINNEAPOLIS TOWER 118.7 126.2
CLRNC DEL 119.55
MINNEAPOLIS GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 [illegible]
117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
PAR Rnwy 29L Ceil 300 Vsby ¼ mi Min Alt [illegible]
ASR Rnwy 11R Ceil 400 Vsby 1 mi Min Alt [illegible]
22 Ceil 600 Vsby 1 mi Min Alt 1440. Rnwy 4 [illegible]
500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP[2] Apch Brg 295° 109.3 I-APL Apch brng 039°
VHF/DF available, contact Tower.
REMARKS: CAUTION–on apch to rnwy 11R do not descend below 1400' until radar controller has advised passing fm apch end rnwy 11R [1]Unusable MM to touchdown [illegible] BC unusable beyond 16 nmi. [2]Lclzr front crs unusable [illegible] apchs.
VOT: 111.0

ROCHESTER MUNI *IFR* 7 S (025° 8.3 NM from RST VOR
1310 H64/13-31 (2) (Max 60) BL4, 6, 8 S5 F4, JP[illegible]
RVV: Rnwy 31 FSS: ROCHESTER
TOWER 118.3 122.5R 121.9 278Tx GND CON [illegible]
VFR ADV Ctc APP CON on 119.8.
APP CON 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I-RST Apch Brg 307°
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

ST PAUL-DOWNTOWN *IFR* 1 S (289° 4.6 NM from STP VOR
703 H55/12-30 (3) (Max 45) BL2, 4 S5 F5, JP[illegible]
FSS: MINNEAPOLIS
REMARKS: 4562 ft avbl lndg rnwy 12. NE-SW rnwy [illegible] txwy.
ST PAUL TOWER [1]119.1 122.5R 396T
ST PAUL GND CON 121.7
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 126.2 [illegible]
117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

*** MISSISSIPPI ***

GULFPORT MUNI *IFR* 3 NE (GPT VOR on field)
28 H90/13-31 (3) (S-60, T-115, TT-120) BL4, 5, 5[illegible]
JP1 U2 FSS: MOBILE (LC [illegible])
REMARKS: Arrest barrier in oper on Rnwy 13-31. Jets [illegible] Rnwy 13-31 on 5 min notice. 1000 ft overruns on [illegible] 13-31.
TOWER 121.3 122.5R 109.0T GND CON 121.9
APP CON 119.3 122.5R 109.0T

MISSISSIPPI—Continued

ON
CKINS FIELD *IFR* 2 NW (189° 10.8 NM from JAN VOR)
3 H54 16-34 (2) (Mox 15)[1] BL4, 6 S5 F4 U2
FSS: JACKSON (LC 939-5212)
MARKS: [1] Mox 20 oval rny 16-34.
WER 118.7 126.2 122.5R 278T
DAR SERVICES:
IACKSON APP CON 123.9[1] 125.2[2]
ACKSON DEP CON 123.9 125.2
MARKS: [1]333°-152°. [2]153°-332°.

(PSON FIELD *IFR* 5 E (151° 11.7 NM from JAN VOR)
H85 15-33 (1) (S-120, T-150, TT-265) BL6, 8 S5
JP5 U2 RVV: Rnwy 15 FSS: JACKSON on Fld
CKSON TOWER 120.9 126.2 122.7R 348T
ACKSON GND CON 121.7
DAR SERVICES: (BCN)
ACKSON APP CON 125.2[1] 123.9[2]
ACKSON DEP CON 125.2[1] 123.9[2]
SR Rnwys 15, 33 Ceil 400 Vsby 1 mi Min Alt 745
110.5 I-JAN[3] Apch Brg 152°
MARKS: [1]153-332°. [2]333°-152° [3]ILS fclzr usable area estricted to front crs and 35° either side of cntr line. [4]Glide slope unusable below 485'.

AN
FIELD *IFR* 3 SW (129° 3.5 NM from MEI VOR)
H80. 1-19 (2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
V: Rnwy 01 FSS: MERIDIAN on Fld
MARKS: Transmissometer rnwy 1.
WER[1] 118.2 126.2 122.5R GND CON 121.9
DAR SERVICES: (BCN)
ERIDIAN APP CON 120.5
ERIDIAN DEP CON 124.7
110.1 I-MEI Apch Brg 004°
MARKS: [1]Twr opers 1300-0500Z. [2]BC unusable. Glide slope unusable below 384' MSL.

••• MISSOURI •••

MUN *IFR* 4 NE
H55 (3) BL4, 6 S5 F4 U1 FSS: JOPLIN on Fld
_S[1] 110.3 I-JLN Apch Brg 130°
MARKS: [1]BC unusable within 1.5 nmi end of rnwy. Front s unusable below 1158 ft MSL.

CITY
ONTINENT INTL *IFR* 15 NW (005° 4.4 NM from MC LOM)
H90/18-36 (1) (S , T-150, TT-300) BL6, 8 F5, JP1
: Rnwy 36 FSS: KANSAS CITY (LC GR 1-4572)
MARKS: W 4000' of E/W txwy avbl for use as rnwy if 12,500 s or less dur strong winds.
WER [1]120.7 122.4R GND CON 121.8
DAR SERVICES:
ANSAS CITY APP CON 119.5[2] 126.2 1227R 121.1[3]
112.6T 109.9T KANSAS CITY DEP CON 118.1
110.5 I-MCI Apch Brg 005°
MARKS: [1]Oper 1300-0500Z. [2]E sector. [3]W sector.

MISSOURI—Continued

KANSAS CITY MUNI *IFR* 4 N (171° 8.7 NM from MRC VOR)
758 H70 18-36 (3) (S-110, T-165, TT-365) BL4, 6, 8 11, 13 S5 F4, JP1 U2 RVV: Rnwy 18 REIL: Rnwy 36
FSS: KANSAS CITY on Fld
REMARKS: Rnwy 35 usable daylight hrs only.
TOWER 118.3 126.2 125.8 122.7R 121.1 111.4T
CLRNC DEL 125.8 GND CON 121.9
RADAR SERVICES:
APP CON 119.5[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
DEP CON 118.1 PAR Rnwy 18 Ceil 400 Vsby 1 mi
Min Alt 1158.
ILS[3] 109.9 I-MKC Apch Brg 185 BC unusable
VHF DF available, contact tower.
REMARKS: Req all arriving VFR flts eqp with proper simplex freqs make initial ctc with Kansas City app con on appropriate freq for preliminary landing info. Acft approaching fm 001°-180 use 119.5 and/fm 180°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014 ft MSL.
VOT: 108.6

ST JOSEPH
ROSECRANS MEMORIAL *IFR* 3 WNW (167° 10.7 NM from STJ VOR)
826 H80 17-35 (3) (S-60, T-160, TT-250) BL4, 6, 8 S5 F4 FSS: ST JOSEPH on Fld
TOWER 119.9 122.5R GND CON 121.9
KANSAS CITY APP CON 121.1 126.2 122.7R 119.5
KANSAS CITY DEP CON 118.1
ILS 110.3 I-STJ Apch Brg 352°

ST LOUIS
LAMBERT-ST LOUIS *IFR* 10 NW (137° 8 NM from STL VOR)
571 H100 12R-30L (4) (Mox 75)[1] BL4, 6, 8, 9 S5 F4, JP1, 5 U2 RVR: Rnwy 24 REIL rnwy 6
FSS: ST LOUIS on Fld
REMARKS: [1](Mox-100) rnwy 17-35.
ST LOUIS TOWER 118.5 126.2 122.7R 119.5 278T
CLRNC DEL 119.5 ST LOUIS GND CON 121.9 122.5R
RADAR SERVICES:
ST LOUIS APP CON 126.5[1] 123.7 122.5R 118.1
[2]117.4T 110.3T ST LOUIS DEP CON 119.9
PAR Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 mi Min Alt 1071. Rnwys 12L, 30R Ceil 500 Vsby 1 ½ mi Min Alt 1071. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° [3]109.7 I-LMR
VHF DF available, contact tower.
REMARKS: [1]Southeast arrivals. [2]Northwest arrivals. Except rnwy 12. [3]To be comsnd March 15.
VOT: 111.0

SPIRIT OF ST LOUIS *IFR* 23W (217° 1.2NM from MTS VORTAC)
511 H51/7-25 (1) (T-30) L6 S1 F4
FSS: ST LOUIS (LC PE 1-4411)
REMARKS: Special Air Traffic Rules - Part 93, Subpart G in effect. Unlgtd p-line 1000' W apch end rnwy 7. Rgt tfc rnwy 7.
TOWER[1] 121.3 122.5R 121.5X
REMARKS: [1]Opers 0700-1900 CST daily.

MISSOURI—Continued

SPRINGFIELD MUNI *IFR* 5 NW (193° 6.8 NM from SGF VOR)
1267 H56/1-19 (2) (S-80, T-135, TT-300) BL4, 6, 8 S5
F5, TP1 RVV: Rnwy 1 FSS: SPRINGFIELD on Fld
TOWER 119.9 122.5R GND CON 121.9
VFR ADV 125.8
APP CON 125.8 122.5R 116.9T 109.9T
ILS[1] 109.9 I-SGF Apch Brg 015°
REMARKS: Glide slope unusable below 1325 ft MSL.

*** MONTANA ***

BILLINGS
LOGAN FIELD *IFR* 2 NW (070° 3.2 NM from BIL VOR)
3606 H86/9-27 (3) (S-60, T-80, TT-120) BL2, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 9 FSS: BILLINGS on Fld
BILLINGS TOWER 118.3 122.5R 3023.5R 278T
BILLINGS GND CON 121.9
BILLINGS APP CON 120.5 122.5R 120.5 114.5T
110.3T 3023.5R 278T
ILS[1] 110.3 I-BIL Apch Brg 095°
REMARKS: [1]Not approved for auto apchs.

GREAT FALLS INTL *IFR* 3 SW (026° 1.9 NM from GTF VOR)
3671 H90/3-21 (4) (S-60, T-80, TT) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwys 16, 34
FSS: GREAT FALLS on Fld
REMARKS: Rnwy 7-25 rest to acft 64,000 lbs or less.
TOWER 118.7 126.2 122.5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1 134.1 126.2 122.7R 122.5Rx 121.1
119.3 116.3T 3023.5Rx DEP CON 121.1
TFC INFO Ctc APP CON on 118.1 119.3 or 122.5R
ILS 110.3 I-GTF Apch Brg 341° BC unusable

HELENA *IFR* 2 NE (240° 0.7 NM from HLN VOR)
3873 H70/8-26 (3) (S-90 T-120, TT-200) BL 5, 11 S5 F5, JP4 U2 REIL rnwy 26 FSS: HELENA on Fld
REMARKS: Rnwy 11-29 restricted to 100,000 lbs GWT. Rgt tfc W, SW, NW.
HELENA TOWER 118.3 122.5R 278T GND CON 121.9

MISSOULA CO *IFR* 4 NW (MSO VOR on fld)
3203 (H59/16-34 (3) (Max-30) BL2, 4 S5 F4 U2
FSS: MISSOULA on Fld
REMARKS: Rnwy 11-29 rest to 150,000 lbs gwt with 1387 ft emerg overrun NW end for acft under 25,000 lbs. Rnwy 16-34 restricted to 65,000 lbs GWT. Rnwy 7-25 rest to 12,500 lbs GWT.
TOWER [1]118.5 122.5R 278T GND CON 121.9
REMARKS: [1]Oper 1300-0500Z.

*** NEBRASKA ***

LINCOLN MUNI/AFB *IFR* 4 NW (351° 4.8 NM from LN RBN)
1198 H129/17R-35L (2)[1] (Max-15) BL6, 8A, 11 S5
F5, JP1 RVV: Rnwys 17, 35 REIL: Rnwy 17R
FSS: LINCOLN on Fld
REMARKS: [1]All civ acft use 4000 ft rnwy 17L-35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers recommendations rqr the use of rnwy 17R-35L. Ctn-jet tfc.

NEBRASKA—Continued

LINCOLN MUNI/AFB—(Continued)
TOWER 118.5 126.2 122.5R 272T GND CON
RADAR SERVICES: (BCN)
APP CON 123.7 124.8 120.4 109.9T 108.4T
3023.5R DEP CON
TFC INFO VFR acft ctc APP CON on 124.8
ILS 109.9 I-LNK Apch Brg 351°

OMAHA
EPPLEY FIELD *IFR* 3 NE (309° 10.2 NM from OMA VOR
983 H85/14-32 (4) (S-180, T-200, TT-400) BL4, 6, 8
S5 F5, JP1, 4 RVV: Rnwy 14 REIL: Rnwy 35
FSS: OMAHA
REMARKS: US Customs lndg rts arpt
TOWER 119.1 126.2 122.5R OMAHA GND CON
RADAR SERVICES: (BCN)
OMAHA APP CON 120.1 125.7 122.5R
OMAHA DEP CON 124.5 118.0
ILS 110.3 I-OMA Apch Brg 135°.
REMARKS: BC unusable all alts 80° either side front crs either side BC due tendency false courses.

*** NEVADA ***

LAS VEGAS
McCARRAN FIELD *IFR* 5 S (LAS VOR on fld)
2171 H100/7-25 (3) (S-100, T-200, TT-380) BL4, 5
F5, TF1, JP4, 5 U2 VASI: Rnwy 25
FSS: LAS VEGAS
REMARKS: Rnwy 7-25, 9995' avbl lndg and tkof dolgt ops 9766' avbl lndg rnwy 25 ngts due to 229' displaced threshold E end. 9245' avbl lndg rnwy 7 ngts due 750' displaced threshold W end. Rnwy 1-19, 6500' avbl lndg and tkof both directions dolgt operns and tkof ngts only. 6361' lndg rnwy 19 ngt operns only due 242' displaced threshold on NE end. 5878' avbl lndg rnwy 1 ngt operns only due 625' displaced threshold on SW end. Rnwy 32 threshold displaced 373' 4027' avbl lndg rnwy 32.
TOWER 118.3 122.5R 278T GND CON
RADAR SERVICES: (BCN)
LAS VEGAS APP CON 121.1 125.9 122.5R 118.3
LAS VEGAS DEP CON 119.4
TFC INFO Ctc APP CON on 121.1 30 mi out.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571 Rnwy 1, 7[1] Ceil 600 Vsby 1 mi Min Alt 2771
REMARKS: [1]Acft inbnd on FAP to rnwys 1 or 7 will cross not lwr than 3100 until pilot is notified by RAPCON that has passed a pt 3 mi before the rnwy.

RENO MUNI *IFR* 2 SE (229° 5.1 NM from RNO VOR)
4411 H90/16-34 (2) (S-100, T-200, TT-350) BL4 B
F5, JP1, 5 U2 FSS: RENO
TOWER 118.3 278T GND CON
APP CON 119.2 117.9T 254T
ILS 109.3 I-RNO Apch Brg 162°

*** NEW HAMPSHIRE ***

MANCHESTER
GRENIER FIELD *IFR* 3 S (337° 4.2 NM from MHT VOR
233 H70/17-35 (2) (S-127, T-200, TT-400) BL4
U2 REIL: Rnwy 35 FSS: CONCORD
TOWER[1] 121.3 126.2 122.5R
REMARKS: [1]Oper 1000-0300Z.

••• NEW JERSEY •••

C ATLANTIC CITY (POMONA) *IFR* 9 NW (ACY VOR on arpt)
76 H100 13-31 (4) (MAX-60) BL4, 6, 8 S3 F5, JP4
FSS: MILLVILLE (LC 399-8096)
REMARKS: Fee. BAK 9 arresting gear installed 2000' from threshold rnwy 13 and 1000' from threshold rnwy 31. Pendant 1-1 2" steel cable stretched across rnwy 3, 1 2-4" above surface with rubber doughnuts extending 6" above surface. Pendant may gyrate.
TOWER 119.5 128.4 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
ATLANTIC CITY APP CON 124.6 126.2 122.5R 119.5 108.6T
ATLANTIC CITY DEP CON 128.4
PAR Rnwy 13 Ceil 200 Vsby 1 2 mi Min Alt 276.
Rnwys 4, 31 Ceil 300 Vsby 3 4 mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I-ACY Apch Brg 128° BC unusable
VHF DF available, contact tower
REMARKS: [1]400 aux for rnwys 13, 17, 22, 22, 26, 31.

WELL-WRIGHT 1 N (146° 16.1 NM from SAX VOR)
75 H47/4-22 (3) (MAX-20) BL4 S5 F5 U2
FSS: TETERBORO
REMARKS: Rgt tfc rnwy 22, 27. Rft tfc on tkofs only rnwy 32. Arpt attended 8 AM to 9 PM.
AA DEP PROC: Rnwy 27 acft shall not start crosswind leg until well past the school lctd 1 4 mi to the right of the extended rnwy centerline and 1 4 mi from the arpt. Rnwy 32 acft shall bear right as soon as practicable after take-off to avoid flying over the Fairfield township school lctd 1/4 mi NW of arpt and slightly left of the extended rnwy centerline.
TOWER[1] 126.5 122.5R
RADAR SERVICES:
NEWARK APP CON 127.6[2] 124.3[3] 122.7R 120.6 3023.5R
NEWARK DEP CON 119.2 120.6
REMARKS: [1]Oper 1330Z-SS daily. [2]270°-089°. [3]090°-269°.

ISTOWN MUNI *IFR* 2 E (020° 3.1 NM from CAT RBn)
37 H40/4-22 (2) BL4, 6 S5 F5, JP1 U2
FSS: TETERBORO (LC JE8-2196)
REMARKS: Dips first 800 ft rnwy 22. Ngt trng flts by non-based acft prohibited. Due obstns, ramp and txwys not ctld by twr. Use at pilots' discretion.
TOWER[1] 118.1 122.7R GND CON 121.7
NEWARK APP CON 120.6[2] 124.3[3] 120.6 122.7R
NEWARK DEP CON 119.2 127.6
REMARKS: [1]Oper 1200-0400Z. [2]270-089° [3]090-269°

RK MUNI *IFR* 2 S (058° 1 NM from EWR RBn)
3 H70/4-22 (2) (MAX-55) BL4, 6, 8A, 10, 11 S5 F5, JP1
2 REIL and VASI: Rnwy 29 RVR: Rnwy 4
VV Rnwy 11, 22 and 29 FSS: TETERBORO (DL)
REMARKS: US Customs Indg rgts arpt fee.
TOWER 118.3[4] 126.2 122.7R 110.3T 109.3T 109.1T
CLRNC DEL 121.4 GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 120.6[2] 124.3[3] 122.7R 120.6 110.3T 109.3T
DEP CON 119.2 127.6
TFC INFO Inbnd tfc ctc APP CON on 126.2 25 mi out.
PAR Rnwy 4 Ceil 200 Vsby 1. 2 mi Min Alt 218

NEW JERSEY—Continued

NEWARK MUNI—(Continued)
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. 109.1 I-ARK Apch Brg 217°
VHF DF available, contact tower.
REMARKS: [1]Rnwy 11-maintain 700' until passing the 2.5 mi radar fix [2]270-089° [3]090-269°
VOT: 108.6

TETERBORO MUNI *IFR* 1 SW (060° 4 NM from TE LOM)
7 H50 6-24 (3) (MAX-20) BL4, 8 S5 F5, JP1
FSS: TETERBORO on Fld
REMARKS: Fee. Clsd to jet acft except prior pmsn. Rnwy 24 apch restricted by poleline-glide angle 6 to 1.
TOWER 119.5 122.5R GND CON 121.9
RADAR SERVICES:
NEWARD APP CON 120.6 124.3
NEWARK DEP CON 119.2 127.6
ILS 109.3 I-TEB Apch Brg 060°. BC unusable

TRENTON
MERCER COUNTY *IFR* 4 NW (081° 4.6 NM from ARD VOR)
213 H52 6-24 (3) (S-30, T-, TT-) BL4, 11 S5 F4, JP4, 5
U2 REIL: Rnwy 6 FSS: PHILADELPHIA (DL)
REMARKS: Fee. Rnwy 6 apch restricted by poleline-glide angle 9 to 1.
TRENTON TOWER 119.3 122.5R
TRENTON GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R 109.3T
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089°. [2]090°-269°.

••• NEW MEXICO •••

ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE (077° 9.6 NM from ABQ VOR)
5352 H127 8-26 (4) (S-100, T-155, TT-445) BL4, 6, 8, 10
S5 F5, JP1, 4 U2 VASI: Rnwy 8
RVV: Rnwy 35 FSS: ALBUQUERQUE on Fld
REMARKS: Tkofs rnwys 03 and 35 restricted to conventional type acft DC-3 and smaller. First 1500' apch and rnwy 17 not visible to twr.
ALBUQUERQUE TOWER 118.3 126.2 122.5R 119.2
CLRNC DEL 119.2
ALBUQUERQUE GND CON 121.9
RADAR SERVICES: (BCN)
ALBUQUERQUE APP CON 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
ALBUQUERQUE DEP CON 121.1
TFC INFO Ctc APP CON on 123.9 25 mi out.
PAR Rnwy 8[1] Ceil 300 Vsby 3/4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS[2] 110.3 I-ABQ Apch Brg 350°
REMARKS: [1]500-1 1/2 rqrd for civil jet acft. [2]Glide slope unusable below 3907'.
VOT: 111.0

HOBBS, LEA COUNTY *IFR* 4 W (030° 3.5 NM from HOB VOR)
3659 H63/3-21 (4) BL4, 6 S5 F4 U2
FSS: HOBBS on Fld
TOWER 118.3 126.2 122.5R 215T GND CON 121.9

NEW MEXICO—Continued

ROSWELL MUNI *IFR* 1 NW (027° 4.9 NM from ROW VOR)
3623 H55/12-30 (4) (S-40, T-55, TT-) BL4 S5 F4
FSS: ROSWELL on Fld
REMARKS: Rgt tfc rnwys 12, 17, 21, 26
TOWER[1] 118.5 122.5R GND CON 121.9
WALKER APP CON 123.8 126.2x 122.7R 120.2x
WALKER DEP CON 123.8 122.7R
TFC INFO Ctc Walker APP CON 30 mi out on 123.8, 120.2 122.7R
REMARKS: [1]Oper 1300-0500Z.

SANTA FE COUNTY MUNI *IFR* 9 SW (332° 4.2 NM from SAF VOR)
6344 H83/2-20 (3) (S-45, T-60, TT-) BL4 S5 F4, JP1
FSS: SANTA FE on Fld
TOWER 126.2 122.5R 119.5 GND CON 121.7

*** NEW YORK ***

ALBANY COUNTY *IFR* 6 NW (ALB VOR on fld) AOE
288 H50/1-19 (3) (S-110, T-200, TT-400) BL4, 6, 8 S5
F5, JP1, 4 RVV: Rnwy 19 FSS: ALBANY on Fld
REMARKS: Fee. Rnwy 1 apch restricted by road-glide angle 1 to 1. Rnwy 33 apch restricted by trees-glide angle 1 to 1.
TOWER 119.5 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.0 124.7 122.5R 109.5T
DEP CON 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I-ALB Apch Brg 191°
VOT: 109.0

BETHPAGE
GRUMMAN-BETHPAGE *IFR* Adj W (265° 9 NM from DPK VOR)
119 H66/15-33 (2) (MAX-25) BL4 F5, JP4, 5
FSS: ISLIP (DL)
REMARKS: Clsd to public. Rnwy 10 apch restricted by poleline-glide angle 5 to 1.
TOWER[1] 126.2 121.3 323T GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 118.4
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2330Z Mon-Fri. [2]054°-110°. [3]110°-160°

BINGHAMTON
BROOME COUNTY *IFR* 7 N (076° 7 NM from BGM VOR)
1629 H56/16-34 (2) (S-120, T-160, TT-) BL4, 6, 8, 12 S5
F5, JP1 RVV: Rnwy 34 FSS: BINGHAMTON on Fld
TOWER 119.3 122.5R 114.3T 110.3T 112.1T
GND CON 121.9
RADAR SERVICES:
APP CON 118.6 DEP CON 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi
Min Alt 2029
ILS 110.3 I-BGM Apch Brg 338° BC unusable

BUFFALO AOE
GREATER BUFFALO INTL *IFR* 5 E (287° 3.6 NM from BUF VOR) 719 H56/5-23 (2) (S-120, T-180, TT-400)
BL4, 6, 11 S5 F5, JP1, 4, 5 RVV: Rnwy 23

NEW YORK—Continued

BUFFALO—Continued
REIL: Rnwys 23 and 31 FSS: BUFFALO [illegible] F
REMARKS: Fee. Ctn apch restricted rnwy 23. 4745 ft [illegible] rnwy 23.
TOWER 120.5 122.5R
CLRNC DEL 124.7 GND CON [illegible]
RADAR SERVICES:
BUFFALO APP CON 120.1 126.2 122.5R 123.7 [illegible]
BUFFALO DEP CON 125.5
TFC INFO Inbnd acft ctc BUFFALO APP CON or [illegible].1 126.2 aprx 2 5 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi
Min Alt 1119, Rnwy 13 Ceil 500 Vsby 1 mi Min Alt [illegible]
ILS 110.3 I-BUF Apch Brg 232°
VHF/DF available, contact BUFFALO APP CON
VOT: 109.0

CALVERTON
PECONIC RIVER *IFR* 2 W (091° 4.6 NM from RVH VOR)
75 H100/14-32 (2) (MAX-50) BL6 S5 F5, JP4, 5
FSS: ISLIP [illegible]
REMARKS: Clsd to public.
TOWER[1] 121.3 126.2 122.5R 3023.5R 323T
GND CON 121.9
ILS[2] 110.7 I-CTO Apch Brg 048°
REMARKS: [1]Oper 1200-0500Z. [2]Lclzr and glide slope monitored automatic shutdown 2400-0800 Mon-Sat; el[illegible] MM and OM unmonitored same hrs.

ELMIRA
CHEMUNG COUNTY *IFR* 5 NW (066° 6.6 NM from ELM VOR)
951 H56/6-24 (3) (MAX-69) BL5, 6, 8 S5 F5, JP[illegible]
FSS: ELMIRA [illegible]
ELMIRA TOWER 121.1 122.5R ELMIRA GND CON [illegible]
ELMIRA APP CON 121.1 122.5R 127.25[1]
ILS 109.1 I-ELM Apch Brg 239° BC restricted
REMARKS: [1]For IFR acft operg Thompson Co Arpt, Ithaca N.Y.

FARMINGDALE
REPUBLIC AVIATION CORP *IFR* Adj NE (245° 6.2 NM from DPK VOR)
82 H75/14-32 (2) (MAX-25) L4 F4, JP4 FSS: [illegible]
REMARKS: Clsd to public. Rft tfc rnwy 32.
TOWER[1] 121.3 126.2 122.5R
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 126.05 123.7 [illegible]
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2030Z. [2]054°-110°. [3]110°-160°

ISLIP
MacARTHUR FIELD *IFR* 7 NE (057° 5.3 NM from ISLIP [illegible])
98 H50/6-24 (3) (S-60, T-80, TT-) BL4, 6, 7, 12 S5
F5, TP1 FSS: ISLIP [illegible]
REMARKS: Rnwy 28 apch restricted by trees-glide angle [illegible]
TOWER 119.3 126.2 122.5R 110.1T 3023.5R
GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
ILS 108.3 I-ISL Apch Brg 057°
REMARKS: [1]054°-110°. [2]110°-160°

NEW YORK—Continued

'ORK
N F KENNEDY INTL *IFR* 11 SE (JFK VOR on fld)
H146 13R-31L (5) (S-100, T-185, TT-340) BL6, 8A, 10, 14, 15 S5 F5, JP1, 4 U2 VASI: Rnwy 13R
VV Rnwys 22L, 25L, 31R REIL: Rnwy 13L
VR: Rnwys 31L, 4R FSS: ISLIP (DL)
EMARKS: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R-31L, 14,572' with lndg threshold 13R displaced 2600' 31L displaced 3324'. Rnwy 7-25 clsd excp for taxiing acft. Rnwy 4L-22R extended to 11,350' with lndg threshold rnwy 22R displaced 3020'.
ENNEDY TOWER 119.1 134.1 122.7R 110.9T 109.5T
CLRNC DEL 121.65 KENNEDY GND CON 121.9
ADAR SERVICES: (BCN)
KENNEDY APP CON 118.0 134.1 123.7 122.7R 120.8 118.4 109.5T
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
TFC INFO Call Kennedy Tower on 120.8 or 127.05
PAR Rnwy 4R Ceil 200 Vsby 1 2 mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612. Rnwys 22R, 25L Ceil 500 Vsby 1 mi Min Alt 512. Rnwys 7R, 31R Ceil 400 Vsby 1 mi Min Alt 412
S 109.5 I-JFK Apch Brg 043°; 110.9 I-IWY[3] Apch Brg 223°, 111.5 I-RTH[4] Apch Brg 312°. BC unusable.
IF DF available, contact tower
EMARKS: [1]054°-110°, [2]110°-160°. [3]LOM unreliable due to intermittent interference from San Juan, Puerto Rico Rbn. [4]Glide slope unusable below 212' MSL due roughness.
VOT: 112.0

GUARDIA *IFR* 4 E (178° 0.4 NM from LGA VOR)
H60 13-31 (2) (S-80, T-105, TT-105) BL6, 8A, 10, 11
F5, JP1 U2 VASI: Rnwys 13 and 31 TPA: 1500
/V: Rnwy 4 FSS: TETERBORO (DL)
EMARKS: Fee. Rnwy 31 threshold displaced 175 ft NW. 5813 avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior pmsn.
LA DEP PROC: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
WER 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
CLRNC DEL 126.15 GND CON 121.7
DAR SERVICES: (BCN)
APP CON 125.7 122.7R 118.9 109.9T 108.5T
0.5T DEP CON 120.4 128.8
TFC INFO All VFR tfc inbnd ctc APP CON West of Hudson River 125.7, East of Hudson River 118.9
PAR[1] Rnwy 4 Ceil 400 Vsby 3/4 mi Min Alt 421
ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721. wy 31 Ceil 600 Vsby 1 mi Min Alt 621 2 mi
5 109.9 I-LGA[1] Apch Brg 044° BC unusable; 108.5 I-GDI[2] Apch Brg., 135°; 110.5 I-URD[3] Apch Brg 224° 135° BC unusable
F DF[4] available, contact. APP CON
MARKS: Flwg shutdown indef due arpt constrn: Rnwy 22 ILS and apch lgts; Rnwy 4 ILS, Rnwy 13 VASI; PAR adv svc to Rnwy 22. [1]Lclzr unusable below 2000' MSL beyond 17 nmi. Lclzr and glide slope shut down UFN for rnwy constrn. LOM unusable beyond 9 nmi between 235-245° acct erroneous needle action. [2]Front crs unusable beyond 15 nmi below 2500'. BC unusable beyond 15 nmi below 3000'. [3]Lclzr shut down indefinitely due rnwy constrn. LOM subject to 30° oscillations in W quad. [4]VHF DF coverage at 40 mi: 360-015, 4000'; 015-100°, 3000'; 100-110°, 2000'; 110-260°,

NEW YORK—Continued

LA GUARDIA (Continued)
2500', 260-280°, 3000'; 280-360°, 4000'. [5]PAR advisory service for rnwy 22 unavbl for indefinite period due rnwy constrn.
VOT: 109.0

NIAGARA FALLS MUNI *IFR* 4 E (277° 4.2 NM from IA LOM)
590 H91 10L-28R (4) (S-90, T- , TT-) BL4, 6, 8 S3
F5 FSS: BUFFALO (DL)
REMARKS: First 1000 ft rnwy 28R 10L clsd periodically due const. No signal S5-SR to indicate IFR conditions less than 3 mi and or ceil less than 1000 ft.
NIAGARA TOWER 118.5 126.2 122.7R 110.1T
NIAGARA GND CON 121.7
RADAR SERVICES:
BUFFALO APP CON 123.7 126.2 122.5R 120.1 110.3T 278T
BUFFALO DEP CON 125.5
ILS 110.1 I-IAG Apch Brg 277°. BC unusable.
VHF DF available, contact tower.

ROCHESTER-MONROE CO *IFR* 3 SW (ROC VOR on fld) AOE
560 H70 4-22 (5) (S-120, T-190, TT-320) BL4, 6, 8A, 9 S5
F5, JP1 U2 RVV: Rnwy 28 FSS: ROCHESTER on Fld
REMARKS: Rnwy 30 threshold displaced 690 ft NW. 2351 ft avbl lndg rnwy 30. Fee for acft over 5000 lbs. No signal S5-SR to indicate IFR conditions.
TOWER 118.3 122.5R 278T[x] GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 124.0 120.7 122.5R
DEP CON 121.0
TFC INFO Ctc APP CON on 124.0
ASR Rnwy 1 Ceil 600 Vsby 1 1/2 mi Min Alt 1160.
Rnwy 7 Ceil 700 Vsby 1 1 2 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 1 2 mi Min Alt 960
Rnwy 28 Ceil 800 Vsby 1 1 2 mi Min Alt 1360
ILS[1] 109.5 I-ROC Apch Brg 277° BC unusable
REMARKS: [1]Glide slope unusable below 760' due crs roughness.

SCHENECTADY COUNTY *IFR* 2 N (GVI RBn on Fld)
378 H70 4-22 (3) (S-50, T , TT) BL4, 6 S5
F5, JP4, 5 U2 FSS: ALBANY (DL)
REMARKS: Lgts prior req after 0300Z. First 100 ft apch end rnwy 10 not vis fm ctl twr. Rnwy 28, 15 and 33 apchs rest by trees -glide angle 1 to 1.
TOWER[1] 126.2 121.3 3023.5R 356T
RADAR SERVICES:
ALBANY APP CON 125.0 124.7 122.5R 109.5R
ALBANY DEP CON 125.2
VHF/DF available, contact tower.
REMARKS: [1] Oper 1100-0300Z

SYRACUSE
HANCOCK *IFR* 4 NE (131° 4.7 NM from SYR VOR)
421 H90 10-28 (3) (S-120, T-190, TT-350) BL4, 6, 8, 14 S5
F5, JP4 RVV: Rnwy 28 FSS: SYRACUSE on Fld
REMARKS: Rnwy 6-24 limited to acft 12,500 lbs GWT or less.
SYRACUSE TOWER 126.2 122.5R 119.9
SYRACUSE GND CON 121.7
SYRACUSE APP CON 126.2 122.5R 120.3 117.0T 109.9T
SYRACUSE DEP CON 125.6
ILS 109.9 I-SYR Apch Brg 278°

NEW YORK—Continued

UTICA
ONEIDA COUNTY *IFR* 7 NW (318° 11.6NM from UCA VOR)
742 H60/15-33 (2) (S-60, T-80, TT) BL4, 6, 8 S5 F2
U2 FSS: UTICA on Fld
REMARKS: Rgt tfc rnwy 9 & 15.
UTICA TOWER 118.1 122.5R 109.3T
UTICA GND CON 121.9
RADAR SERVICES: (BCN)
GRIFFISS APP CON 118.5 134.1 122.5R
GRIFFISS DEP CON 120.9
ILS 109.3 I-UCA Apch Brg 329°

WHITE PLAINS
WESTCHESTER COUNTY *IFR* 3 NE (162° 4.8 NM from HP LOM)
439 H65/16-34 (3) (S-60, T-220, TT) BL4, 8 S5
F5, JP5 U2 FSS: ISLIP (LC3-4330)
REMARKS: Rnwy 12 & 30 apchs restricted by trees-glide angle 1 to 1. Fee.
TOWER 119.7 126.2 122.5R 109.7T 3023.5Rx
GND CON 121.9
APP CON 121.2 122.5R 109.7T 3023.5Rx
ILS 109.7 I-HPN Apch Brg 162° BC unusable

*** NORTH CAROLINA ***

ASHEVILLE MUNI *IFR* 9 S (160° 5.8 NM from ABN RBn)
2161 H65/16-34 (1) (S-24, T-75, TT-125) BL6, 8 S5
F5, JP1, 4 U2 VASI: Rnwy 16 RVV: Rnwy 34
FSS: GREER (LC 684-4401)
REMARKS: Rgt tfc NW.
TOWER 121.1 122.5R GND CON 121.9
APP CON 123.6 122.5R
ILS[1] 110.5 I-AVL Apch Brg 342° BC restricted
REMARKS: [1]Lclzr unusable from MM to rnwy. Glide slope unusable below 2310' MSL.

CHARLOTTE
DOUGLAS MUNI *IFR* 4 W (CLT VOR on Fld)
748 H75/5-23 (2) (S-50, T , TT)* BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 5 FSS: HICKORY (LC ED 2-7262)
REMARKS: *(Rnwy 18-36-(S-60))
CHARLOTTE TOWER 118.1 126.2 124.0 122.5R
109.5T
CHARLOTTE GND CON 121.9
RADAR SERVICES:
CHARLOTTE APP CON 120.5 126.2 122.5R 119.0
109.5T
CHARLOTTE DEP CON 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 MI
Min Alt 1148
ILS[2] 109.5 I-CLT Apch Brg 050° BC unsuable
REMARKS: [1]On apch, maint 1300 or abv til 2.5 mi fm apch end of rnwy 23 on final. [2]Lclzr unusable above 7000' acct freq interference. Glide slope unusable below 948' MSL.
VOT: 112.0

NORTH CAROLINA—Continued

FAYETTEVILLE
GRANNIS FIELD *IFR* 3 S (FAY VOR on Fld)
189 H50/3-21 (2) (S-64, T-120, TT-200) BL4, 6 S5
F4, JP4 FSS: FAYETTEVILLE
REMARKS: Rnwy 16 & 34 apch restricted by trees-glide angle 0 to 1.
FAYETTEVILLE TOWER 118.3 122.5R
FAYETTEVILLE GND CON 121.7
RADAR SERVICES: (BCN)
FAYETTEVILLE APP CON[1] 120.6
FAYETTEVILLE DEP CON 120.4
ILS[1] 110.5 I-GRA Apch Brg 034° BC unusable
REMARKS: [1]Lclzr usable area restricted to 35° either side crs. All other areas unusable.

GREENSBORO-HIGH POINT *IFR* 7 W (030° 3 NM from GSO VOR)
927 H64/14-32 (2) (S-40, T-55, TT) BL4, 6, 8 S5
F4, JP5 U2 RVV: Rnwy 14 FSS: RALEIGH (LC BR 5o
GREENSBORO TOWER 119.1 126.2 122.5R 109.9T
GREENSBORO GND CON 121.9
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 [illegible]
109.9T GREENSBORO DEP CON 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min A
1327
ILS[1] 109.9 I-GSO Apch Brg 138°
REMARKS: [1]Glide slope unusable below 1127' MSL.

RALEIGH-DURHAM *IFR* 9 NW (RDU VOR on Fld)
435 H75/5-23 (3) (S-111, T-135, TT-300) BL4, 6, 9 S5
F5, JP1 U2 RVV: Rnwy 5 FSS: RALEIGH
REMARKS: [illegible] signal btn SS-SR indc gnd vsby of less than 2.6 NM and/or ceil less than 1000 ft. Rnwy 14-32 and s ft txwys lmtd to 50,000 lbs GWT
TOWER 119.3 126.2 122.5R 109.5T GND CON 121.8
RADAR SERVICES: (BCN)
RALEIGH APP CON[1] 125.3 122.5R 120.6
TFC INFO Inbnd acft etc APP CON 25 mi out on 125.3
RALEIGH DEP CON 120.6 124.8
ILS[1] 109.5 I-RDU Apch Brg 049°
REMARKS: [1]Glide slope unusable below 635' MSL.

WILMINGTON
NEW HANOVER CO *IFR* 2 NE (201° 5 NM from ILM VOR
31 H70/16-34 (3) (S-120, T , TT)* BL4, 6, 8 S5
F5, JP5 FSS: NEW BERN (LC 7[illegible]
REMARKS: *(S-90, T-120, TT-212) avbl rnwy 5-23
(S-30, T-48, TT-86) avbl rnwy 9-27
WILMINGTON TOWER 119.9 122.5R 110.3T 3867
CLRNC DEL 121.9
WILMINGTON GND CON 121.9
WILMINGTON APP CON 123.6 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° BC unusable
REMARKS: [1]Lclzr unusable MM to touchdown. Lclzr and glide slope shut down til May 15 for relctn.

NORTH CAROLINA—Continued

ON-SALEM
H REYNOLDS *IFR* 2 NE (328° 3.9 NM from IN LOM)
9 H66 15-33 (3) (S-45, T-60, TT) BL4, 6, 8, 12 S5
, JP5 U2 RVV: Rnwy 33
FSS: WINSTON SALEM (LC PAS1731)
MARKS: Apch and rnwy lgts 15-33 oper 2300-0700 only.
NSTON-SALEM TOWER[1] 118.7 126.2 122.7R 278T
INSTON-SALEM GND CON 121.7
DAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 109.9T
GREENSBORO DEP CON 124.6
S[2] 110.3 I-INT Apch Brg 328° BC unusable
MARKS: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1067' MSL.

••• NORTH DAKOTA •••

CK MUNI *IFR* 2 SE (272° 3.6 NM from BIS VOR)
53 H69 12-30 (3) (S-70, T-95, TT-150) BL4, 6, 8 S5
RVV: Rnwy 30 FSS: BISMARCK on Fld
MARKS: Rnwys 17-35, 2-20 and E-W taxwy restricted to acft over 26,000 lbs except when auth by twr. First 800' rnwy 12 clsd to lndg acft.
WER 118.3 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.3
S 110.3 I-BIS Apch Brg 306°

)
TOR FIELD *IFR* 2 NW (171° 4.6 NM from FAR RBn)
) H91 17-35 (3) (S-90, T-120, TT) BL4, 6, 8 S5
, JP1, 4 U2 RVV: Rnwys 17, 35 FSS: FARGO on Fld
RGO TOWER 118.3 122.5R
FARGO GND CON 121.9
FR ADV Ctc APP CON on 125.8 25 mi out.
FARGO APP CON 125.8 110.3T 365T
S 110.3 I-FAR Apch Brg 351°

••• OHIO •••

MUNI *IFR* Adj SE (255° 12.4 NM from ACO VOR) AOE
59 H53 7-25 (4) BL4, 6 S5 F5, JP1
IL: Rnwys 7 and 25 FSS: AKRON on Fld
WER 120.1 122.7 110.9T
MARKS: Poles E. Obstns lgt inop SE hill apch rnwy 32
GND CON 121.9
DAR SERVICES:
AKRON-CANTON APP CON 125.5 126.2 122.5R 109.5T
AKRON-CANTON DEP CON 118.6
S 110.9 I-AKR Apch Brg 246°

OHIO—Continued

AKRON-CANTON *IFR* 10 SE (227° 15.4 NM from ACO VOR)
1228 H56 1-19 (4) (S-84, T-108, TT-168) BL4, 6, 8, 11 S5
F5, JP1 RVV: Rnwy 1 REIL: Rnwy 23 FSS: AKRON
REMARKS: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
TOWER 126.2 122.5R 118.3 109.5T
GND CON 121.7
RADAR SERVICES:
APP CON 125.5 126.2 122.5R 109.5T
DEP CON 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400
Vsby 1 mi Min Alt 1628
ILS 109.5 I-CAK Apch Brg 006°
VOT: 112.0

COVINGTON, KY (CINCINNATI, OHIO)
GREATER CINCINNATI *IFR* 9 SW Cincinnati (043° 2.3 NM from CVG VOR)
890 H86 18-36 (3) (S-120, T-200, TT-345) BL4, 6, 8 S5
F5 REIL: Rnwy 27 FSS: CINCINNATI
REMARKS: Rnwy 4-22 clsd to acft over 30,000 lbs. Fee.
CINCINNATI TOWER 118.3 126.2 122.7R
CLRNC DEL 121.3
CINCINNATI GND CON 121.7
RADAR SERVICES:
CINCINNATI APP CON 124.7 126.2 122.7R 119.7
CINCINNATI DEP CON 121.0
ASR Rnwys 4, 9, 18, 36 Ceil 400 Vis 1 mi Min Alt 1290. Rnwys 22, 27 Ceil 700 Vis 1 mi Min Alt 1590
ILS 109.9 I-CVG Apch Brg 360° 110.9 I-SIC Apch Brg 180°
VHF DF available, contact tower or radar
VOT: 108.4

CINCINNATI MUN-LUNKEN FLD *IFR* 3 SE (227° 4.4 NM from LUK Rng.)
488 H61 2R-20L (4) (Max-45) BL4, 6, 8 S5 F4, JP4 U2
FSS: CINCINNATI on Fld
LUNKEN TOWER 126.2 122.5R 118.7
LUNKEN GND CON 121.9
RADAR SERVICES:
CINCINNATI APP CON 119.7 126.2 124.7 122.7R
112.9T CINCINNATI DEP CON 121.0

CLEVELAND
BURKE LAKEFRONT Adj N (069° 23.6 NM from CLE VOR)
584 H52/6-24 (1) (S-31, T-37, TT-55) BL6 S5 F4, JP1
U2 FSS: CLEVELAND (DL)
REMARKS: Fee.
LAKEFRONT TOWER[3] 126.2 122.5R 120.9
LAKEFRONT GND CON 121.9
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 1200-0400Z

CLEVELAND-HOPKINS INTL 9 SW (015° 4.5 NM from STG VOR)
AOE
792 H90/5R-23L (5) (S-54, T-78, T-126)* BL4, 6, 8A, 10
S5 F5, JP1, 4 U2 VASI: Rwy 23R RVR: Rnwy 5R
FSS: CLEVELAND on Fld
REMARKS: *(S-125, T-188, TT-338) avbl rnwy 9-27.

OHIO—Continued

CLEVELAND-HOPKINS INTL—Continued

CLEVELAND TOWER 119.9 126.2 122.7R
CLRNC DEL 127.4 CLEVELAND GND CON 121.7
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2] 110.7T 109.9T CLEVELAND DEP CON 121.0
ASR Rnwys 5R, 5L, 9, 18R, 18L, 23R, 23L, 27, 36R, 36L Ceiling 500 Vsby 1½ mi Min Alt 1292
ILS 109.9 I-CLE Apch Brg 054° 110.7 I-CEE[3] Apch Brg 277°
VHF/DF available, contact tower
REMARKS: [1]270°-089° [2]090°-269°. [3]ILS unusable below 1030' MSL due lclzr crs roughness.
VOT: 110.4

COLUMBUS MUNI *IFR* 6 E (276° 5.4 NM from CM LOM)
816 H107/10R-28L (5) (S-100, T-200, TT-370)* BL4, 6, 8,11 S5 F5, JP1, 4 U2 RVV: Rnwy 10L
REIL: Rnwys 10R, 28R FSS: COLUMBUS on Fld
REMARKS: *(S-180, T-200, TT-400) avbl rnwy 10L-28R. Due non-vsby some areas of fld, ctc twr.
TOWER 126.2 121.1 109.1T 3023.5R
CLRNC DEL 121.3 GND CON 121.9
RADAR SERVICES:
APP CON 119.0 126.2 125.4 122.5R 109.5T 3023.5R DEP CON 120.5 126.2
ASR Rnwys 10R, 10L, 13, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316. Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416
ILS 109.1 I-CBP Apch Brg 096° 109.5 I-CMH[1] Apch Brg 276°
VHF/DF available, contact tower
REMARKS: [1]Front crs unusable above 4000' MSL beyond 11 nmi.
VOT: 111.0

DAYTON

JAMES M COX-DAYTON MUNI *IFR* 9 N (236° 3.9 NM from TPC RBn.)
1008 H70/6-24 (2) (S-120, T-180, TT-400) BL4, 6, 8 S5 F5, JP1 U2 RVV: Rnwy 6 REIL: Rnwy 24
FSS: DAYTON on Fld
REMARKS: P-line SE.
DAYTON TOWER 119.5 126.2 122.5R
CLRNC DEL 125.2 DAYTON GND CON 121.9
RADAR SERVICES: (BCN)
DAYTON APP CON 118.0 122.7R 111.6T 110.3T
DAYTON DEP CON 119.9
ILS 110.3 I-DAY Apch Brg 056°
VOT: 111.0

MANSFIELD MUNI 3 N (131° 4.1 NM from MFD VOR)
1296 H90/14-32 (2) (S-75, T-100, T-) BL4, 6, 8, S5 F4, JP4 U2 RVV: Rnwy 32 FSS: MANSFIELD on Fld
TOWER 119.3 122.5R 110.5T GND CON 121.9
APP CON 124.7 122.5R 110.5T 108.8T
ILS 110.5 I-MFD Apch Brg 320°
REMARKS: ILS shut down USN until June 1

SPRINGFIELD MUNI *IFR* 5 S (237° 2.6 NM from SGH RBn)
1049 H90/5-23 (3) (S-190, T-200, TT-380) BL4 S5 F4, JP4 U2 FSS: DAYTON (LC FA 24562)
TOWER [2]120.7 126.2 GND CON 121.7
RADAR SERVICES: (BCN)

OHIO—Continued

SPRINGFIELD MUNI—Continued

DAYTON APP CON [1]118.4 DAYTON DEP CON [1]134.1
REMARKS: [1]All IFR tfc lndg this area call DAYTON APP CON. [2]Oper 1245-2130Z daily clsd holidays.

TOLEDO, EXPRESS *IFR* 9 SW (320° 10.5 NM from VWV VOR
684 H87/7-25 (2) (S-107, T-163, TT-287) BL4, 6, 8 S5 F5, JP4 U2 RVV: Rnwy 7 FSS: FINDLAY (LC 24[illegible]
TOLEDO TOWER 118.1 126.2 122.5R 109.7T
TOLEDO GND CON 121.9
RADAR SERVICES: (BCN)
TOLEDO APP CON 123.8 128.0 122.5R 113.1T 109.7T TOLEDO DEP CON 119.2
ASR Rnwys 7, 16, 25, 34 Ceil 400 Vsby 1 mi M-A-1084
ILS 109.7 I-TOL Apch Brg 069°
VHF/DF available, contact tower.

WILLOUGHBY

LOST NATION *IFR* 2 N (LNN RBn on field)
626 H50/9-27 (3) BL4, 11 S5 F4, JP4
REIL: Rnwys 5, 23 FSS: CLEVELAND
REMARKS: Fee. Rnwy 9, 27 and 36 restricted by pole-glide angle 4 to 1 and less.
TOWER[2] 120.7 122.5R
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 0230-1430Z

YOUNGSTOWN MUNI *IFR* 10 N (183° 4.1 NM from YNG VOR
1196 H75/14-32 (3) (S-116, T-160, TT-270) BL4, 6, 8 S5 F4 U2 RVV: Rnwy 32 FSS: YOUNGSTOWN
REMARKS: Rnwy 5 apch restricted by brush-glide angle 1 to 1.
TOWER 119.5 126.2 122.5R GND CON 121.9
APP CON 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320°
VHF/DF available, contact tower.

*** OKLAHOMA ***

LAWTON MUNI *IFR* 2S
1109 H54 (1) BL4 S5 F5 JP1
FSS: WICHITA FALLS (LF E[illegible]
REMARKS: P-line, ant NE
TOWER:[1] 119.1 122.5R GND CON [illegible]
TFC INFO: Ctc Fort Sill APP CON 118.6 122.5R DEP CON 118.6
REMARKS: [1]Opers 1300-0500Z. (To be comsnd)

MUSKOGEE

DAVIS FLD *IFR* 6 S (MKO RBn on field)
610 H72/13-31 (2) (S-60, T-160, TT-) BL6, 8
FSS: TULSA
TOWER[1] 119.2 126.2
REMARKS: [1]1430-2230Z

OKLAHOMA CITY

WILEY POST *IFR* 7 NW (040° 8.1 NM from OKC VOR)
1303 H54/17-35 (3) BL4 S5 F4, JP4 U2
FSS: OKLAHOMA CITY
REMARKS: Rgt tfc rnwys 12 and 17.
TOWER[1] 119.7 122.5R GND CON 121.7

OKLAHOMA—Continued

POST—Continued
ADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5
OKLAHOMA CITY DEP CON 121.1
MARKS: [1]Oper 1200-0400Z.

ROGERS WORLD *IFR* 6 SW (097° 8.1 NM from OKC VOR)
34 H98 17-35 (3) (S-120, T-160, TT) BL4, 6, 8 S5
, JP1, 4 U2 VASI: Rnwy 17 RVV: Rnwy 35
FSS: OKLAHOMA CITY (DL)
MARKS: Rnwy 3-21 and twy (C-1) W side rnwy 3 restricted o 15000 lbs or less.
WER 118.3 126.2R 122.7R GND CON 121.9
DAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5 OKLAHOMA CITY DEP CON 121.1
ASR Rnwy 17, 35 Ceiling 400 Vsby 1 mi Min Alt 1684
[1] 109.9 I-OKC Apch Brg 350°
MARKS: [1]Glide slope unusable below 1417' MSL.
T: 108.8

INTL *IFR* 5 NE (259° 4.3 NM from TUL VOR)
H100/17L-35R (5) (S-200, T-200, TT-400) BL4, 6, 8
F5, JP1, 4 U2 VASI: Rnwy 17L RVR: Rnwy 35R
FSS: TULSA on Fld
MARKS: Rgt tfc rnwys 17 R, 21R. Rnwy 35L thsld dis-placed 510', 3690' avbl for tkof.
WER 118.7 126.2 122.5R
CLRNC DEL 124.0 GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 119.1 122.5R 110.3T DEP CON 120.7
TFC INFO Ctc APP CON on 119.1 25 mi out
ASR Rnwys 17L, 26[1], 35R Ceiling 400 Vsby 1 mi
Min Alt 1074
S 109.7 I-DWE [2]Apch Brg 174° BC unusable 110.3 -TUL [3]Apch Brg 354° BC unusable ILS's not operd simultaneously
MARKS: [1]500-1 required when apch is made until passing is stab over 910 stack 3 mi E. [2]Lclzr unusable from MM to touchdown. Glide slope unusable below 645' MSL due rough-ness. [3]Front crs unusable above 6600' MSL. BC unusable above 4600' MSL; unusable for automatic apchs. Both sys-tems not operd simultaneously.
VOT: 109.0

RIVERSIDE *IFR* 5S
H40(1) BL4 S5 F4 FSS: TULSA (LC TE 8-3316)
WER:[1] 118.1 GND CON 121.7
MARKS: [1]0600-2200Z (To be comsnd Mar 1, 1965)

OREGON

E
ON-SWEET FLD *IFR* 7 NW (EUG VOR on field)
S H55/16-34 (2) (S-100, T-200, TT-380) BL4, 6, 8 S5
, JP1 U2 RVV: Rnwy 16 FSS: EUGENE on Fld
MARKS: Rnwy lgts on req thru FSS.
GENE TOWER 118.9 122.5R
EUGENE APP CON 118.9 122.5R 112.9T
EUGENE GND CON 121.9
S 109.5 I-EUG Apch Brg 159°

OREGON—Continued

KLAMATH FALLS
KINGSLEY FLD *IFR* 4 SE (LMT VOR on Fld)
4092 H103 14-32 (3) (S-100, T-200, TT380) BL4, 6, 8 S5
F4, JP1 U2 FSS: KLAMATH FALLS on Fld
TOWER 118.5 126.2 122.5R 269T
GND CON 121.9
KLAMATH APP CON 118.5 126.2 122.5R 115.9T
242T
ILS[1] 109.5 I-LMT Apch Brg 318°
REMARKS: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 nmi 20° E of cntrline extended.

MEDFORD MUNI *IFR* 2 N (145° 6.3 NM from MFR VOR)
1330 H54/14-32 (2) S-80, T-120, TT-180) BL5, 6, 8 S5
F4, JP1 U2 RVV: Rnwy 14 FSS: MEDFORD on Fld
TOWER 118.3 126.2 122.5R 278T
GND CON 121.9
APP CON 119.8 110.3T 113.6T
ILS[1] 110.3 I-MFR Apch Brg 139°
VHF/DF[2] available, contact tower.
REMARKS: [1]ILS not certified for automatic apchs. [2]VHF DF coverage 40 nmi at MEA excp 360-015°, 9000'; 015-030°, 10,000'; 030-057°, 11,000'; 120-210°, 13,500'; 315-350°, 8000'; 350-360°, 8500', 057-075°, 30 nmi at 11,000'; 075-120°, 30 nmi at 13,500'; 210-225°, 30 nmi at 12,000'; 225-250°, 30 nmi at 10,500'.

PENDLETON MUNI *IFR* 2 NW (071° 3.6 NM from PDT VOR)
1493 H63/7L-25R (4) (S-70, T-100, TT-170) BL4, 6, 8 S5
F4 U2 RVV: Rnwy 25 FSS: PENDLETON on Fld
REMARKS: Rnwy 25L threshold displaced 821' W. 2029 ft avbl lndg rnwy 25L, 7R-25L dalgt operns only lgt planes.
TOWER 118.7 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.7 114.7T 3023.5Rx 341T
ILS 110.3 I-PDT Apch Brg 250°

PORTLAND INTL *IFR* 4 NE (159° 9.2 NM from PDX VOR)
23 H88/10R-28L (3) (S-100, T-200, TT-400) BL4, 6, 8A, 10 S5 F5, JP4 U2 RVV: Rnwy 28R RVR: Rnwy 10R
FSS: PORTLAND on Fld
TOWER 118.7 126.2 122.7R CLRNC DEL 119.0
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1[2] 126.2 122.5R 119.8[3] 109.9T
DEP CON 124.9
TFC INFO Ctc APP CON
PAR Rnwy 10R Ceiling 200 Vsby ½ mi Min Alt 223
ASR Rnwys 10R[1], 28R Ceiling 700 Vsby 1 mi Min Alt 723
ILS 109.9 I-PDX[4] Apch Brg 098° BC restd 111.3 I-IAP Apch Brg 278°
VHF/DF available, contact tower.
REMARKS: [1]Min alt over 3-mi radar fix inbnd on final, 900. [2]270-089° [3]090-269° [4]BC restricted; usable distance 12 nmi.
VOT: 111.0

SALEM-MCNARY FLD *IFR* 1 SE (309° 4 NM from SL LOM)
207 H50/13-31 (2) (S-66, T-88, TT-75) BL4, 6 S5 F4
U1 RVV: Rnwy 31 FSS: PORTLAND (DL)
REMARKS: Rnwy 16-34 unlgtd clsd daily fm 30 mins before SS til 30 mins after SR and when wea is below VFR mins.
ILS 110.3 I-SLE Apch Brg 309°

OREGON—Continued

TROUTDALE Adj NW (124° 13.6 from PDX VOR)
36 H46/7-25 (1) (Max-10) BL4 S5 F4 U2
RVV: Rnwy 7 FSS: PORTLAND (DL)
REMARKS: Rnwy 7 threshold displaced 400 ft E. 4241 ft avbl lndg rnwy 7. Rnwy 25 threshold displaced 500 ft W. 4141 ft avbl lndg rnwy 25.
TOWER 120.5 122.5R GND CON 121.7
RADAR SERVICES:
PORTLAND APP CON 118.1[1] 119.8[2]
PORTLAND DEP CON 124.9
REMARKS: [1]270-089° 090-269°

*** PENNSYLVANIA ***

ALLENTOWN-BETHLEHEM-EASTON *IFR* 3 NE (180° 4.1 NM from ABE VOR)
388 H62/6-24 (4) (S55, T-76, TT-125) BL4, 6, 8 S5 F5 U2 RVV: Rnwy 6 FSS: ALLENTOWN on Fld
REMARKS: 5210' avbl lndg rnwy 24. Rnwy 14-32 open for ngt opern 2415' btn threshold lgts plus 175' of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
ALLENTOWN TOWER 120.5 122.5R 233T
CLRNC DEL 121.9
ALLENTOWN GND CON 121.9
ALLENTOWN APP CON 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061°

ERIE
PORT ERIE *IFR* 5 SW (059° 6 NM from ERI VOR)
732 H50/6-24 (3) (S-65, T-102, TT-190) BL4, 6, 8, 11 S5 F4, JP1 U2 RVV: Rnwy 24 REIL: Rnwy 24 FSS: ERIE on Fld
TOWER 118.1 122.5R 110.3T GND CON 121.9
APP CON 119.0 122.5R 110.3T
ILS[1] 110.3 I-ERI Apch Brg 059° BC unusable
REMARKS: [1]Glide slope unusable MM to touchdown.

HARRISBURG-YORK STATE *IFR* 3 S (108° 7.5 NM from HAR VOR)
347 H50/8-26 (3) (S-65, T-105, TT-185) BL4, 6, 8 S5 F4, JP1 U2 RVV: Rnwy 8 FSS: HARRISBURG on Fld
REMARKS: Rgt tfc rnwys 20 & 26. wt limit 130,000 lbs.
HARRISBURG TOWER 119.5 126.2 122.5R 118.8 109.1T
HARRISBURG GND CON 121.9
RADAR SERVICES: (BCN)
HARRISBURG APP CON 120.9 126.2 122.5R 109.1T
HARRISBURG DEP CON 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447. Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I-HAR Apch Brg 079° BC unusable

PHILADELPHIA
NORTH PHILADELPHIA *IFR* 10 NE (PNE VOR on FLD)
120 H50/6-24 (2) (Max-30) BL4, 8, S5 F4, JP1 U2 FSS: PHILADELPHIA on Fld
REMARKS: Rnwy 6 apch restricted by poleline.
TOWER 121.3 126.2 122.5R 112.0T
GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
REMARKS: [1]270°-089° [2]090°-269°

PENNSYLVANIA—Continued

PHILADELPHIA INTL *IFR* 5 SW (085° 5.9 NM from PH LCM
14 H95/9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A 1
F5, JP1, 4, 5 U2 RVR: Rnwy 9
FSS: PHILADELP-A
REMARKS: Rnwy 22 & 27 apch restricted by fence-glide c-
1 to 1. Ctn-const vic rnwy 27.
TOWER 118.5 122.7R CLRNC DEL 127.7
GND CON 121.9
RADAR SERVICES:
APP CON 127.2[1] 123.8[2] 122.7R
DEP CON 119.0[1] 128.55[2]
PAR Rnwy 9 Ceil 200 Vsby 1/2 mi Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min A. 514
ILS 109.3 I-PHL Apch Brg 085° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°
VOT: 111.0

PITTSBURGH
ALLEGHENY COUNTY *IFR* 4 S (052° 6.4 NM from PIT VOR
1252 H55/9-27 (3) (S-70, T-120, TT-210) BL 6, 8, 11
F5, JP5 U2 REIL: Rnwy 9, 23 and 30
FSS: PITTSBURGH
TOWER 121.1 126.2 122.5R 109.1T GND CON
RADAR SERVICES:
PITTSBURGH APP CON 123.6[1] 134.1 122.7R
PITTSBURGH DEP CON 125.9
ILS 109.1 I-AGC Apch brg 275° BC unusable
REMARKS: [1]270°-089° [2]090°-269°

GREATER PITTSBURGH *IFR* 12 NW (IRL VOR on FLD
1203 H105/10L-28R (4) (S-120, T-200, TT-400)
BL4, 6, 8A, 10, 14, 15 S5 F5, JP1, 4 VASI: Rnwy
RVV: Rnwy 10L REIL: Rnwy 32 FSS: PITTSBURGH
REMARKS: Fee. Steep drop-off apch end rnwy 28. Rnwy threshold displaced 491 ft W. 7509 ft avbl lndg rnwy US Customs lndg rts arpt.
PITTSBURGH TOWER 119.1 126.2 122.7R 110.3T
CLRNC DEL 121.3 PITTSBURGH GND CON
RADAR SERVICES: (BCN)
PITTSBURGH APP CON 123.6[1] 134.1 122.7R
PITTSBURGH DEP CON 125.9
TFC INFO Ctc Radar APP CON on 123.6 when opera- fm NW & NE, and on 118.7 fm SE & SW.
PAR Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 14
ASR Rnwys 5, 10R, 14, 23, 28R, 32 Ceil 500 Vsb- 1 mi Min Alt 1703. Rnwy 10L 28L Ceil 400 Vs- mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° 111.7 I-LXB[3] Ap- 097° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°. [3]Glide slope unus- below 1450' MSL due roughness.; tmprly displaced 5 closer cntrline.
VOT: 111.2

PENNSYLVANIA—Continued

NG
ERAL SPAATZ FIELD *IFR* 2 NW (001° 3.9 NM from RD
MI)
3 H51 18-36 (3) (S-30, T-45, TT-175) BL4, 6, 7, 12 S5
JP4 U2 FSS: HARRISBURG (LC 376-3045)
MARKS: Rgt tfc rnwy 5, 13 and 36.
ADING TOWER 119.9 126.2 122.5R 109.5T
READING GND CON 121.9
READING APP CON 119.9 126.2 122.5R 109.5T
109.5 I-RDG Apch Brg 001° BC unusable
F DF available, contact tower.

I-BARRE-SCRANTON *IFR* 9 NE (043° 3.9 NM from AV LOM)
H52 4-22 (3) (S-90, T-145, TT-240) BL4-6, 8A, 9
JP4 RVV: Rnwy 4 FSS: WILKES-BARRE on Fld
MARKS: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for
vt owned acft.
A DEP PROC: Rnwy 16, 22 Right hand tfc pattern.
KES-BARRE TOWER 120.1 122.5R 109.9T
KES-BARRE GND CON 121.9
DAR SERVICES:
ILKES-BARRE APP CON 124.5 122.5R 109.9T
ILKES-BARRE DEP CON 126.3
ASR Rnwy 4 Ceil 1000 Vsby 2 mi Min Alt 1956. Rnwy
10 Ceil 900 Vsby 1½ mi Min Alt 1856. Rnwy 22 Ceil
800 Vsby 1½ mi Min Alt 1756
[1] 109.9 I-AVP Apch Brg 043° BC Unusable
MARKS: [1]Glide slope unusable from MM to touchdown.

MSPORT-LYCOMING CO *IFR* 4 E (285° 6.1 NM from IP
G.
H50 9-27 (3) (S-44, T-70, TT-110) BL4, 6, 8 S5
JP1 FSS: WILLIAMSPORT on Fld
MARKS: Flashing amber indicating rgt turns for lndg
nwys, lctd SW corner of twr. Rnwy 15-33 open to acft 8000
bs and under. Rgt tfc rnwy 33, 27, 30. Rnwy 27 apch restrict-
by pole-glide angle 7 to 1. Rnwy 15 apch restricted by
oleline-glide angle 1 to 1.
LLIAMSPORT TOWER 119.1 122.5R
ILLIAMSPORT GND CON 121.9
ILLIAMSPORT APP CON 124.9 122.5R
110.1 I-IPT Apch Brg 266° BC Unusable

RHODE ISLAND

)ENCE
:N *IFR* 6 S (PVD VOR on fld)
H54 5R-23L (4) (S-90, T , TT) BL4, 6, 8 S5
JP1 U2 RVV: Rnwy 5R FSS: PROVIDENCE on Fld
MARKS: Fee. No mult engine lndgs 5L, no tkofs 23R.
WER 120.7 126.2 122.5R 109.3T 368T
:LRNC DEL 121.9 GND CON 121.9
DAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
109.3 I-PVD Apch Brg 046° BC Unusable

SOUTH CAROLINA

CHARLESTON AFB MUNI *IFR* 9 NW (CHS VOR on fld)
45 H90 15-33 (2) (S-50, T-155, TT-305) BL4, 6, 8 S5
FS, JP5 U2 VASI: Rnwys 15, 21, & 33
RVR: Rnwy 15, 21, 33 FSS: CHARLESTON on Fld
TOWER 126.2 122.5R 121.0 113.5T 109.7T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
APP CON 119.3 118.5 113.5T 109.7T
DEP CON 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min Alt 445
ILS[1] 109.7 I-CHS Apch Brg 149° BC Unusable
REMARKS: [1]Glide slope unusable below 100′ MSL.
VOT: 111.0

COLUMBIA
COLUMBIA *IFR* 5 SW (331°, 5.7 NM from CAE VOR)
211 H75 10-28 (1) (S-80, T-105, TT-) BL6, 8 S5 F5
JP1 U2 FSS: FLORENCE
TOWER 126.2, 122.5R 119.5 110.3T
GND CON 121.9
APP CON 118.2 122.5R 114.7T 110.3T
ILS[1] 110.3 I-CAE Apch Brg 046° BC unusable
REMARKS: [1]Lclzr unusable MM to rnwy acct rufness.

OWENS FIELD 1 SE (024° 8 NM from CAE VOR)
203 H36 15-33 (2) (S-150) L4 F4 U1
FSS: FLORENCE (LC 254-9791
REMARKS: Rgt tfc SE, NE. Clsd ngts to transient civ acft due unlgtd obstns. Rnwy 33 apch restricted by poleline-glide angle 5 to 1. Rnwy 15 & 25 apch restricted by roads-glide angle 0 to 1. Rnwy 7 apch restricted by poleline-glide angle 0 to 1.
TOWER[1] 126.2
COLUMBIA APP CON 118.2 122.5R 110.3T 227T
REMARKS: [1]Oper weekdays 1230-1630Z and 1745-2115Z. Sats 1230-1600Z.

GREENVILLE MUNI DOWNTOWN *IFR* 2 E (002° 3.6 NM from GR LOM)
1047 H54 18-36 (3) (S-40, T- , TT-) BL4, 6 S5
F4, JP1 U2 FSS: GREER (LC 239-3738)
REMARKS: Rgt tfc rnwys 18, 27, 23.
TOWER 119.9 126.2 122.5R 109.7T 391T
GND CON 121.9
RADAR SERVICES:
APP CON 118.0 126.2 124.3 122.5R 119.4 109.7T
DEP CON 118.8
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547
Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447
ILS[1] 109.7 I-GRL Apch Brg 002° BC unusable
REMARKS: [1]Glide slope unusable below 1347′ MSL.

GREER
GREENVILLE-SPARTANBURG *IFR* 3 S (033° 5.2 NM from GS LOM)
961 H76 3-21 (2) (MAX-60) BL6, 8, A, 9, 14, 15 S5 F5,
JP5 U2 RVV: Rnwy 3 FSS: GREER on Fld
REMARKS: Fee commercial only.
GREER TOWER 120.1 126.2 122.8R 115.7T 109.3T 209T
GREER GND CON 121.8
RADAR SERVICES:
GREENVILLE APP CON 118.0 126.2 124.3 122.5R
119.4 109.7T

SOUTH CAROLINA–*Continued*

GREENVILLE-SPARTANBURG–Continued
GREENVILLE DEP CON 118.8
ILS 109.3 I-GSP Apch Brg 033°

SPARTANBURG DOWNTOWN MEMORIAL *IFR* 2 SW (195° 6.9 NM from SPA VOR)
816 H52/4-22 (3) (S-30, T- , TT-) BL4, 6 S5
F5, JP1-5 FSS: GREER (LC 585-5470)
REMARKS: Unlgtd wind cone.
TOWER[1] 118.3 126.2 122.5R 317T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES:
GREENVILLE APP CON 124.3
GREENVILLE DEP CON 118.8
REMARKS: [1]Oper 1100-0300Z.

*** SOUTH DAKOTA ***

HURON
HOWES MUNI *IFR* 1 NW (124°, 4.1 NM from HON VOR)
1287 H51/12-30 (2) B*L6 S5 F2, 4 U1
FSS: HURON on Fld
REMARKS: Rnwy 17-35 clsd to acft over 3500 lbs; usable length 1875'.
ILS[1] 110.3 I-HON Apch Brg 118°
REMARKS: [1]Glide slope unusable below 1487' MSL acct slope roughness.

SIOUX FALLS
JOE FOSS FIELD *IFR* 2 NW (147° 4.1 NM from FSD VOR)
1428 H90/3-21 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwys 3, 21 REIL Rnwy 15
FSS: HURON (DL)
REMARKS: Rnwy 9-27 restricted of acft over 30,000 lbs, rnwy 3-21 & 15-33 rest to acft over 120,000 lbs.
TOWER 118.3 122.5R GND CON 121.9
APP CON 125.8 122.5R 115.0T 109.9T
245T
ILS 109.9 I-FSD Apch Brg 026°

*** TENNESSEE ***

BRISTOL
TRI-CITY MUNI *IFR* 12 SW (224° 6 NM from TR LOM)
1519 H66/4-22 (2) (S-90, T-120, TT-190) BL6, 8 S5 F5, JP1 U2 RVV: Rnwy 22 FSS: TRI-CITY on Fld
TOWER 119.5 126.2 122.5R 114.6T 109.9T
GND CON 121.9
APP CON 125.7 126.2 122.5R 114.6T
DEP CON 119.5 126.2
ILS[1] 109.9 I-TRI Apch Brg 224° BC unusable.
REMARKS: [1]Glide slope unusable below 1919' MSL. Lclzr unusable MM to rnwy; unusable above 6000' MSL

CHATTANOOGA
LOVELL FIELD *IFR* 5 E (332° 4.9 NM from CHA VOR)
682 H62/1-19 (2) (S-90, T-120, TT-) BL4, 6, 8 S5
F5, JP4, 5 U2 VASI: Rnwy 1 RVV: Rnwy 19
FSS: CROSSVILLE (LC AM 7-5343)
CHATTANOOGA TOWER 118.3 126.2 109.5T 278T
CHATTANOOGA GND CON 121.9
VFR ADV Ctc APP CON 25 mi out. On 125.1
CHATTANOOGA APP CON 125.1 126.2 115.8T 109.5T
ILS[1] 109.5 I-CHA Apch Brg 196°
REMARKS: [1]Glide slope unusable below 882' MSL

TENNESSEE–*Continued*

KNOXVILLE
McGHEE-TYSON *IFR* 11 S (221° 6.6 NM from TYS VOR)
989 H90/4L-22R (3) (S-75, T-90, TT-200) BL4, 6, 8 S5
F5, JP1 U2 RVR: Rnwy 4L FSS: KNOXVILLE
REMARKS: Rgt tfc mwys 4R & 22R.
KNOXVILLE TOWER 118.7 126.2 122.5R 116.4T
KNOXVILLE GND CON 121.9
RADAR SERVICES:
KNOXVILLE APP CON 123.9 122.5R 116.4T
KNOXVILLE DEP CON 120.2
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389.
18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS[1] 110.3 I-TYS Apch Brg 045° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]Glide slope unusable below 1089' MSL
VOT: 112.0

MEMPHIS METROPOLITAN *IFR* 3 S (287° 3 NM from MEM VOR)
331 H89/17-35 (4) (S-100, T-150, TT-270) BL4, 6, 8A, B
15 S5 F5, JP5 U2 VASI: Rnwy 27
RVR: Rnwy 9 FSS: MEMPHIS
REMARKS: Rnwys 3-21, & 14-32 restricted to 100,000 lbs GWT. Rnwy 9-27 restricted to 50,000 lbs single wheel. 3816 ft avbl lndg & tkots both direction rnwy 14-32.
TOWER 126.2 122.5R 118.3 115.5T 109.5T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1[1] 126.2 125.8[2] 122.5R 115.5T
110.5T 109.5T DEP CON 119.7
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi
Min Alt 731 Rnwy 35 Ceil 500 Vsby 3 mi Min Alt 831
ILS 109.5 I-MEM Apch Brg 087° 110.5 I-TSE[3] Apch Brg 354° BC unusable
VHF/DF available, contact tower
REMARKS: [1]077-271° [2]272-076° [3]Glide slope unusable below 400' MSL.
VOT: 111.0

NASHVILLE METROPOLITAN *IFR* 5 SE (312° 4.5 NM from BNA VOR)
597 H80/13-31 (3) (S-76, T-130, TT-220) BL4, 6, 8 S5
F5, JP1 U2 RVV: Rnwy 2L FSS: NASHVILLE
REMARKS: Rnwy 2R-20L-240' overrun N end, 1185' S end
BERRY TOWER 126.2 122.5R 119.1 109.9T
BERRY GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 120.6 122.5R 109.9T
DEP CON 123.7
TFC INFO Ctc APP CON on 120.6 25 mi out.
ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi
Min Alt 997
ILS 109.9 I-BNA Apch Brg 015°
VHF/DF available, contact tower
REMARKS: [1]Maint 1200 til 2 mi from end of rnwy or from rnwy 20R.
VOT: 111.0

••• TEXAS •••

ENE MUNI *IFR* 3 SE (102° 9.5 NM from ABI VOR)
778 H60/17-35 (2) (MAX-30) BL4, 6, 8 S5 F4 U2
VV: Rnwy 35 FSS: ABILENE on Fld
EMARKS: NW-SE tzwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI APP CON 124.1 mc transmitt 122.5 and receive 124.1 mc 20 mi out.
OWER 120.1 122.7R 110.3T 126.2 278T
GND CON 121.9
ADAR SERVICES: (BCN)
APP CON 126.5 124.1 121.3 134.1 110.3T 113.7T 109.2T DEP CON 125.0
TFC INFO Ctc APP CON 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out
-S 110.3 I-ABI Apch Brg 350°

ILLO AFB/MUNI *IFR* 8 E (210° 4.5 NM from AMA VOR)
607 H135/3-21 (2) (S-65, T-330, TT-470) BL6, 8 S5
5, JP1 VASI: Rnwys 3, 21 RVV: Rnwys 3, 21
FSS: AMARILLO on Fld
EMARKS: Rgt tfc rnwy 3. Rectangular tfc ptn 5100 ft MSL. Overhead tfc ptn 5400 ft MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.
OWER 126.2 122.5R 118.3 GND CON 121.9
ADAR SERVICES:
APP CON 121.1 126.2 124.8 122.5R 117.2T 110.3T
DEP CON 119.5
TFC INFO Ctc APP CON 25 NM out on 124.8
ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4007.
Rnwys 13, 31 Ceil 500 Vsby 1 1/2 mi Min Alt 4107
-S[1] 110.3 I-AMA Apch Brg 035°
EMARKS: [1]Glide slope unusable below 3907' MSL acct roughness.

IN
LLER MUNI *IFR* 2 NE (175° 5.1 NM from AUS VOR)
31 H73/12R-30L (5) (S-30, T-40, TT-) BL4, 6, 8 S5
5, JP5 U2 RVV: Rnwy 30L FSS: AUSTIN on Fld
EMARKS: Rgt rnwys 12R, 16R, 30R & 21. Rnwy 34L apch restricted by trees-glide angle 0 to 1. Rnwy 12R threshold displaced 900 ft SE. 6400 ft avbl lndg rnwy 12R. Rnwy 16R threshold displaced 600 ft S. 4406 ft avbl lndg rnwy 16R.
USTIN TOWER 118.3 126.2 122.5R 109.5T
AUSTIN GND CON 121.9
ADAR SERVICES: (BCN)
AUSTIN APP CON 124.9 125.1 122.7R 112.5T
AUSTIN DEP CON 120.8
ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 1031
-S 109.5 I-AUS Apch Brg 305°

MONT
FERSON CO *IFR* 9 SE (056° 4.6 NM from BPT VOR)
16 H57/11-29 (3) (S-65, T-91, TT-170) BL4, 6, 8A, 9 S3
4, JP1 U2 RVV: Rnwy 11 REIL: Rnwy 16
FSS: BEAUMONT on Fld
OWER 119.5 122.5R GND CON 121.9
BEAUMONT APP CON 121.3 122.5R 114.9T
LS 109.5 I-BPT Apch Brg 113°

TEXAS—Continued

BROWNSVILLE
RIO GRANDE VALLEY INTL *IFR* 4 E (242° 2.3 NM from BRO VOR) AOE
22 H57/13R-31L (6) (S-35, T-58, TT-108) BL4, 6, 7 S5
F5, JP1, 4 FSS: BROWNSVILLE on Fld
REMARKS: Rnwy 4-22 restricted to 10,000 lbs or less. Rnwy lgts on req after 2400. CTN-constr vic fld. Rnwy 31L apch restricted by brush-glide angle 0 to 1. Rnwy 31R apch restricted by trees-glide angle 0 to 1. Rnwy 35R apch restricted by trees-glide angle 1 to 1.
BROWNSVILLE TOWER 118.1 126.2 122.5R 278T
BROWNSVILLE GND CON 121.9
BROWNSVILLE APP CON 119.5 126.2 118.1 388T
ILS 110.3 I-BRO Apch Brg 173°

COLLEGE STATION
EASTERWOOD FIELD *IFR* 2 SW (098° 2.5 NM from CLL VOR)
319 H51/10-28 (3) (S-30, T-40, TT-) BL4 S3 F4
FSS: COLLEGE STATION on Fld
REMARKS: Services offered dalgt hrs only.
TOWER[1] 118.5 126.2 122.5R GND CON 121.9
REMARKS: [1]Oper 1200-0400Z daily.

CORPUS CHRISTI INTL *IFR* 5 W (191° 7.9 NM CRP VOR)
43 H56/13-31 (2) (S-76, T-102, TT-162) BL4, 6, 8 S5
F4, TP-1 JP4 U2 RVV: Rnwy 13
FSS: ALICE (LC TU 4-5712)
REMARKS: Amber flashing lgt for rgt ptn. US Customs-lndg rts arpt 8 AM to 5 PM Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba.
TOWER 126.2 122.5R 120.9 118.3 GND CON 121.9
RADAR SERVICES:
APP CON 118.3 123.7 122.5R
DEP CON 125.3
ILS 110.3 I-CRP Apch Brg 127°

DALLAS
ADDISON *IFR* 9 N (ADS VOR on fld)
637 H45/15-33 (2) BL4 S5 F5, JP1 U2
FSS: DALLAS (LC FL 7-2825)
REMARKS: Rnwy 21 apch restricted by poleline-glide angle 3 to 1.
TOWER 121.1 122.7R GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 119.8[2] 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126°

DALLAS
LOVE FIELD *IFR* 5 NW (178° 7.1 NM from ADS VOR)
485 H88/13R-31L (2) (S-100, T-150, TT-350) BL4, 6, 8A, 10, 11 S5 F5, JP1, 4 U2 VASI: Rnwy 31 REIL: Rnwy 31 RVR: Rnwy 13 FSS: DALLAS on Fld
REMARKS: Rnwy 36 apch restricted by poleline-glide angle 14 to 1. 3500 ft N end rnwy 18 avbl for S Lndgs & tkofs. US Customs lndg rgts arpt 1230 am - 230 pm Mon-Fri, 1230 am - 430 pm Sat. Req arrival notice be forward customs when filing flt plan in Canada, Mexico or Cuba. Ctn-birds vcnty arpt.
TOWER 126.2 122.5R 118.7 278T[3]

TEXAS—Continued

LOVE FIELD–(Continued)
CLRNC DEL 121.6 GND CON 121.9
RADAR SERVICES:
DALLAS APP CON 125.2 123.7[2] 122.5R 119.8[3] 111.4T 110.3T
DALLAS DEP CON 119.5
TFC INFO Ctc APP CON 25 mi out
PAR Rnwys 13 Ceil 200 Vsby 1/2 mi Min Alt 685
ASR Rnwys 13, 18, 31[1] Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I-DAL Apch Brg 127°
VHF/DF available, contact tower
REMARKS: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°-307° [3]308° - 126° [4]Glide slope unusable below 677' MSL due roughness. BC unusable for automatic apchs. [5]To be decomsnd Mar 15. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas APP CON on 123.7. Acft approaching from N and E side of lclzr crs should ctc Dallas APP CON on 119.8.
VOT: 111.0

DALLAS

RED BIRD *IFR* 6 SW (347° 1.1 NM from DCV RBN)
659 H44/13-31 (2) BL4 S5 F4, JP1 U2
FSS: DALLAS (LC FL 7-2825)
TOWER[3] 120.3 122.6R 248T GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126° [3]Oper 120-0400Z.

EL PASO INTL *IFR* 4 NE (257° 3.8 NM from ELP VOR) AOE
3956 H120/4-22 (3) (S-95, T-156, TT-280) BL4, 6, 8 S5
F5, JP1, 4 U2 RVV: Rnwy 22 FSS: EL PASO on Fld
REMARKS: Rnwy 4 threshold displaced 1000 ft NE. 11,000 avbl lndg rnwy 4. Rnwy 17 threshold displaced 395 ft S. 6606 ft avbl lndg rnwy 17.
TOWER 118.3 126.2 122.5R 224T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
DEP CON 119.1
ASR Rnwys 22, 26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I-ELP Apch Brg 218°
REMARKS: [1]BC not avbl; overlies Mexico
VOT: 111-0

FORT WORTH

GREATER SOUTHWEST INTL *IFR* 16 NE (GSW VOR on fld)
568 H90/17-35 (2) (S-120, T-180, TT-400) BL4, 6, 8 S3
F5, JP5 RVR: Rnwy 13 FSS: FORT WORTH (LC MA 4-8444)
REMARKS: 3100' rnwy 17 clsd-constrn. 5900' avbl lndg length.
SOUTHWEST TOWER 118.9 126.2 122.7R 317T
SOUTHWEST GND CON 121.8
RADAR SERVICES:
FORTH WORTH APP CON 118.1 126.2 122.7R 119.6 109.5T
FORT WORTH DEP CON 123.9 122.7R
TFC INFO Ctc APP CON 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I-GSW Apch Brg 129°
VHF/DF available, contact tower
REMARKS: VOT: 111.8

TEXAS—Continued

FORT WORTH

MEACHAM FIELD *IFR* 5 N (177° 2.1 NM from FTW RBN)
692 H52/17-35 (3) (S-60, T-80, TT-) BL4, 6, 7 S5
F5, JP5 U2 FSS: FORT WORTH on
REMARKS: Rnwy 31 apch restricted by poleline-glide angle to 1.
TOWER[1] 126.2 122.7R 118.3 GND CON 121.9
RADAR SERVICES:
FORT WORTH APP CON 119.6 126.2 122.7R 118.3 109.5T
FORT WORTH DEP CON 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174°
REMARKS: [1]Oper 1300-0500Z.
VOT: 108.2

GREENVILLE

MAJORS FIELD 4 SE (GVT VOR on fld)
544 H80/17-35 (3) (S-80, T-140, TT-220) BL4 S5 F4
FSS: DAL
REMARKS: Ngt lndg not advisible. Rnwy lgts on first 3500' rnwy 35 only, remainder lgtd smudge dots prior req. S 3500' rnwy 17 lgtd.
TOWER[1] 121.3 122.5R
REMARKS: [1]Oper 1330-2200Z excp Sat & Sun.

HOUSTON WILLIAM P HOBBY *IFR* 8 SE (HOU VOR on fld)
50 (H76/3-21 (3) (S-100, T-150, TT-270) BL4, 6, 8A S5
F5, JP4 U2 RVR: Rnwy 3 FSS: HOUSTON
REMARKS: US Customs lndg rgts arpt 0800-1700 Mon-Sat. Arrival notice be forwarded to US Custom when filing flt in Canada, Mexico or Cuba.
TOWER 118.7 126.2 122.5R 119.1 3023.5R 278T[1]
GND CON 121.9
RADAR SERVICES:
APP CON 118.1[1] 126.2 124.5 122.5R 119.1[2] 119.5
DEP CON 123.7 126.2
TFC INFO Ctc APP CON on 123.7 119.1 or 118.1 25 mi out.
ASR Rnwys 3, 12, 30 Ceil 400 Vsby 1 mi Min Alt 450 Rnwys 17, 35 Ceil 500 Vsby 1 mi Min Alt 550. Rnwy 21 Ceil 600 Vsby 1 mi Min Alt 650.
ILS 109.9 I-HOU Apch Brg 036°
VHF/DF available, contact tower.
REMARKS: [1]218°-008° [2]009°-217° [3]To be decomsnd.
VOT: 111.0

JOHNSON CITY MUNI *IFR* 10 W (346° 2 NM from JCY RBN)
1515 H63/17-35 (1) L4, 11 F4 U1 REIL: Rnwy 35
FSS: AUS
TOWER[1] 126.2
RADAR SERVICES:
AUSTIN APP CON 124.9 125.1 122.7R
AUSTIN DEP CON 120.8
REMARKS: [1]Weather and altimeter setting avbl when twr not oper.

LONGVIEW

GREGG COUNTY MUNI *IFR* 6 SE (125° 2.3 NM from GGG VOR)
365 H61/17-35 (3) (S-75, T-100, TT-) BL4, 6, 8 S5
JP1 U2 FSS: GREGG COUNTY
TOWER 119.7 122.5R GND CON
LONGVIEW APP CON 119.7 122.5R
ILS 109.5 I-GGG Apch Brg 126°

TEXAS—Continued

JCK MUNI *IFR* 4 NE (111° 4.6 NM from LBB VOR)
69 H85 17R-35L (4) (S-30, T-40, TT) BL5, 6, 8
F4, JP1 U2 FSS: LUBBOCK on Fld
EMARKS: Rnwy 3-21 restricted to acft in excess of 60,000 bs. Rnwy 12-30 restricted to 80,000 lbs gwt tkof wt, except n emerg. Rnwy 35L threshold displaced 900 ft N. 7602 ft avbl lndg rnwy 35L. Rnwy 21 threshold displaced 300 ft SW. 3300 ft avbl lndg rnwy 21.
OWER 119.9 126.2 122.5R
GND CON 121.9 APP CON 118.1 126.2 122.5R
110.8T 391T DEP CON 118.1
S 109.5 I-LBB Apch Brg 169°

ND AIR TERMINAL *IFR* 8 SW (181° 3.4 NM from
AF VOR)
70 H83/10-28 (4) (S-100, T-128, TT-280) BL4, 6, 8 S5
, JP2 U2 RVV: Rnwy 10 FSS: MIDLAND on Fld
EMARKS: Rnwy 34L threshold displaced 627 ft N 6902 ft avbl lndg rnwy 34L. Rnwy 28 threshold displaced 698 ft NW. 7602 ft avbl lndg rnwy 28. Rnwy 4 threshold displaced 1303 ft NE. 5197 ft avbl lndg rnwy 4.
OWER 118.7 126.2 122.5R GND CON 121.9
APP CON 121.1 122.5R 114.8T 110.3T
S 110.3 I-MAF Apch Brg 103°
HF DF available, contact tower

VIEW
E COUNTY *IFR* 1 S (023° 6 NM from PVW VOR)
72 H52 4-22 (2) (S-30, T-40, TT) BL4 S5 F4 U2
FSS: LUBBOCK (LC CA 3-2148)
EMARKS: Rnwy 22 apch restricted by hangar-glide angle 2 to 1.
OWER[1] 118.9 122.5R 233T GND CON 121.7
EMARKS: [1]Oper 1200-0400Z.

NGELO
HIS FIELD *IFR* 7 SW (234° 1.8 NM from SJT VOR)
15 H59/3-21 (3) (S-35, T-56, TT) BL4, 8 S5 F4
RVV: Rnwy 3 FSS: SAN ANGELO on Fld
EMARKS: Rnwy 27 apch restricted by trees-glide angle 0 to 1. Rnwy 9-27 clsd to acft over 25,000 lbs gwt.
OWER 118.3 122.5R GND CON 121.9
SAN ANGELO APP CON 119.2 118.3 122.5R 115.1T
109.7T
S 109.7 I-SJT Apch Brg 032°

NTONIO INTL *IFR* 7 N (175° 6.3 NM from SAT VOR)
8 H85/12-30 (3) (S-150, T-225, TT-300) BL4, 6, 8A S5
, JP1 U2 RVV: Rnwys 3, 12 FSS: SAN ANTONIO on Fld
MARKS: US customs lndg rts arpt 10 am-8 pm Mon-Sat req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324' NW. Usable lndg length 5128'. Rnwy 17 usable lndg length 5452'.
WER 118.9 122.5R GND CON 121.9
DAR SERVICES:
APP CON 120.3 134.1 126.5 126.2R 122.5R 110.9T
109.7T DEP CON 123.9
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys[1] 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi
Min Alt 1208
S 110.9 I-ANT Apch Brg 123° BC unusable 109.7
I-SAT Apch Brg 032° VHF DF available, contact tower.
EMARKS: [1]Rnwy 17, 35 restricted to 2 eng acft and smaller
VOT: 110.4

TEXAS—Continued

SAN ANTONIO
STINSON FIELD *IFR* 5 SE (337° 4.5 NM from SSF VOR)
567 H49 9-27 (4) (S-40, T-75, TT-) BL4 S5 F4
FSS: SAN ANTONIO (LC TA 6-6323)
REMARKS: All rnwy apchs restricted by trees-glide angle 1 to 1. Rgt tfc rnwys 9, 14, 17, 22. Tfc 800 ft abo terrain 1367' MSL.
TOWER [1]119.5 122.7R GND CON 121.7
RADAR SERVICES:
SAN ANTONIO APP CON 120.3 134.1 126.5 126.2R
122.5R SAN ANTONIO DEP CON 123.9
REMARKS: [1]Oper 1300-0500Z.

TYLER
POUNDS FIELD *IFR* 4 W (127° 4.6 NM from TY LOM)
544 H52/13-31 (3) (S-30, T-40, TT) BL4, 6, 8 S5 F4
U2 FSS: TYLER on Fld
REMARKS: Acft over 50,000 lbs restricted rnwy 4-22. Rnwy 17 threshold displaced 250 ft S. 4803 ft avbl lndg rnwy 17.
TOWER 120.1 122.5R GND CON 121.9
TYLER APP CON 124.1 122.5R 109.9T 320T
ILS 109.9 I-TYR Apch Brg 127°

WACO MUNI *IFR* 5 NW (141° 3 NM from ACT VOR)
515 H57 18-36 (3) (S-30, T-40, TT-) BL4, 6, 8 S5
F5 U2 RVV: Rnwy 18 FSS: WACO on Fld
REMARKS: Rnwy 18-36 clsd until ab° Mar 65.
TOWER 119.9 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.3 134.1 125.3 122.7R 115.3T
DEP CON 125.7
ILS[1] 109.7 I-ACT Apch Brg 185°
REMARKS: [1]Localizer and glide slope shut down til Mar.

WICHITA FALLS
SHEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5 N (082° 5.1 NM from SPS VOR)
1015 H131/15-33 (2) (S-65, T-300, TT-530) BL4, 6, 8 S5
F5, JP1, 4, 5 U2 VASI: Rnwys 15 & 33 RVV: Rnwys 15, 33 FSS: WICHITA FALLS on Fld
REMARKS: Overhead tfc ptn 2700 ft rectangular tfc ptn 2200 ft MSL. Rgt tfc rnwys 17 & 33.
TOWER 119.1 126.2 122.5R 278T
GND CON 121.9 WICHITA FALLS APP CON 118.2
122.5R 109.7T WICHITA FALLS DEP CON 118.2
ILS 109.7 I-SPS Apch Brg 328°

*** UTAH ***

OGDEN MUNI *IFR* 3 SW (098° 3.7 NM from OGD VOR)
4455 H73 3-21 (3) (S-100, T-160, TT-280) BL4 S5 F5
JP1 U2 REIL Rnwy 3
FSS: SALT LAKE CITY (LC EX 4-8712)
REMARKS: Rgt tfc rnwy 16, 21 & 35. Arrival acft ctc Hill AFB apch ctl.
TOWER [1]118.7 122.5R GND CON 121.7
RADAR SERVICES:
HILL APP CON 120.2 132.9 124.1 122.5R 121.1
HILL DEP CON 121.1 TFC INFO Ctc APP CON aprx 20 mi out. ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
REMARKS: [1]Oper 1300-0500Z.

UTAH—Continued

SALT LAKE CITY MUNI NO 1 *IFR* 4 W (149° 3.6 NM from SLC VOR)
4226 H100/16R-34L (3) (S-100, T-160, TT-260) BL4, 6, 7, 8 S5 F5, JP1 U2 VASI: Rnwy 16R RVR: Rnwy 34L
FSS: SALT LAKE CITY on Fld
REMARKS: Rnwy 7-25 & 14-32 restricted to acft in excess of 35,000 lbs.
SALT LAKE TOWER 118.3 126.2 122.7R
SALT LAKE GND CON 121.9
RADAR SERVICES: (BCN)
SALT LAKE APP CON 120.9 122.7R 116.8T 109.5T
SALT LAKE DEP CON 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I-SLC Apch Brg 338°
VHF/DF[1] available, contact tower.
REMARKS: [1]VHF/DF unusable from 360 to 100°.
VOT: 109.0

*** VERMONT ***

BURLINGTON MUNI *IFR* 2 E (033° 4.3 NM from BTV VOR) AOE
335 H78/15-33 (2) (S-62, T-110, TT-195) BL6, 8A S5 F5, JP1, 4 U2 RVV: Rnwy 15
FSS: MONTPELIER (LC 878-3393)
TOWER 126.2 122.5R 118.3 110.3T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 121.1 133.5 126.2 122.5R 110.3T
DEP CON 119.2
ILS 110.3 I-BTV Apch Brg 146° BC Unusable
VHF/DF available, contact tower
VOT: 109.0

*** VIRGINIA ***

LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6SW (025° 4 NM from LYH VOR)
942 H58/3-21 (3) (S-60, T-80, TT-120) BL6, 8 S5 F4 U2
FSS: ROANOKE (LC 846-3942)
LYNCHBURG TOWER 120.7 122.5R
LYNCHBURG GND CON 121.9
LYNCHBURG APP CON 118.0 122.5R 120.7
ILS[1] 110.1 I-LYH Apch Brg 032°
REMARKS: [1]BC unusable below 3500′ MSL beyond 20 nmi.

NEWPORT NEWS
PATRICK HENRY *IFR* 9 NW (065° 2.7 NM from PH LOM)
41 H56/6-24 (2) (S-90, T-130, TT-225) BL4, 6, 8 S5 F5, JP1 U2
FSS: NEWPORT NEWS on Fld
REMARKS: Fee in lieu of fuel for acft over 12,500 lbs.
TOWER 118.7 122.7R 110.1T 317T
GND CON 121.9
RADAR SERVICES: (BCN)
NORFOLK APP CON 125.7
NORFOLK DEP CON 118.9
ILS 110.1 I-PHF Apch Brg 065°

VIRGINIA—Continued

NORFOLK MUNI *IFR* 5 NE (ORF VOR on fld)
26 H50/4-22 (3) (S-70, T-100, TT-180) BL4, 6, 8 S5 F4, JP1 U2 RVV: Rnwy 4 FSS: NEWPORT NEWS
REMARKS: Rnwy 13 threshold displaced 219′.
TOWER 121.1 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.8 DEP CON 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1 mi Min Alt 526
ILS[1] 109.1 I-ORF Apch Brg 045°
VHF/DF available, contact tower.
REMARKS: [1]ILS shut down indefinitely due to constr.

RICHMOND
BYRD FIELD *IFR* 6 E (RIC VOR on fld)
167 H80/15-33 (3) (S-100, T-135, TT-240) BL4, 6, 8 S5 F5, JP1, 4 U2 RVV: Rnwy 6 FSS: RICHMOND
REMARKS: Fee exec and skeds. Rgt tfc patn.
RICHMOND TOWER 119.5 126.2 122.5R 110.3T
CLRNC DEL 121.9 RICHMOND GND CON
RADAR SERVICES: (BCN)
RICHMOND APP CON 119.0 126.2 122.5R 119.6
RICHMOND DEP CON 118.2
TFC INFO Ctc twr 35 mi out.
ASR Rnwys 2, 6, 15, 20, 24, 33 Ceil 400 Vsby 1 mi Alt 567
ILS 110.3 I-RIC Apch Brg 063°
VOT: 110.8

ROANOKE MUNI (WOODRUM FLD) *IFR* 3 NW (ODR VOR on fld)
1174 H54/5-23 (3) (S-60, T-85, TT-140) BL4, 11 S5 F5, JP1 REIL: Rnwy 23 FSS: ROANOKE
REMARKS: Rnwy 33 threshold displaced 125′.
TOWER 118.3 122.5R 120.2
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.9 122.5R 120.2 109.0T
DEP CON 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374.

*** WASHINGTON ***

EVERETT
PAINE FIELD *IFR* 6 SW (PAE VOR on fld)
603 H90/16-35 (2) (S-50, T-90, TT-220) BL6, 8 S5 F4, JP4 FSS: SEATTLE
REMARKS: Rnwy 11 threshold displaced 1600′.
TOWER 121.3 126.2 122.5R 3023.5R 278T
RADAR SERVICES:
SEATTLE CENTER APP CON 121.2
ILS 109.3 I-PAE Apch Brg 155°

RENTON MUNI Adjt NW (031° 4.8 NM from SEA VOR)
29 H53/15-33 (1) (S-100, T-190, TT-300) BL4 S5 F4, JP4 U2 FSS: SEATTLE (LC CH SEA)
REMARKS: Rnwy 33 threshold displaced 1000′. Rgt tfc Rnwy 33.
TOWER[1] 118.9 122.7R
GND CON 121.9 SEATTLE DEP CON 119.2
REMARKS: [1]Oper 1500-0700Z.

WASHINGTON—Continued

'LE
ING FIELD *IFR* 4 S (290° 2.1 NM from SJ RNG) AOE
H100 13-31 (2) (S-100, T-160, TT-290) BL6, 11, 12 S5
, JP1 U2 RVV: Rnwy 13 REIL: Rnwy 31
FSS: SEATTLE (DL)
EMARKS: Rnwy 13-30 lmtd to single wheel 125,000 lbs.
)WER 126.2 122.5R 118.3 248T
GND CON 121.9
DAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
S 110.9 I-BFI Apch Brg 128° BC unusable
EMARKS: [1]Glide slope unusable past 6° E of front crs. Lclzr unusable beyond 13 nmi 27° W of cntrline below procedure turn alt. Flag indications may be experienced beyond 12 nmi of LOM below 3000' beyond 15° E of cntrline.

LE-TACOMA INTL *IFR* 10 S (SEA VOR on fld)
8 H119/16-34 (2) S-45, T-145, TT-300) BL4, 6, 8A S5
, JP1, 4 RVV: Rnwy 16 RVR: Rnwy 34
FSS: SEATTLE on Fld
)WER 119.9 126.2 122.6R 281T
CLRNC DEL 118.0 GND CON 121.7
DAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T 281T
SEATTLE DEP CON 119.2
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 628
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
S 110.3 I-SEA[1] Apch Brg 338° BC unusable 111.5
I-SZI [1]Apch Brg 158°
MF DF available, contact tower.
EMARKS: [1]Automatic apchs not authorized from MM to touchdown. [2]Lclzr unusable beyond 20 nmi below 2800'. Large acft crossing lclzr antenna and rnwy 34 may cause momentary false crs indications and flag activity within 90° each side front crs. Both systems not operd simultaneously.

NE INTL *IFR* 5 S (027° 4.4 NM from GEG VOR)
72 H90/3-21 (2) (S-100, T-200, TT-350) BL5, 6, 8A
F4, JP1 U2 RVV: Rnwy 3 RVR: Rnwy 21
FSS: SPOKANE (LC KE S-2906)
EMARKS: Rgt tfc rnwy 3 and 7.
)WER 118.3 126.2 122.5R
GND CON 121.9
DAR SERVICES: (BCN)
APP CON 134.1 126.2x[1] 124.7 123.7 122.5R 119.0
109.9T
DEP CON 124.3
TFC INFO Ctc Spokane APP CON aprx 20 mi out.
S 109.9 I-GEG Apch Brg 205°
EMARKS: [1]To be decomsnd
)T: 109.6

AMUNI *IFR* 2 S (244° 3.6 NM from YKM VOR)
82 H55/9-27 (3) (S-50, T-60, TT-100) BL4, 6, 8 S5
, JP1, 4 U2 FSS: YAKIMA on Fld
)WER 119.1 122.5R 3023.5R 278T
GND CON 121.9
APP CON 120.2 122.5R 119.1 3023.5R
S 110.1 I-YKM Apch Brg 269°

••• WEST VIRGINIA •••

.ESTON
AWHA *IFR* 2 NE (084° 8.1 NM from CRW VOR)
2 H56/5-23 (2) (S-150, T-200, TT-400) BL4, 6, 8, 11 S5
5, JP5 U2 RVV: Rnwy 23 REIL: Rnwy 5
FSS: CHARLESTON on Fld
HARLESTON TOWER 120.3 126.2

WEST VIRGINIA—Continued

KANAWAHA—(Continued)
CHARLESTON GND CON 121.9
RADAR SERVICES:
CHARLESTON APP CON 118.8 126.2 110.3T
CHARLESTON DEP CON 124.1
TFC INFO All landing acft ctc APP CON on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I-CRW Apch Brg 230° BC unusable
VHF DF available contact Tower.
VOT: 111.0

HUNTINGTON
TRI-STATE (WALKER LONG FLD) *IFR* 6 SW (114° 4.6 NM from HT LOM)
828 H53/11-29 (1) (S-50, T-75, TT-135) BL6, 8 S5 F4, JP1
U2 FSS: HUNTINGTON on Fld
HUNTINGTON TOWER 120.9 122.5R
HUNTINGTON GND CON 121.9
HUNTINGTON APP CON 118.5 122.5R 109.9T
ILS 109.9 I-HTS Apch Brg 114°

MARTINSBURG MUNI *IFR* 4 S (289° 5.9 NM from MRB VOR)
556 H70 8-26 (2) (S-90, T-120, TT-) BL4, 6, 8 S5 F4
FSS: MARTINSBURG on Fld
TOWER [1]120.5 126.2 122.5R GND CON 121.9
RADAR SERVICES:
DULLES APP CON 125.0 126.1
DULLES DEP CON 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¾ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 Mi Min Alt 956
REMARKS: [1]Oper 1330-2130Z Tues, Thur, Sat and Sun; 1330-0300Z Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 1330-2130Z Tues thru Sat only.

WHEELING-OHIO COUNTY *IFR* 7 N (220° 5.8 NM from HLG VOR)
1195 H50 3-21 (3) (S-120, T-170, TT-290) BL4, 6, 8 F4
VASI: Rnwy 21 REIL: Rnwy 21 FSS: WHEELING on Fld
WHEELING TOWER 118.1 122.5R 109.7T
WHEELING GND CON 121.9
ILS[1] 109.7 I-HLG Apch Brg 030°
REMARKS: [1]Glide slope unusable from MM to touchdown due to roughness.

••• WISCONSIN •••

GREEN BAY
AUSTIN STRAUBEL *IFR* 7 SW (145° 4.6 from GRB VOR)
694 H52 6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5 F4 U2
RVV: Rnwy 6 FSS: GREEN BAY on Fld
REMARKS: US Customs lndg rts arpt.
GREEN BAY TOWER 118.7 122.5R 109.5T 278T
GREEN BAY GND CON 121.9
GREEN BAY APP CON 119.4
ILS[1] 109.5 I-GRB Apch Brg 059°
REMARKS: [1]Glide slope unusable below 800' acct crs roughness.

MADISON
TRUAX FIELD *IFR* 5 NE (TAX VOR on fld)
859 H76/18-36 (4) (S-60, T-80, TT-) BL4, 6, 8, 9 S5
F4, JP4, 5 U2 RVV: Rnwys 18, 36
FSS: MADISON on Fld
REMARKS: Rnwy 8 apch restricted by poleline - glide angle 4 to 1. Rnwy 18 apch restricted by poleline- glide angle 13 to 1.

WISCONSIN—Continued

TRUAX FIELD—(Continued)
MADISON TOWER 119.3 126.2 115.5T 3023.5R 278T
MADISON GND CON 121.9
MADISON APP CON 120.1 126.2 109.9T 3023.5R 278T
MADISON DEP CON 118.8
ILS 109.9 I MSN Apch Brg 359° BC unusable
VHF/DF available contact Tower.

MILWAUKEE

GENERAL MITCHELL FLD *IFR* 5 S (006° 3.6 NM from MK LOM)
702 H99/1-19 (4) (S-200, T-200, TT-400) BL4, 6, 8A S5
F5, JP1 U2 RVR: Rnwy 1 FSS: MILWAUKEE on Fld
REMARKS: Rgt tfc rnwy 1-7. Rnwy 19 threshold displaced 1600 ft S. 8316 avbl lndg rnwy 19. Rnwy 7L-25R clsd to all Jet acft. CTN - const vic rnwy 7R.
MILWAUKEE TOWER 119.1 126.2 124.8 122.7R 278T
CLRNC DEL 120.0 MILWAUKEE GND CON 121.9
RADAR SERVICES: (BCN)
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T
110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6
TFC INFO Call APP CON 15 mi out.
ASR Rnwys [1], 7R Ceil 400 Vsby 1 mi Min Alt 1102.
Rnwys 13, 19 Ceil 500 Vsby 1 mi Min Alt 1202.
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1302
ILS 110.3 I-MKE Apch Brg 006°
VHF/DF available, contact Tower.
REMARKS: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr.
VOT: 109.0

MILWAUKEE

TIMMERMAN FIELD *IFR* 5 NW (MWC VOR on fld)
745 H41/15L-33R (2) (Max-15) BL4 S5 F4
FSS: MILWAUKEE (DL)
REMARKS: P-line E, NE.
TOWER [1]120.5 122.5R 345T GND CON 121.7
RADAR SERVICES:
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T

WISCONSIN—Continued

TIMMERMAN FIELD—(Continued)
110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6
REMARKS: [1]Oper 1200-0400Z.

OSHKOSH

WINNEBAGO CO *IFR* 1 SW (OSH VOR on fld)
795 H58/9-27 (4) (S-75, T-100, TT -) BL6 S5 F4
FSS: GREEN BAY
REMARKS: Rnwy 27 apch restricted by poleline - glide angle 1 to 1. Rnwy 22 apch restricted by poleline-glide angle 1 to 1. Rnwy 18 apch restricted by poleline - glide angle 1 to 1. Rnwy 27 threshold displaced 875 ft W. 5225 ft avbl lndg rnwy 27. Rnwy 36 threshold displaced 890 ft N. 4250 ft avbl lndg rnwy 36. No snow removal rnwys 4-22 and 13-31.
OSHKOSH TOWER [1]120.7 122.5R 395T
OSHKOSH GND CON 121.9 APP CON Radar vectors to final apch crs from Chicago ARTCC on 124.4
ILS 110.5 I-OSH Apch Brg 088° BC unusable
REMARKS: [1]Oper 1300-0500Z

WYOMING

CASPER AIR TERMINAL *IFR* 7 NW (201° 13.2 NM from CPR VOR)
5348 H90/16-34 (4) (S-80, T-146, TT-288) BL4, 6, 8 S5
F4, JP4 U2 RVV: Rnwy 7 FSS: CASPER
REMARKS: 1000 ft overruns on ea end rnwy 3-21 not lgtd
TOWER 126.2 122.5R 118.3 GND CON
APP CON 120.7 126.2 122.5R 118.3 116.2T
ILS[1] 110.3 I-CPR Apch Brg 074°
REMARKS: [1]Glide slope unusable beyond 1 nmi W of LOM at 7000 ft MSL due to moderate to severe roughness.

CHEYENNE MUNI *IFR* 1 N (195° 3.7 NM from CYS VOR
6156 H93/8-26 (3) (S-90, T-121, TT-270) BL4, 6, 8 S5
F5, JP4 RVV: Rnwy 26 FSS: CHEYENNE
REMARKS: Avoid hospital E. Rnwy 8 threshold displaced 4 ft E. 8897 ft avbl lndg rnwy 8.
TOWER 126.2 122.5R 118.7 113.1T 201T
GND CON 121.9
VFR ADV Ctc APP CON on 119.9 aprx 25 mi out.
APP CON 126.2 122.5R 119.9 118.7 113.1T 332T
ILS[1] 109.9 I-CYS Apch Brg 261°
REMARKS: [1]Lclzr SW quad unusable 11,000 ft MSL and subj to momentary crosspointer excursions.

FOR DETAILED INFORMATION SEE SECTION II DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

Center SECTOR Discrete Frequencies — AREA Discrete Frequency

ALBUQUERQUE

VHF (Low)				VHF (High)				
3.6	120.1	123.7	124.5	132.9	133.0	132.65	133.05	119.7
4.6	124.7	124.9	125.2	133.8	133.45	133.55	133.65	
5.4	125.5	125.9	126.4	133.85	134.25	134.35	134.45	
5.9	127.2	132.2	132.8	134.75	135.05	135.3	135.7	
4.5				135.8	135.15			

ATLANTA

VHF (Low)				VHF (High)				
3.9	120.0	120.3	120.8	132.75	132.75	132.85	132.9	125.9
3.9	121.2	123.8	124.1	133.1	133.35	133.7	134.55	
4.4	125.2	125.5	126.4	134.6	135.15	135.75		
5.6	127.15	127.55	127.8					
7.95	128.3	128.6	128.65					

BOSTON

VHF (Low)				VHF (High)				
3.0	121.0	124.0	124.2	127.8	128.1	132.5	132.65	125.9
4.6	125.8	127.0	127.1	132.9	134.3	134.45	134.85	
7.3	127.6	127.8	127.9	134.95				
8.1	128.2	132.4	132.56					
5.7								

CHICAGO

VHF (Low)				VHF (High)				
3.2	120.4	120.6	120.8	127.95	132.15	132.5	132.75	124.1
4.4	124.0	124.4	124.5	133.35	133.5	133.95	134.85	
4.9	125.1	125.2	126.6	135.35	135.55			
6.8	126.9	127.0	127.1					
7.5	127.6	127.7	128.05					
8.2	128.4	128.5	126.65					
8.7	132.3	133.9						

CLEVELAND

VHF (Low)				VHF (High)				
3.8	118.9	119.6	119.8	132.25	132.45	133.25	133.3	126.5
0.2	120.3	120.4	120.6	133.95	134.25	134.65		
3.8	121.2	121.4	123.9					
4.2	124.3	124.4	124.5					
4.6	125.0	125.1	125.2					
5.3	125.6	125.7	126.1					
6.4	126.8	127.15	127.5					
7.45	127.65	127.9	128.35					
8.45	128.6	134.3						

Center SECTOR Discrete Frequencies — AREA Discrete Frequency

DENVER

VHF (Low)				VHF (High)				
119.8	124.1	124.0	125.6	127.3	127.55	128.2	132.1	126.5
125.8	126.0	127.2	127.8	132.15	132.6	132.85	133.15	
132.3	132.5	133.7	134.0	133.3	133.75	133.85	134.65	
133.4	134.6			135.5	135.15	135.65		

FORT WORTH

VHF (Low)				VHF (High)				
119.4	120.9	124.4	124.6	132.2	132.35	132.45	132.55	120.9
124.7	124.8	125.0	125.5	132.75	133.5	133.25	133.35	
125.6	126.0	126.6	127.3	133.95	135.4	135.8		
127.7	128.0	128.1	128.3					
128.45	133.1	133.3	133.9					
135.0	135.6							

GREAT FALLS

VHF (Low)				VHF (High)				
120.4	124.1	125.1	125.5	132.25	132.65	132.95	133.4	123.9
126.5	127.1	127.3	127.8	133.55	134.3	134.55	135.25	
128.0	128.5							

INDIANAPOLIS

VHF (Low)				VHF (High)				
118.2	123.6	124.2	124.4	128.25	132.7	133.05	133.45	124.9
124.8	126.0	127.0	127.1	133.75	134.35	134.75	134.9	
127.3	127.4	128.3	128.4	134.95				
128.55	128.8	132.6	135.1					
135.7	135.8							

JACKSONVILLE

VHF (Low)				VHF (High)				
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65	124.7
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.85	
127.2	128.1	128.5	132.3	135.05	135.25	135.55	135.65	
132.5	132.8	133.4	133.5					
134.3	134.7							

Center SECTOR Discrete Frequencies | Center AREA Discrete Frequency

KANSAS CITY

VHF (Low)				VHF (High)				
118.8	128.9	119.0	119.2	132.25	132.4	132.65	132.9	123.9
119.4	119.6	119.7	120.2	132.95	133.1	133.15	133.35	
121.0	123.6	123.8	124.2	133.45	133.8	134.3	134.7	
125.2	125.3	125.4	125.9	134.9	135.0	135.4	135.25	
126.4	127.2	127.8	128.0	135.65				
128.1	132.2	132.8						

LOS ANGELES

VHF (Low)				VHF (High)				
119.0	119.8	124.5	125.8	127.9	128.3	128.6	132.15	123.9
125.0	126.0	126.4	126.6	133.05	133.25	133.55	134.55	
127.3	127.4	128.2	128.4	134.75	134.95	135.45		
132.3	132.5	132.6	133.4					
133.8	134.2	134.4	134.6					
135.05								

MEMPHIS

VHF (Low)				VHF (High)			
118.6	119.3	120.1	123.6	132.35	133.0	133.55	133.6
124.4	124.6	125.4	127.1	134.25	134.45	134.9	135.3
127.2	127.25	127.3	127.4	135.5	135.7		
127.75	128.0	128.05	128.7				
132.1	132.3	132.5	135.45				

MIAMI

VHF (Low)				VHF (High)				
118.9	120.0	120.3	123.6	125.7	127.7	132.7	132.95	120.5
124.1	124.4	124.5	124.7	133.65	133.8	134.35	134.5	
125.4	125.6	125.8	126.0	134.95	135.15	135.5		
126.4	127.0	127.3	128.25					

MINNEAPOLIS

VHF (Low)				VHF (High)				
120.3	120.9	125.5	125.9	132.15	133.4	133.55	133.65	118.9
126.0	126.1	127.2	127.3	133.85	134.25	134.45	134.8	
127.4	127.5	127.8	127.9	134.55	135.45	135.7		
128.2	128.4	132.1	132.6					
134.8								

NEW ORLEANS

VHF (Low)				VHF (High)				
118.9	120.7	123.6	124.0	132.6	132.7	133.65	133.85	125.1
124.1	124.6	125.1	125.8	134.75	135.2			
126.0	126.6	126.8	126.9					
128.1	128.4							

Center SECTOR Discrete Frequencies | Center AREA Discrete Frequency

NEW YORK

VHF (Low)				VHF (High)				
119.6	119.8	120.0	120.2	132.1	132.3	132.95	133.8	126.3
123.6	124.1	124.2	124.8	133.9	134.8	135.45	135.55	
125.1	125.3	125.4	125.5	135.75				
125.6	126.0	126.4	126.6					
126.8	127.95	128.2	128.3					
128.5	128.65	132.6	134.6					
135.1	135.6	135.65	137.65					

OAKLAND

VHF (Low)				VHF (High)				
118.4	120.2	120.4	120.6	124.95	128.15	132.35	132.65	123.7
121.2	123.8	123.9	124.0	132.8	132.95	133.3	133.7	
124.2	124.6	125.5	125.9	133.75	134.35	134.7	134.85	
126.5	126.8	127.2	127.5					
127.7	127.8	128.7						

SALT LAKE CITY

VHF (Low)				VHF (High)				
123.6	124.0	124.4	124.5	132.4	132.5	132.85	133.55	
126.6	127.4	128.4	133.1	132.75	133.25	133.45	134.15	
				134.8	134.85	135.7		

SAN ANTONIO

VHF (Low)				VHF (High)			
118.2	119.7	121.0	121.2	132.15	132.8	133.75	134.3
124.2	125.4	125.8	125.9	134.35	134.95		
126.4	126.9	126.95	127.2				
127.4	127.8	128.0	128.2				
128.3	128.4	132.9	133.05				
134.7	134.8						

SEATTLE

VHF (Low)				VHF (High)				
120.3	120.9	121.2	124.1	133.0	133.5	133.9	134.65	127.7
125.1	125.3	125.6	125.8	134.75				
126.0	128.1	132.1	132.6					
134.95								

WASHINGTON

VHF (Low)				VHF (High)				
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.1	
121.0	123.9	124.0	124.1	133.15	133.55	133.65	133.85	
124.7	124.9	125.2	125.8	134.4	135.2			
126.4	127.1	127.6	128.15					
128.6	132.15	132.4	133.25					
135.0	135.4							

Pilot to Forecaster Weather Briefing Service available on 122.6 mc

FSS FREQUENCIES AND TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Stations providing Airport Advisory Service (AAS) are indicated by the letters AAS following the FSS name. 122.2T is the standard FSS transmitting frequency for this service.

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

•–indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

†–indicates a restricted number, use for aviation weather information only.

%–call FSS for "one call" FSS WBAS briefing service.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name.

FSS's transmit on navigational aid frequencies which are listed first, followed by the identification of the NAVAID.

Standard Flight Service Station civil communications frequencies are: 126.7 122.2T 122.1R 135.9 and emergency 121.5. These frequencies are available at all stations listed, unless annotated by a diamond (◆), identifying those stations where complete standard FSS communications frequencies are not available. This diamond is then supplemented with those standard FSS communications frequencies not available, listed by a cross-out, i.e., ~~135.9~~. Additional frequencies, e.g., 3023.5R, are listed when available. Frequencies transmit and receive unless annotated by the addition of: R – Receive Only, T – Transmit Only, X – On Request.

ALABAMA

Location and Frequencies		Code Area	Telephone
Anniston (AAS) 108.8 329 (ANB)	FSS	(205)	831-2303
Birmingham 114.4 224 (BHM)	FSS	(205)	595-6151
	WB	(205)	%
	WB	(205)	595-2101•
Dothan 111.6 (DHN)	FSS	(205)	794-6683
Huntsville 109.0 (HSV)	FSS	(205)	536-1254
	WB	(205)	881-2761†
Mobile (Bates) 115.3 248 (MOB)	FSS	(205)	342-1177
	WB	(205)	342-2762†
Montgomery (Dannelly) 112.1 (MGM)	FSS	(205)	269-4368
	WB	(205)	263-0621†
Muscle Shoals (AAS) 116.5 (MSL)	FSS	(205)	383-6541
	FSS	(205)	383-6430
Tuscaloosa (AAS) 117.8 (TCL)	FSS	(205)	758-3628

ARIZONA

Location and Frequencies		Code Area	Telephone
Douglas (AAS) (Bisby-Douglas)			
Douglas (AAS) (Bisby-Douglas) 110.0 (DUG)			
110.0 (DUG)	FSS	(602)	EM 4-5353
Flagstaff	WB	(602)	774-1474
Phoenix (Sky Harbor) 115.6 326 (PHX)	FSS	(602)	261-4295
	WB	(602)	BR 5-8501•
	WB	(602)	%
Prescott (AAS) 114.1 347 (PRC)	FSS	(602)	HI 5-2160
Tucson 117.1 338 (TUS)	FSS	(602)	294-1463
	WB	(602)	%
Winslow	WB	(602)	289-3592
Yuma 116.8 (YUM)	FSS	(602)	725-2601
	WB	(602)	725-2605
			(0430-2030)

ARKANSAS

Location and Frequencies		Code Area	Telephone
El Dorado (AAS) (Goodwin) 108.2 368 (ELD)	FSS	(501)	UN 3-9313
Fayetteville (AAS) (Drake) 116.4 (FYV)	FSS	(501)	HI 2-8277
Ft. Smith 110.4 311 (FSM)	FSS	(501)	MI 6-1791

ARKANSAS (Con't)

Location and Frequencies		Code Area	Telephone
	WB	(501)	MI 6-5731†
Harrison (AAS) 110.8 (HRO)	FSS	(501)	EM 5-3433
Little Rock	WB	(501)	FR 4-1546†
Pine Bluff (AAS) (Grider) 116.0 (PBF)	FSS	(501)	JE 5-0652
Texarkana 116.3 349 (TXK)	FSS	(501)	774-6221
Walnut Ridge (AAS) 114.5 (ARG)	FSS	(501)	TU 6-6671

CALIFORNIA

Location and Frequencies		Code Area	Telephone
Arcata (AAS) 233 (CV)	FSS	(707)	TE 9-2071
Bakersfield (Meadows) 115.4 239 (BFL)	FSS	(805)	399-1787
	WB	(805)	%
Bishop			UP 3-3213
			(0545-1915)
Blythe (AAS) 117.4 251 (BLH)	FSS	(714)	948-6638
Burbank	WB	(213)	848-1460†
	WB	(213)	848-3285•
Crescent City (AAS) (McNamara FLD) 109.0 (CEC)	FSS	(707)	IN 4-2514
Daggett (AAS) 113.2 365 (DAG)	FSS	(714)	CL 4-2223
Fresno (Air Terminal) 112.9 344 (FAT) 3023.5RX	FSS	(209)	251-8260
	FSS	(209)	251-8269
	WB	(209)	%
Imperial (AAS) 115.9 (IPL)	FSS	(714)	355-1948
Long Beach	WB	(213)	429-3563†
	WB	(213)	DA 3-4626•
			Via Los Angeles
Los Angeles (International) 113.6 332 (LAX)	FSS	(213)	SP 6-2727
	WB	(213)	670-2223•
	WB	(213)	SP 6-1640•
Marysville (AAS) (Yuba Co.) 305 (MYV)	FSS	(916)	SH 2-1449
Montague (AAS) (Siskiyou Co.) 382 (SIY)	FSS	(213)	459-3003
Mt Shasta	WB	(916)	926-2727
			(0730-1600)
Needles (AAS) 115.2 269 (EED)	FSS	(714)	326-3511
Oakland (Metropolitan-International) 116.8 362 (OAK)	FSS	(415)	638-5714
	WB	(415)	%
	WB	(415)	832-5418•
			(Via San Francisco)
Ontario 117.0 (ONT)	FSS	(714)	YU 4-6631

CALIFORNIA (Con't.)

Location and Frequencies		Code Area	Telephone
Palmdale (USAF Plant #42) 114.5 317 (PMD)	FSS	(805)	947-3502
Paso Robles (AAS) 114.3 (PRB)	FSS	(415)	238-2448
Red Bluff (AAS) (Bidwell) 115.7 338 (RBL)	FSS	(916)	527-0242
	WB	(916)	%
Sacramento 115.2 (SAC)	FSS	(916)	GA 8-6500
Salinas 117.3 (SNS)	FSS	(408)	422-4723
San Diego (Lindbergh) 117.8 (SAN)	FSS	(714)	296-3181
	WB	(714)	%
San Francisco	IFSS	(415)	588-2284
	WB	(415)	589-6711*
	WB	(415)	761-2052†
	WB	(415)	588-0312
Santa Barbara 114.9 (SBA)	FSS	(805)	967-2305
Santa Catalina Island	WB		Avalon 703
Santa Maria	WB	(805)	WA 5-3525
			(0600-2200)
Stockton 116.0 (SCK)	FSS	(209)	466-3684
	WB	(209)	464-6283†
Thermal (AAS) 116.2 (TRM)	FSS	(714)	EX 9-5155
Ukiah (AAS) 112.3 (UKI)	FSS	(707)	462-6136

COLORADO

Akron (AAS) 114.4 388 (AKO)	FSS	(303)	345-2271
Alamosa	WB	(303)	589-2547
			(0400-2000)
Colorado Springs	WB	(303)	632-0535†
Denver (Stapleton Air Field) 116.3 379 (DEN)	FSS	(303)	297-3277
	WB	(303)	297-3049†
	WB	(303)	388-3653*
Eagle (AAS) (EGE)	FSS	(303)	328-2125
Grand Junction (Walker Field) 112.4 396 (GJT)	FSS	(303)	CH 2-1801
	WB	(303)	243-0914
La Junta (AAS) (LHX)	FSS	(303)	DU 4-4311
Pueblo (Memorial) 116.7 373 (PUB)	FSS	(303)	948-3301
	WB	(303)	948-3376†
Trinidad 329 (TAD)	FSS	(303)	846-2623

CONNECTICUT

Bridgeport	WB	(203)	378-2344
Hartford (Bradley Field)	WB	(203)	247-2855†
New Haven	WB	(203)	469-2141†
			(0630-1700)
Windsor Locks (Bradley Field) (BDL) 3023.5RX	FSS	(203)	NA 3-2416
	WB	(203)	NA 3-5590

DELAWARE

Wilmington	WB	(302)	EA 8-2755†

DISTRICT OF COLUMBIA

Washington (Chantilly, Va) Dulles Intl (27.5¢ toll)	WB	(703)	661-8526†
Washington (National) 111.0 332 (DCA)	FSS	(202)	DI 7-1442
	WB	(202)	DI 7-8016*
	WB	(202)	NA 8-0491†
	WB	(202)	%;

FLORIDA

Apalachicola	WB	(305)	653-3171
Crestview (AAS) 115.9 350 (CEW)	FSS	(305)	MU 2-2795

FLORIDA (Con't.)

Location and Frequencies		Code Area	Telephone
Daytona Beach 112.6 (DAB)	FSS	(305)	255-[illegible]
	WB	(305)	CL 2-[illegible]
Ft. Myers (AAS) (Page Field) 117.6 341 (FMY)	FSS	(813)	WE [illegible]
	WB	(813)	WE 6-[illegible]
			(0600-[illegible] Apr-[illegible]
			(0600-[illegible] Nov-[illegible]
Gainesville (AAS) 116.2 (GNV)	FSS	(305)	FR [illegible]
Jacksonville (Imeson) 114.5 344 (JAX)	FSS	(305)	EL [illegible]
	WB	(305)	EL [illegible]
			(0300-[illegible]
	WB	(305)	EL [illegible]
Key West (AAS) (International) 115.3 332 (EYW)	FSS	(305)	CY [illegible]
	WB	(305)	CY [illegible]
Lakeland (Drane)	WB	(305)	[illegible]
			(0600-2400 Nov 15-Mar [illegible]
			(0800-1700 Mar 16-Nov [illegible]
Melbourne (AAS) (J.F.K. Mem'l) 109.8 257 (MLB)	FSS	(305)	PA [illegible]
Miami 115.9 365 (MIA)	IFSS	(305)	[illegible]
	WB	(305)	%
	WB	(305)	[illegible]
Orlando (Herndon) 112.2 (ORL)	FSS	(305)	CH [illegible]
	WB	(305)	[illegible]
			[illegible]
Pensacola 326 (PNS)	FSS	(305)	HE [illegible]
St Petersburg via Tampa	WB	(813)	[illegible]
Tallahassee 117.5 379 (TLH)	FSS	(305)	[illegible]
	WB	(305)	[illegible]
Tampa (Tampa International) 388 (TPS) 3023.5 RX	FSS	(813)	[illegible]
	WB	(813)	[illegible]
	WB	(813)	[illegible]
Vero Beach (AAS) 117.3 (VRB)	FSS	(305)	[illegible]
W Palm Beach (Palm Beach International) 115.5 356 (PBI)	FSS	(305)	[illegible]
	WB	(305)	%

GEORGIA

Albany (AAS) 112.9 (ABY)	FSS	(912)	HE [illegible]
Alma (AAS) 115.1 (AMG)	FSS	(912)	[illegible]
Athens	WB	(404)	LY [illegible]
Atlanta (Fulton Co.) (AAS) 108.2 (FTY)	FSS	(404)	[illegible]
	WB	(404)	[illegible]
	WB	(404)	[illegible]
Augusta (Bush Fld) 113.9 385 (AGS)	FSS	(404)	[illegible]
	WB	(404)	[illegible]
Brunswick (AAS) (Malcom McKinnon) 109.8 (SSI)	FSS	(912)	[illegible]
Columbus (Muscogee County) 117.1 335 (CSG)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
			[illegible]
Macon (Cochran) 114.2 (MCN)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
Rome	WB	(404)	[illegible]
			[illegible]
			[illegible]
Savannah (Travis) 112.7 (SAV)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
Valdosta (AAS) 110.4 (VLD)	FSS	(912)	[illegible]

IDAHO

Boise (Air Terminal) 113.3 359 (BOI)	FSS	(208)	[illegible]
	WB	(208)	%
Burley (AAS) 114.1 272 (BYI)	FSS	(208)	[illegible]
Idaho Falls (Fanning Field) 108.2 350 (IDA)	FSS	(208)	[illegible]
Malad City 117.4 332 (MLD)	FSS	(208)	[illegible]
Mullan Pass 117.8 411 (MLP)	FSS	(208)	[illegible]

IDAHO (Con't.)

Location and Frequencies		Code Area	Telephone
[illegible]	WB	[illegible]	SH 3-3841
			(0330-1930)
[illegible] (PIH)	FSS	(208)	232-2032
	WB	[illegible]	233-0137

ILLINOIS

[illegible] University of Ill.) 110.0 (CMI)	FSS	(217)	822-5211
[illegible]	WB	(312)	686-2155†
	WB	(312)	667-5055*
[illegible] AAS) 112.3 (JOT)	FSS	(815)	725-3144
	FSS	(312)	242-3111
[illegible] Quad City) 114.4 (MLI)	FSS	(309)	762-2412
	WB	(309)	762-1726
[illegible] Greater Peoria) 115.2 356 (PIA)	FSS	(309)	697-0751
	WB	(309)	637-6427†
[illegible] Baldwin) 113.1 (UIN)	FSS	(217)	TU 5-3251
[illegible] (Greater Rockford) 110.8 (RFD) 302.3.5RX	FSS	(815)	965-6758
	WB	(815)	963-5816†
			(0515-2115)
[illegible] (Capital) 112.7 (CAP) 379 (SPI)	FSS	(217)	544-9012
	WB	(217)	523-5812
[illegible] AAS) 114.3 (VLA)	FSS	(618)	283-0478

INDIANA

[illegible] (Dress Memorial) 113.3 (EVV) 302.3.5RX	FSS	(812)	HA 2-8120
	WB	(812)	HA 4-9613*
[illegible] Bayne (Baer Field) 113.9 251 (FWA)	FSS	(219)	747-3139
	WB	(219)	747-2577†
[illegible] (Weir-Cook) 116.3 266 (IND)	FSS	(317)	CH 4-9561
	WB	(317)	CH 4-7411*
	WB	(317)	CH 4-3382†
[illegible] (AAS) (Purdue University) 113.7 (LAF)	FSS		RI 3-1802 3
[illegible] Bend (St. Joseph Co.) 115.4 (SBN)	FSS	(219)	CE 3-4433
	WB	(219)	234-3937†
[illegible] Haute (Hulman) 111.8 245 (HUF)	FSS		C-2704

IOWA

[illegible] (AAS) 111.4 (BRL)	FSS	(319)	752-4734
[illegible] Rapids 117.6 (CID)	FSS	(319)	364-3041
[illegible] (via Moline Ill.)	WB	(319)	326-2677
[illegible] Moines 114.1 (DSM)	FSS	(515)	285-5691
	WB	(515)	284-4493†
[illegible]	WB	(319)	582-0174
			(0545-2105)
[illegible] City 114.9 (MCW)	FSS	(515)	GA 3-7512
[illegible] 111.6 (OTM)	FSS	(515)	MU 2-1846
[illegible] City 116.5 (SUX)	FSS	(712)	258-1060
	WB	(712)	252-0244
			Ext 210
[illegible] 108.2 (ALO)	FSS	(319)	AD 3-5528
	WB	(319)	234-9902

KANSAS

[illegible]	WB	(913)	CH 3-3141
[illegible] 109.2 (CNU)	FSS	(316)	HE 1-4450
[illegible] City (AAS) 108.2 (DDC)	FSS	(316)	HU 3-3441
	WB	(316)	HU 3-3311
[illegible] 112.8 (EMP)	FSS	(316)	DI 2-7475
[illegible] City (AAS) (New Municipal) 113.3 (GCK)	FSS	(316)	BR 6-2531
[illegible] (AAS) 115.1 (GLD)	FSS	(913)	TW 9-7154
	WB	(913)	TW 9-2360†

KANSAS (Con't.)

Location and Frequencies		Code Area	Telephone
Hill City (AAS) 113.7 (HLC)	FSS	(913)	674-5642
Hutchinson 116.9 (HUT)	FSS	(316)	2-4851
Manhattan (AAS) (MHK) 121.7 / 121.5	FSF	(913)	PR 6-9751
			(0600-1800)
Russell 114.5 (RSL)	FSS	(913)	483-2312
Salina 115.3 (SLN)	FSS	(913)	TA 5-5309
Topeka (Phillip B. Billard) 117.8 (TOP)	FSS	(913)	CE 2-5478
	WB	(913)	CE 4-2592†
Wichita 113.8 332 (ICT)	FSS	(316)	WH 2-2261 2
	WB	(316)	WH 2-3284*
	WB	(316)	WH 3-1063†

KENTUCKY

Bowling Green (Warren County) 117.9 (BWG)	FSS	(502)	VI 3-4424
Erlanger (Gtr. Cincinnati Arpt.)	WB	(513)	381-8195†
Lexington (Blue Grass) 117.0 (LEX)	FSS	(606)	254-5143
	WB	(606)	255-1774†
London 116.1 (LOZ)	FSS	(606)	864-4410
Louisville - Bowman 114.8 (LOU)	FSS	(502)	451-5344
	WB	(502)	368-2188†
Paducah (Barkley) 117.3 356 (PUK)	FSS	(502)	442-1551

LOUISIANA

Alexandria 116.1 251 (AEX)	FSS	(318)	445-3663
	WB	(318)	433-7539*
			(0600-2200)
Baton Rouge (Ryan) 116.5 (BTR) 302.3.5RX	FSS	(504)	EL 5-2763
	WB	(504)	EL 7-9943†
Lafayette 110.8 375 (LFT)	FSS		CE 5-3752
	WB		234-1220†
Lake Charles 113.4 242 (LCH)	FSS	(318)	477-1784
	WB	(318)	477-5227†
Monroe (Selman) 113.7 (MLU)	FSS	(318)	322-3157
New Orleans 113.2 338 (MSY)	FSS	(504)	943-5535
	WB	(504)	523-4311*
	WB	(504)	729-2520†
Shreveport (Greater Shreveport) 117.4 230 (SHV)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141†

MAINE

Augusta (State) 111.4 221 (AUG)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton (Memorial International) 108.2 (HUL)	FSS	(207)	532-2475
Millinocket (AAS) 117.9 344 (MLT)	FSS	(207)	723-8343
Old Town (OLD)	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland (PWM)	FSS	(207)	SP 5-0602
	WB	(207)	775-3071†

MARYLAND

Baltimore	WB	(301)	761-1333*
	WB	(301)	766-0757*
			(0600-1800)
Salisbury (Salisbury-Wicomico) 114.5 (SBY)	FSS	(301)	742-7324

MASSACHUSETTS

Location and Frequencies		Code Area	Telephone
Boston (Logan) 117.7 382 (BOS) 3023.5RX	FSS	(617)	LO 7-0099
	FSS	(617)	LO 7-0015
	WB	(617)	%
	WB	(617)	569-1773*
			(0600-2300)
Nantucket (AAS) 112.7 (ACK) 3023.5R	FSS	(617)	228-0815
	WB	(617)	228-0971
Worcester (ORH)	FSS	(617)	PL 5-6083
	WB	(617)	798-2124†

MICHIGAN

Alpena	WB	(517)	354-8733*
			(0645-1915)
Battle Creek (Kellogg) 109.4 (BTL)	FSS	(616)	2-7878
Detroit (Metropolitan Wayne) 388 (DTW)	FSS	(313)	PA 2-8790
			274-5310*
	WB	(313)	274-5310*
Detroit (Willow Run)	WB	(313)	482-5001†
	WB	(313)	CR 4-5310
Flint (Bishop) 111.6 (FNT)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987*
Grand Rapids (Kent County) 110.2 (GRR)	FSS	(616)	949-4090
	WB	(616)	949-4251†
Houghton (AAS) (Houghton County) 112.8 227 (CMX)	FSS	(906)	482-0380
Houghton Lake (Roscommon County) 122.8 (HTL)	WB	(517)	366-5392
Jackson (AAS) (Reynolds Mun.) 109.6 (JXN)	FSS	(517)	ST 4-9640
Lansing (Capital City) 110.8 (LAN) 3023.5RX	FSS	(517)	2-9237
	WB	(517)	IV 9-2415†
Marquette 109.0 (MQT)	FSS	(906)	GR 5-4197
	WB	(906)	CA 6-8642†
			(0515-2100)
Muskegon (Muskegon County) 115.2 (MKG)	FSS	(616)	SW 8-1222
	WB	(616)	SW 8-3048
Pellston (AAS) (Emmet County) 111.8 332 (PLN)	FSS	(616)	LE 9-8401
Saginaw (Tri City) 112.9 212 (MBS)	FSS	(517)	OX 5-6621
Sault Ste Marie (AAS) 112.2 400 (SSM)	FSS	(906)	ME 2-8271
	WB	(906)	ME 2-7751
Traverse City 112.4 365 (TVC)	FSS	(616)	947-5056

MINNESOTA

Alexandria (AAS) 112.8 (AXN)	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982†
Hibbing (Chisholm-Hibbing) (AAS) 110.8 (HIB)	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis (Wold-Chamberlain) 117.3 266 (MSP)	FSS	(612)	PA 9-9386
	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429†
	WB	(612)	PA 9-9339*
Redwood Falls (AAS) 113.3 (RWF)	FSS	(507)	ME 7-8530
Rochester 112.0 (RST)	FSS	(507)	289-1579
	WB	(507)	289-0026†
St. Cloud	WB	(612)	251-3213*
			(0400-2200)
St. Paul	WB	(612)	PA 9-4429†

MISSISSIPPI

Greenwood (AAS) 114.7 (GRW)	FSS	(601)	GL 3-2631
Jackson (Thompson Field) 112.6 260 (JAN)	FSS	(601)	939-5212
	WB	(601)	939-5881†

MISSISSIPPI (Con't.)

Location and Frequencies		Code Area	Telephone
McComb (AAS) (Pike County) 116.7 (MCB)	FSS	(601)	684-[illegible]
Meridian (AAS) (Key Field) 117.0 356 (MEI)	FSS	(601)	485-[illegible]
	WB	(601)	485-[illegible]
Vicksburg	WB	(601)	638-[illegible]
			(0630-1630 Mar-[illegible]
			(0630-1130 Sat, Sun [illegible]

MISSOURI

Cape Girardeau (CGI)	FSS	(314)	ED 4-[illegible]
Columbia 111.2 (CBI)	FSS	(314)	GI 5-[illegible]
	WB	(314)	GI 5-[illegible]
Joplin (JLN)	FSS	(417)	MA 3-[illegible]
Kansas City 112.6 359 (MKC)	FSS	(816)	[illegible]
	WB	(816)	GR [illegible]
	WB	(816)	GR [illegible]
Kirksville (AAS) 114.6 (IRK)	FSS	(816)	MO 4-[illegible]
St. Joseph (Rosecrans Memorial) 108.2 (STJ)	FSS	(816)	AD 4-[illegible]
St. Louis (Lambert) 117.4 338 (STL)	FSS	(314)	PE 1-44[illegible]
	WB	(314)	PE 1-[illegible]
	WB	(314)	PE 1-[illegible]
	WB	(314)	TH 4-[illegible]
			(Hazelwood
Springfield 116.9 254 (SGF)	FSS	(417)	UN 2-[illegible]
	WB	(417)	UN 2-[illegible]
Vichy (AAS) (Rolla National) 117.7 (VIH) 3023.5RX	FSS	(314)	AX 5-[illegible]

MONTANA

Billings (Logan Field) 114.5 400 (BIL)	FSS	(406)	245-[illegible]
	WB	(406)	252-[illegible]
Bozeman (AAS) (Gallatin Field) 112.2 329 (BZN) 3023.5RX	FSS	406	587-[illegible]
Butte (AAS) (Silver Bow) 111.6 (BTM)	FSS	(406)	723-[illegible]
Cut Bank (AAS) 114.4 263 (CTB) 3023.5R	FSS	(406)	338-[illegible]
Dillon (AAS) 113.0 379 (DLN)	FSS	(406)	683-[illegible]
Glasgow	WB	(406)	228-[illegible]
			[illegible]
Great Falls (International) 115.1 371 (GTF) 3023.5RX	FSS	(406)	452-[illegible]
	WB	(406)	453-[illegible]
Havre	WB	406	265-[illegible]
			[illegible]
Helena (City-County) 117.7 317 (HLN)	FSS	(406)	442-[illegible]
			[illegible]
	WB	406	442-[illegible]
Lewistown (AAS) 112.0 353 (LWT)	FSS	(406)	538-[illegible]
Livingston (AAS) (Mission Field) 116.1 224 (LVM)	FSS	406	222-[illegible]
Miles City 112.1 320 (MLS)	FSS	406	232-[illegible]
Missoula (AAS) (Missoula City) 112.8 308 (MSO)	FSS	406	543-[illegible]
	WB	406	543-[illegible]

NEBRASKA

Chadron (AAS) 113.4 275 (CDR)	FSS	308	432-[illegible]
Grand Island 112.0 (GRI)	FSS	308	382-[illegible]
	WB	308	384-[illegible]
Imperial (AAS) (IML)	FSS	308	882-[illegible]
Lincoln (Union) (LKN) 3023.5RX	FSS	402	477-[illegible]
	WB	402	[illegible]
Norfolk	WB	402	371-[illegible]
			[illegible]

NEBRASKA (Con't.)

Location and Frequencies		Code Area	Telephone
...Plate AAS (Lee Bird) 117.4 224 (LBF)	FSS	(308)	LE 2-4034†
	WB	(308)	537-9577†
...(Eppley) 116.3 320 (OMA)	FSS	(402)	341-6178
	WB	(402)	341-5436†
	WB	(402)	342-3603*
...(AAS) 112.6 341 (BFF)	FSS	(308)	635-2615
	WB	(308)	632-6822
... 115.7 (SNY)	FSS	(308)	254-3130
...	WB	(402)	376-3442

NEVADA

... 114.5 391 (EKO)	FSS	(702)	738-6506
...AAS (Yelland Field) 110.6 (ELY)	FSS	(702)	264-2045
	WB	(702)	264-2403
...Vegas (McCarran) 116.9 206 (LAS)	FSS	(702)	736-1573 4
	WB	(702)	736-4633*
...(AAS) (Derby Field) 116.5 209 (LOL)	FSS	(702)	CR 3-2448
... 117.9 254 (RNO)	FSS	(702)	FA 9-4444
	WB	(702)	784-5402†
...(Nye County) 117.2 221 (TPH)	FSS	(702)	482-6421
...ucca	WB	(702)	623-2203

NEW HAMPSHIRE

...ord 11.29 (CON)	FSS	(603)	224-7474
	WB	(603)	225-5191
			(0600-1900)
...(Regional) 111.6 (LEB)	FSS	(603)	296-8360

NEW JERSEY

...antic City	WB	(609)	641-4327†
...ville 115.8 363 (MIV)	FSS	(609)	825-1173
...ark	WB	(201)	MA 4-8118
			MA 4-7272*
			(Via New York)
...boro (TEB)	FSS	(201)	AT 8-9092

NEW MEXICO

...querque 113.2 230 (ABQ)	FSS	(505)	CH 3-7832
	WB	(505)	242-2661*
	WB	(505)	CH 3-7832
...sbad (AAS) 116.3 (CNM)	FSS	(505)	TU 5-2042
...ton	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)
...(AAS) 108.6 (DMN)	FSS	(505)	546-2726
...ington (AAS) 115.3 (FMN)	FSS	(505)	DA 5-9271
...nts (AAS) 116.5 (GNT)	FSS	(505)	AT 7-3011
...bbs (Lea County) 111.0 (HOB)	FSS	(505)	EX 3-3222
...s Vegas (AAS) 117.3 (LVS)	FSS	(505)	GA 5-7411
...ton	WB	(505)	445-3891
			(0545-1225)
...swell (AAS) 116.1 305 (ROW)	FSS	(505)	622-6780
	WB	(505)	622-5850
			(0430-1230)
...nta Fe 110.6 (SAF)	FSS	(505)	YU 3-6581

NEW MEXICO (Con't.)

Location and Frequencies		Code Area	Telephone
Silver City	WB	(505)	538-9023
			(0530-2000 Mon-Fri)
			(0530-1330 Sat)
Truth or Consequences (AAS) 112.7 (TCS)	FSS	(505)	894-3277
Tucumcari (AAS) 113.6 (TCC)	FSS	(505)	461-2900
Zuni 113.4 (ZUN)	FSS	(505)	782-3770

NEW YORK

Albany (Albany County) 116.9 (ALB)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173†
Binghamton (Broome County) 114.3 317 (BGM)	FSS		RA 9-6145
	WB	(607)	797-0784†
Buffalo (Greater Buffalo) 116.4 260 (BUF)	FSS	(716)	NF 2-6083
	WB	(716)	632-5042*
	WB	(716)	632-6952†
Elmira (Chemung County) 113.7 375 (ELM)	FSS	(607)	RE 9-2471
Glens Falls (AAS) (Warren County) 110.2 (GFL)	FSS	(518)	RX 3-2593
Islip (MacArthur Fld)	FSS	(914)	SC 3-4330
	WB	(212)	995-8659
	WB	(516)	JU 8-1060-1
	WB		OL 6-7474*
Massena (AAS) 114.1 (MSS)	FSS	(315)	RO 9-2033
New York (John F. Kennedy Intl)	IFSS	(212)	995-8659
	WB	(212)	995-9151†
New York (LaGuardia)	WB	(212)	NE 9-2118†
Poughkeepsie (Dutchess County) 117.2 (POU)	FSS	(914)	462-3400
Rochester (Monroe County) 110.0 (ROC)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391†
Syracuse (Hancock) 117.0 350 (SYR)	FSS	(315)	GL 4-2479
	WB	(315)	454-1214*
Utica (Oneida) 108.6 275 (UCA)	FSS	(315)	RE 6-9023
Watertown (AAS) 109.8 (ART) 3023.5RX	FSS	(315)	NE 9-3321

NORTH CAROLINA

Asheville 117.2 (AVL)	FSS	(704)	684-4401
	WB	(704)	648-6086
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-1019†
Durham	WB	(919)	596-2326
Elizabeth City (Coast Guard Air Station) 109.4 (ECG)	FSS	(919)	338-3808
Fayetteville (Grannis Field) 108.8 (FAY)	FSS	(919)	HE 3-3468
Greensboro	WB	(919)	299-9499†
Hickory (AAS) 110.8 (HKY)	FSS	(704)	DA 7-8281
New Bern (AAS) (Simmons-Nott) 108.4 379 (EWN)	FSS	(919)	ME 7-2080
Raleigh Durham 117.2 350 (RDU)	FSS	(919)	787-4289
	WB	(919)	787-4082†
Rocky Mount (AAS) 117.8 (RMT)	FSS	(919)	446-6637
Wilmington (New Hanover County) 117.0 (ILM)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	724-2208†

NORTH DAKOTA

Bismarck 116.5 230 (BIS 3023.5RX	FSS	(701)	CA 3-8790
	WB	(701)	223-0920†
Dickinson (AAS) 112.9 308 (DIK)	FSS	(701)	224-2989
Fargo (Hector) 116.2 365 (FAR)	FSS	(701)	AD 5-8894
	WB	(701)	232-1584
Grand Forks (International) 109.4 (GFK)	FSS	(701)	772-3291
Jamestown (AAS) 114.5 344 (JMS)	FSS	(701)	CL 2-4350
Minot (International) 117.1 209 (MOT)	FSS	(701)	833-8112
Williston	WB	(701)	473-3198†
			(0445-2045)

OHIO

Location and Frequencies		Area Code	Telephone
Akron 114.6 362 (ACO)	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246†
Canton	WB	(216)	499-7933†
Cincinnati (Lunken) 112.9 335 (CVG)	FSS	(513)	321-1434
	WB	(513)	381-8195†
	WB	(513)	381-2300*
	WB	(513)	381-6706†
Cleveland (Hopkins) 113.6 344 (CLE)	FSS	(216)	267-3700
	WB	(216)	267-3410*
	WB	(216)	267-0149
Columbus 391 (CMH)	FSS	(614)	237-8478
	WB	(614)	%
Dayton 117.5 (DAY)	FSS	(513)	898-4639
	WB	(513)	898-4620†
			(Vandalia Exchange)
Findlay 108.2 209 (FDY)	FSS	(419)	GA 2-3237
Mansfield 108.8 374 (MFD)	FSS	(614)	524-5323
	WB	(614)	522-7070
			(0600-1800)
Toledo (Express) (TOL)	FSS	(419)	242-4171
	WB	(419)	865-4472†
Youngstown 109.0 (YNG)	FSS	(216)	LI 5-8041
	FSS	(216)	856-4806
	WB	(216)	856-4801†
Zanesville (AAS) 111.4 275 (ZZV)	FSS	(614)	452-8611

OKLAHOMA

Ardmore (AAS) 116.7 400 (ADM)	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage (AAS) 115.6 (GAG)	FSS	(405)	923-2601
Hobart (AAS) 111.8 (HBR)	FSS	(405)	GE 6-4234
McAlester (AAS) 112.0 (MLC)	FSS	(918)	GA 3-4091
Oklahoma City (Will Rogers) 115.0 350 (OKC)	FSS	(405)	SU 9-7452
	WB	(405)	MU 5-4433*
	WB	(405)	MU 5-6350†
Ponca City (AAS) 113.2 368 (PNC)	FSS	(405)	RO 5-5485
Tulsa 114.4 245 (TUL)	FSS	(918)	TE 8-3316
	WB	(918)	TE 5-4775†
			TE 5-2364*

OREGON

Astoria	WB	(503)	861-2722
Baker (AAS) 115.3 221 (BKE)	FSS	(503)	523-2961
Eugene (AAS) (Mahlon-Sweet) 112.9 248 (EUG)	FSS	(503)	DI 3-7738
	WB	(503)	344-0141†
Klamath Falls (Kingsley Field) 115.9 242 (LMT) 3023.5RX	FSS	(503)	TU 4-8223
	WB	(503)	TU 2-5060
			(0800-1600)
Meacham	WB	(503)	Meacham 2
			(0700-1500)
Medford 113.6 263 (MFR)	FSS	(503)	772-6523
	WB	(503)	773-1067
North Bend (AAS) 112.1 (OTH)	FSS	(503)	756-4916
Pendleton 114.7 341 (PDT) 3023.5RX	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland (International) 116.6 332 (PDX)	FSS	(503)	AT 2-7293
	WB	(503)	AT 2-2285*
	WB		%
Redmond (AAS) (Roberts Field) 117.6 368 (RDM)	FSS	(503)	548-2522

OREGON (Con't.)

Location and Frequencies		Area Code	Telephone
Salem	WB	(503)	[illegible]
			(0530-[illegible]
The Dalles (AAS) 117.2 230 (DLS)	FSS	503	PO [illegible]

PENNSYLVANIA

Allentown (Bethlehem-Easton) 117.5 321 (ABE)	FSS	(215)	264-[illegible]
	WB	(215)	264-[illegible]
Altoona (Blair County) 108.8 (AOO)	FSS	(814)	TE-[illegible]
Bradford (Bradford-McKean) 116.6 224 (BFD)	FSS	(814)	362-[illegible]
DuBois 356 (DUJ)	FSS	(814)	DA [illegible]
Erie (Port Erie) 112.7 372 (ERI)	FSS	(814)	TE [illegible]
	WB	(814)	TE [illegible]
Harrisburg (Harrisburg-York State) 112.5 338 (HAR)	FSS	(717)	233-[illegible]
	WB	(717)	233-[illegible]
North Philadelphia 112.0 (PNE)	FSS	(215)	GR [illegible]
	WB	(717)	SA [illegible]
	WB	(717)	SA [illegible]
			(0500-[illegible]
Philipsburg (AAS) (Black Moshannon) 115.5 236 (PSB)	FSS	(717)	DI [illegible]
Pittsburgh (Allegheny) 117.1 254 (AGC)	FSS	(412)	HO [illegible]
	WB	(412)	771-[illegible]
			(0500-[illegible]
Reading	WB	(215)	771-[illegible]
Scranton	WB	(412)	275-[illegible]
			(0700-0900 Sun, 0700-[illegible]
			(0700-1530 Mon-F[illegible]
	WB	(412)	65[illegible]
Wilkes-Barre (Wilkes-Barre/Scranton) 117.8 (AVP)	FSS	(717)	GL [illegible]
	WB	(412)	45[illegible]
			[illegible]
Williamsport (Williamsport/Lycoming) 114.4 385 (IPT)	FSS	(412)	368-[illegible]
	WB	(412)	368-[illegible]
	WB	(412)	368-[illegible]
			[illegible]

RHODE ISLAND

Providence (Green) 115.6 (PVD)	FSS	(401)	PE [illegible]
	WB	(401)	737-[illegible]

SOUTH CAROLINA

Anderson (AAS) 108.6 (AND)	FSS	(803)	CA [illegible]
	FSS	(803)	CA [illegible]
Charleston 113.5 329 (CHS) 3023.5RX	FSS	(803)	SH [illegible]
	WB	(803)	[illegible]
	WB	(803)	[illegible]
			[illegible]
Columbia 114.7 (CAE)	FSS	(803)	AL [illegible]
	WB	(803)	[illegible]
Florence (AAS) 115.2 (FLO)	FSS	(803)	MC [illegible]
	WB	(803)	[illegible]
Greer	FSS	(803)	[illegible]
			[illegible]
			[illegible]
Greenville	WB	(803)	[illegible]
			[illegible]
Myrtle Beach 116.0 (MYR)	FSS	(803)	[illegible]
Spartanburg	WB	(803)	[illegible]
			[illegible]

SOUTH DAKOTA

Location and Frequencies		Code Area	Telephone
[illegible] 113.0 329 (ABR)	FSS	(605)	BA 5-5264
	WB	(605)	225-7[illegible]*
[illegible] (W W Homes) 117.6 391 (HON)	FSS	(605)	EL 7-3806
	WB	(605)	35[illegible]-2495†
			(0[illegible]-2100)
[illegible] AAS) 112.5 347 (PIR)	FSS	(605)	224-5894
[illegible] City 112.3 254 (RAP) 3023.5RX	FSS	(605)	FI 2-2280
	WB	(605)	342-0258
[illegible] Falls 115.0 245 (FSD)	FSS	(605)	ED 8-4841
	WB	(605)	338-[illegible]†
[illegible] town (AAS) 116.6 (ATY)	FSS	(605)	TU 6-4581

TENNESSEE

[illegible]ville	WB	(615)	323-8242
[illegible]nooga	WB	(615)	89[illegible]-3747†
[illegible]ville (AAS) (Crossville-Cumberland) 117.6 (CSV)	FSS	(615)	484-6711
[illegible]burg (AAS) 116.8 (DYR)	FSS	(901)	AT 5-4842
			(0600-2700)
[illegible]son (AAS) (McKellar) 109.4 (JKS) 3023.5RX	FSS	(901)	7-0611
[illegible]son City	WB	(615)	323-8242
			(Blountville exchange)
[illegible]	WB	(615)	323-8242†
[illegible]ville (McGhee-Tyson) 116.4 257 (TYS)	FSS	(615)	577-0795
	WB	(615)	577-4805†
[illegible]phis 115.5 371 (MEM)	FSS	(901)	398-9260 9
	WB	(901)	398-[illegible]*
	WB	(901)	398-2672†
[illegible]sville (Metropolitan) 114.1 304 (BNA)	FSS	(615)	AL 4-6552 3
	WB	(615)	256-0333†
[illegible] City (TRI)	FSS	(615)	FA 3-7242

TEXAS

[illegible]lene 113.7 (ABI)	FSS	(915)	OR 4-6915
	WB	(915)	OR 4-8844†
[illegible]ce (AAS) 114.5 (ALI)	FSS	(512)	MO 4-4791
[illegible]rillo (Air Terminal) 117.2 251 (AMA)	FSS	(806)	DI 9-1608
	WB	(806)	DI 9-2261
[illegible]stin (Robert Mueller) 112.5 (AUS)	FSS	(512)	GR 8-6695
	WB	(512)	GR 6-8554†
[illegible]umont (Jefferson County) 114.9 (BPT)	FSS	(512)	RA 2-0288
	WB	(512)	RA 2-7011†
[illegible]nsville (Rio Grande Valley International) 116.3 388 (BRO)	FSS	(512)	LI 6-6421
	WB	(512)	LI 2-8231†
[illegible]gress 117.6 (CDS)	FSS	(817)	WE 7-3892
[illegible]ege Station (AAS) (Easterwood) 113.3 (CLL)	FSS	(713)	VI 6-8784 5
[illegible]pus Christi	WB	(512)	TU 3-3008†
[illegible]tilla (AAS) 115.8 215 (COT)	FSS	(512)	TR 9-2417
[illegible]hart 112.0 (DHT)	FSS	(806)	CH 9-2006
[illegible]las (Love Field) 114.6 341 (DAL)	FSS	(214)	FL 7-2825
	WB	(214)	AN 4-3481*
	WB	(214)	RI 9-3502†
[illegible] Rio (Intl)	WB	(512)	775-2115
[illegible] Paso (International) 114.5 242 (ELP) 3023.5RX	FSS	(915)	PR 8-4447
	WB	(915)	778-4487*
	WB	(915)	772-3208†
[illegible]rt Worth (AAS) (Meacham) 365 (FTW)	FSS	(817)	MA 4-8444
	WB	(817)	BU 3-1571*
	WB	(817)	BU 3-3961†

TEXAS (Con't.)

Location and Frequencies		Code Area	Telephone
Galveston (AAS) (Scholes) 112.8 206 (GLS)	FSS	(713)	SH 4-3255
	WB	(713)	SO 3-4670†
			(2130-0530)
	WB	(713)	SH 4-7833†
			(0543-2130)
Gregg County (Longview) 112.4 (GGG)	FSS	(214)	
Houston (International) 115.9 332 (HOU) 3023.5RX	FSS	(713)	MI 5-6693
	WB	(713)	MI 4-1507*
	WB	(713)	OL 4-0178†
Junction (AAS) 116.0 (JCT) 121.5 121.7	FSF	(713)	HI 6-2561
			(1200-2400)
Laredo	WB	(512)	RA 3-5584
Lubbock 110.6 391 (LBB)	FSS	(806)	PO 2-5065
	WB	(806)	PO 2-2380†
Lufkin (AAS) (Angelena County) 112.1 356 (LFK)	FSS	(713)	NE 4-3544
McAllen (AAS) (Miller Field) 109.8 (MFE)	FSS	(512)	MU 6-2878
Midland (Air Terminal) 114.8 (MAF)	FSS	(713)	LO 3-2611
	WB	(713)	LO 3-0850†
Mineral Wells (AAS) 117.7 284 (MWL) 3023.5RX	FSS	(713)	FA 5-5922
Odessa	WB	(915)	LO 3-0850†
			(via Midland)
Palacios (AAS) 117.3 (PSX)	FSS	(713)	824-2218
Port Arthur	WB	(713)	RA 2-7011†
San Angelo (Mathis) 115.1 (SJT)	FSS	(713)	655-5638
	WB	(713)	655-9780†
San Antonio (International) 116.8 254 (SAT)	FSS	(512)	TA 6-6323
	WB	(512)	TA 6-0411†
Tyler (Pounds) 320 (TYR)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	HI 5-1276†
Waco 115.3 (ACT)	FSS	(817)	PL 2-4811
	WB	(817)	PL 4-1582
Wichita Falls 112.7 296 (SPS)	FSS	(817)	322-1302
	WB	(817)	322-2011
Wink 112.1 (INK)	FSS	(915)	LA 7-3351

UTAH

Bryce Canyon 112.8 (BCE)	FSS	(801)	TE 4-5311
Cedar City (AAS) 108.6 (CDC)	FSS	(801)	JU 6-9131
Delta 117.6 212 (DTA) 121.5 121.7	FSF	(801)	4741
			(0600-1800)
Hanksville (AAS) 115.9 (HVE)	FSS	(801)	Hanksville 8
Milford	WB	(801)	387-2361
			(0900-1700)
Salt Lake City (Municipal #1) 116.8 227 (SLC)	FSS	(801)	524-5183
	WB	(801)	364-5571*
	WB	(801)	524-5139†
Wendover	WB	(801)	2731
			(0430-2015)

VERMONT

Burlington	WB	(802)	862-2475
Montpelier (Barre-Montpelier) 108.2 257 (MPV)	FSS	(802)	CA 3-2376

VIRGINIA

Blackstone 326 (BKT)	FSS	(703)	292-3826
Bristol	WB	(703)	323-8242†
			(Tri-City)
Chantilly (Dulles)	WB	(703)	661-8526†
Charlottesville (Charlottesville Albemarle) (CHO)	FSS	(703)	973-3909
Danville 113.1 (DAN)	FSS	(703)	SW 3-1163
Newport News (Patrick Henry) (PHF)	FSS	(703)	877-0200
	FSS	(703)	877-0209

VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Norfolk	WB	(703)	853-3014
Richmond (Byrd Field) 114.1 260 (RIC)	FSS	(703)	RE 7-8103
	WB	(703)	737-0550†
Roanoke (Woodrum) 109.4 371 (ROA)	FSS	(703)	EM 6-0011
	WB	(703)	366-2351†

WASHINGTON

Location and Frequencies		Code Area	Telephone
Bellingham 113.0 362 (BLI) 3023.5R	FSS	(206)	734-6400
Ephrata 116.8 269 (EPH)	FSS	(509)	SK 4-2361
Hoquiam (AAS) (Bowerman) 113.1 (HQM)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle (Seattle-Tacoma Int'l.) 114.5 260 (SEA)	FSS	(206)	CH 3-4200
(Federal Bldg)	WB	(206)	MU 2-5318†
(Boeing)	WB	(206)	PA 5-8044†
(Tacoma)	WB	(206)	MU 2-3655*
(Federal Bldg)	WB	(206)	CH 2-5262†
Spokane (AAS) (Felts) 115.5 365 (GEG)	FSS	(509)	KE 5-2906
	WB	(509)	MA 4-5674†
Toledo (AAS) (Toledo-Winlock) 239 (TDO)	FSS	(206)	864-2371
Walla Walla (AAS) (City-County) 111.8 356 (ALW)	FSS	(509)	JA 9-1413
Wenatchee (AAS) (Pangborn) 111.0 (EAT)	FSS	(509)	TU 4-5654
Yakima 116.0 (YKM)	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Location and Frequencies		Code Area	Telephone
Beckley	WB	(304)	252-3171†
Bluefield (AAS) (Mercer County) 115.4 (BLF)	FSS	(304)	325-6521
Charleston (Kanawha) 117.4 (CRW)	FSS	(304)	342-1371
	WB	(304)	%
Elkins (Randolph) 114.5 245 (EKN)	FSS	(304)	636-0810
	WB	(304)	636-1200†
Huntington (Tri-State) 323 (HTS)	FSS	(304)	GL 3-1412
	WB	(304)	453-3674†
Martinsburg (AAS) 112.1 209 (MRB)	FSS	(304)	AM 3-9353
Morgantown (AAS) 111.6 269 (MGW)	FSS	(304)	292-3632

WEST VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Parkersburg (Wood County) 114.2 (PKB)	FSS	(304)	[illegible]
	WB	(304)	[illegible]
		(0700-1400 Mar-[illegible]	
		(0[illegible]-[illegible]	
Wheeling (Ohio County) 112.2 (HLG)	FSS	(304)	[illegible]

WISCONSIN

Location and Frequencies		Code Area	Telephone
Eau Claire (AAS) 112.9 (EAU)	FSS	(715)	[illegible]
Green Bay (Austin Straubel) 117.0 (GRB)	FSS	(715)	[illegible]
	WB	(414)	[illegible]
La Crosse (AAS) 108.4 371 (LSE) 3023.5RX	FSS	(715)	[illegible]
Lone Rock (AAS) (Tri-County 112.8 (LNR) 3023.5RX	FSS	(608)	[illegible]
Madison (Traux) 400 (MSN) 3023.5RX	FSS	(608)	[illegible]
	WB	(608)	[illegible]
Milwaukee (General Mitchell) 116.4 242 (MKE)	FSS	(414)	[illegible]
	WB	(414)	[illegible]
	WB	(414)	[illegible]
Wausau (AAS) 111.6 (AUW)	FSS	(715)	[illegible]

WYOMING

Location and Frequencies		Code Area	Telephone
Casper (Casper Air Terminal) 116.2 269 (CPR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
Cheyenne 113.1 326 (CYS)	WB	(307)	[illegible]
	WB	(307)	[illegible]
Lander	WB	(307)	[illegible]
Laramie (AAS) (General Brees Field) 117.6 245 (LAR)	FSS	(307)	[illegible]
Rawlins (AAS) (RWL)	FSS	(307)	[illegible]
Rock Springs (AAS) 114.7 290 (RKS)	FSS	(307)	[illegible]
Sheridan (AAS) (Sheridan County) 115.3 239 (SHR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
			[illegible]
Worland (AAS) (WRL)	FSS	(307)	[illegible]

AIRMAN'S INFORMATION MANUAL

AIRPORT/FACILITY DIRECTORY

SECTION IV A

EFFECTIVE 0501 Z **1 APRIL 1965**

To 0501 Z **29 APRIL 1965**

FEDERAL AVIATION AGENCY

67-269 O-65-1 IVA

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ALABAMA

MINGHAM MUNI *IFR* 4 NE FSS: BIRMINGHAM on Fld
643 H92 5-23 (2) (S-120, T-170, TT-300) BL6, 8A, 9 S5
FS, JP1, JP4 U2 RVR: Rnwy 5
REMARKS: Acft arresting barriers on overrun rnwy 23. Rnwy 23 threshold displaced 1761' SW. Rnwy 5 9247' lgtd full length.
TOWER 118.7 126.2 122.5R 114.4T 110.3T
GND CON 121.9
APP CON 119.9 126.2 114.4T 110.3T
RADAR SERVICES:
DEP CON 124.9
TFC INFO Ctc APP CON 25 NM out.
ASR Rnwys 5, 23 Ceil 600 Vsby 1 mi Min Alt 1243. Rnwy 18 Ceil 700 Vsby 1 mi Min Alt 1343. Rnwy 36 Ceil 800' Vsby 1 mi Alt 1443.
ILS[1] 110.3 I-BHM Apch Brg 052 BC unusable LOM: 375 BH
BH
(H) BVORTAC 114.4 BHM 127° 9.6 NM to Fld.
RBn H-SAB 224/BHM 178° 2.6 NM to Fld.
REMARKS: Glide slope unusable below 682'. VOT: 112.0

TSVILLE-MADISON CO. *IFR* 3 S FSS: MUSCLE SHOALS (DL)
619 H52/18-36 (2) (S-50, T-85, TT-130) BL4, 6, 8A, 9 S5
F4, JP1, JP4 RVV: Rnwy 18
TOWER 119.7 122.5P 109.0T GND CON 121.9
APP CON 125.6 122.5R 109.0T
ILS[1] 109.3 I-HSV Apch Brg 178° LOM: 242/HS
HUNTSVILLE (L) BVOR 109.0 HSV 157° 6.4 NM to fld.
REMARKS: [1]Glide slope unusable below 657' ft MSL.

ILE
ATES FLD *IFR* 9 W FSS: MOBILE on Fld
217 H78/14-32 (3) (S-40, T-150, TT-280) BL4, 6, 8A, 9 S5
F5 JP1 U2 RVV: Rnwy 14
REMARKS: Threshold displaced 1000' NW rnwy 32
TOWER 118.3 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
MOBILE APP CON[1] 118.5 126.2 123.7 122.7R 115.3T 112.8T
MOBILE DEP CON 134.1 125.7
ILS 109.9 I-MOB Apch Brg 139° LOM: 248 MO
MOBILE (H) VORTAC 115.3/MOB 108° 6.3 NM to fld.
MOBILE RBn BH 248 MO 139° 4.5 NM to fld.
REMARKS: [1]APP CON unable to provide complete radar tfc advy svc fm BFM VORTAC 090° - 110° rad. ILS BC unusable BH inop

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TGOMERY
NNELLY FLD *IFR* 6 SW FSS: MONTGOMERY on Fld
221 H90/9-27 (3) (S-120, T-170, TT-300) BL4, 6, 8A, 9 S5
F4 JP1 U2 RVR: Rnwy 9
REMARKS: J-Bar rnwy 9-27. Restricted to acft heavier than Super G Constellation and DC-7 regardless of wt displacement per wheel.
TOWER 119.7 126.2 122.5R 109.9T
CLRNC DEL 121.9
GND CON 121.9
RADAR SERVICES: (BCN)
MONTGOMERY APP CON 121.1 126.2 122.7R 112.1T
MONTGOMERY DEP CON 125.5 124.0
TFC INFO Ctc Montgomery APP CON on 121.1 (Low) aprx 25 mi out.
ASR Rnwy 9, 27 Ceil 400 Vsby 1 mi Min Alt 621
LS[1] 109.9 I-MGM Apch Brg 093° LOM 245/MG
MONTGOMERY (H) BVORTAC 112.1/MGM 318° 5.6 NM to fld.

ALABAMA—Continued

MONTGOMERY (Continued)
REMARKS: [1]Lclzr crs indications unreliable beyond 080° from the front crs. ILS BC unusable

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ARIZONA

PHOENIX
SKY HARBOR MUNI *IFR* 3 E FSS: PHOENIX on Fld
1122 H103 8R-26L (2) (S-170, T-300, TT-595) BL4, 10 S5
F5 JP1 U2 VASI: Rnwy 8R
PHOENIX TOWER 118.7 126.2 122.5R 120.9 278T
CLRNC DEL 120.4 PHOENIX GND CON 121.9
PHOENIX APP CON 118.1 126.2 122.5R 115.6T
PHOENIX (H) BVORTAC 115.6 PHX 256° 5.3 NM to fld.
PHOENIX RBn BHZ 326 PHX 264° 1.5 NM to fld.
REMARKS: VOT: 109.0

TUCSON INTL *IFR* 6 S AOE FSS: TUCSON on Fld
2630 H120/12L-30R (3) (S-100, T-200, TT-360) BL4 S5
FS, JP1, JP4 U2
REMARKS: 5649 ft avbl lndg rnwy 3, 6000 ft avbl rnwy 21.
TOWER 118.3 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.5 134.1 126.2 125.9 125.1 122.5R
DEP CON 125.9 TFC INFO ctc APP CON 25 mi out.
ASR Rnwy 12, 30 Ceil 400 Vsby 1 mi Min Alt 3030.
(H) BVORTAC 117.1 TUS 254° 6.1 NM to fld.
RBn H-SABZ 338 TUS 083° 10.6 NM to fld.

YUMA MCAS INTL *IFR* 3 S AOE FSS: YUMA
213 H133 (3L-21R) (4) (S-103, T-225, TT-410) BL4, 6
S5 F4
TOWER 126.2 121.5 122.5R 119.1
(H) BVORTAC 116.8 YUM 167° 6.0 nmi to fld.
RBn MHW 344 NYL at fld.
REMARKS: Rnwy 17-35 GWT (S-170, T-200, TT-400)

ARKANSAS

FORT SMITH MUNI *IFR* 4 SE FSS: FORT SMITH on Fld
468 80H/7-25 (2) (S-90, T-120, TT-) BL4, 6, 8A, 9 S5
F-5, JP-1 U2 RVV: Rnwy 25
TOWER 118.3 126.2 122.5R GND CON 121.9
APP CON 125.4 126.2 118.3 110.4T 109.5T 311T
ILS 109.5 I-FSM Apch Brg 253° LOM: 223/FS
(L) BVORTAC 110.4/FSM 225° 5.2 NM to fld.
RBn BMH 311/FSM 160° 9.8 NM to fld.
RBn HW 223/FS 253 6.9 NM to fld.
REMARKS: LOM is HW. BC unusable

HOT SPRINGS
MEMORIAL FLD *IFR* 3 SW FSS: PINE BLUFF (LC NA 4-4481)
535 H50/5-23 (2) (S-30, T-40, TT-) BL4 S5 F4
TOWER 120.3 122.5R 110.0T 248T GND CON 121.7
HOT SPRINGS APP CON 120.3 122.5R 110.0T 248T
HOT SPRINGS (L) VOR 110.0/HOT on fld.
HOT SPRINGS RBn MHW 385/HOT 061° 4.1 NM to fld.

ARKANSAS—Continued

LITTLE ROCK

ADAMS FLD *IFR* 2E FSS: PINE BLUFF (LC FR 5-2790)
257 H70/4-22 (3) (S-90, T-180, TT-) BL4, 6, 8A, 9 S5
F4, JP1, JP4 U2 RVV: Rnwy 4
TOWER 118.7 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
LITTLE ROCK APP CON 119.5[3] 126.2 124.2[2] 122.5R 113.9T
LITTLE ROCK DEP CON 118.1
TFC INFO All inbnd acft etc APP CON 25 mi out.
ASR[1] Rnwy 4, 22, 32, 35 Ceil 500 Vsby 1 mi Min Alt 757.
ILS 110.3 I-LIT Apch Brg 040° LOM: 219/LI
LITTLE ROCK (H) BVORTAC 113.9/LIT 314° 38 NM to fld.
LITTLE ROCK RBn BH 353/LIT 315° 313 NM to fld.
REMARKS: [1]ASR Apch not auth rnwy 17 and 14. [2]001-180° [3]181-360°

CALIFORNIA

ARCATA

ARCATA-EUREKA *IFR* 7 NW FSS: ARCATA on Fld
217 H60(2) (13-31) BL5, 6, 8A, 9, 10 F4
VASI: Rnwy 13
REMARKS: Rgt tfc rnwys 13, 19.
VHF/DF[2]
ILS[1] 109.5 I-ACV Apch Brg 314° LOM: 257/AC
RBn SBMH 233/CV 314° 0.6 NM to fld.
REMARKS: [1]LMM unusable btn 120-150° beyond 5 nmi. [2]Coverage 030-060° 30 nmi at 8000'; 060-120° 30 nmi at 10,000' MSL.

BAKERSFIELD

MEADOWS FIELD *IFR* 4 NW FSS: BAKERSFIELD on Fld
488 H57/12L-30R (2) (S-110, T-170, TT-300) BL4, 6, 8A
S5 F5, JP1 U2 RVV: Rnwy 30R
TOWER 118.1 126.2 122.5R 227T
GND CON 121.9 BAKERSFIELD APP CON 118.8 126.2 115.4T BAKERSFIELD DEP CON 118.9
ILS 109.9 I-BFL Apch Brg 299° LOM: 278/BF
BAKERSFIELD (H) BVORTAC 115.4/BFL 131° 3.4 NM to fld.
BAKERSFIELD Rbg SBMRAZ 239/BC 150° 1.3 NM to fld.

BURBANK

FSS: LOS ANGELES (DL)

LOCKHEED AIR TERMINAL *IFR* 3 NW
775 H69/15-33 (2) (S-80, T-150, TT-280) BL5, 6, 8A, 9, 11
S5 F5, JP1, 4 U2 RVV: Rnwy 7 REIL rnwy 15
REMARKS: Rnwy 15 displaced threshold 900 ft. S 6060 ft avbl lndg rnwy 15 tk off rnwy 33. Rnwy 33 displaced threshold 410 ft N. 6550 lndg rnwy 33, tkof rnwy 15. Rgt tfc rnwy 7, 15. Rnwy 15-33 lgtd N of rnwy 7-25 only.
BURBANK TOWER 118.7 126.2 122.7R
CLRNC DEL 118.0 BURBANK GND CON 121.9
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
TFC INFO Ctc Burbank A/C on 120.9 30 mi out.
ASR Rnwy 7 Ceil 500 Vsby 1 mi Min Alt 1275.
ILS [2]109.5 I-BUR Apch Brg 076° LOM: 272/BU
VHF/DF[1] available, contact Tower.
REMARKS: [1]Unusable beyond 30 NM below 13,000' 360°-085°; below 4000' 085°-240°; below 6000' 240°-320°; below 10,000 320°-360°. [2]Glide slope unusable below 1075' MSL.
VOT: 110.0

CALIFORNIA—Continued

CONCORD

BUCHANAN FIELD 2 NW FSS: OAKLAND [illegible]
19 H50/1-19 (3) (S-60, T-80, TT-130) BL4 S5 F4
TOWER[1] 119.7 122.4R 326T GND CON 121.9
REMARKS: [1]Tower operates 1500Z-0700Z

FRESNO AIR TERMINAL *IFR* 5 NE FSS: FRESNO on Fld
332 H92/11-29 (3) (S-50, T-70, TT-140) BL4, 6, 8A, [illegible] S5
F4, JP1, JP4 RVV: Rnwys 11, 29
REMARKS: Rgt tfc rnwy 7 & 11
TOWER 118.7 126.2 122.7R 251T 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.6 126.9
DEP CON 126.9
ILS 110.3 I-FAT Apch Brg 288° LOM: 266 FA
(H) BVORTAC 112.9/FAT 133° 7.1 NM to fld.
RBn H-SAB 344/FAT 048° 6.2 NM to fld.

FRESNO-CHANDLER *IFR* 2 W FSS: FRESNO [illegible]
283 H32/11L-29R (1) (S170 T-TT-) BL4, 6, 8A S5 F4
U2
REMARKS: Arpt clsd to all tfc btn 11 pm to SR. [1]Arpt clsd to acft weighing in excess of 12500 lbs. Rgt tfc rnwy 11L
CHANDLER TOWER [1]121.1 122.5R 278T
CHANDLER GND CON 121.7
RADAR SERVICES: (BCN)
FRESNO APP CON 119.6 126.9
FRESNO DEP CON 126.9
REMARKS: [1]Oper 1400-0600Z.

FULLERTON MUNI *IFR* 3 W FSS: LOS ANGELES [illegible]
96 H28/6-24 (1) (Max. 8) BL4, 11 S5 F4 U2
TPA: 24R 1200 REIL rnwy 24
REMARKS: Rnwy 6 displaced threshold 437 ft E. 2650 ft avbl lndg rnwy 6. Rnwy 24 displaced threshold 263 ft W. [illegible] avbl lndg rnwy 24. Rnwy 24 apch restricted by pole/tree glide angle 13 to 1. Rgt tfc rnwy 24. Entry alt 1200 ft MSL.
TOWER[1] 119.1 122.6R GND CON 121.7
RADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
REMARKS: [1]Opers 0600-2200 daily.

HAWTHORNE MUNI *IFR* 1 E FSS: LOS ANGELES [illegible]
64 H45/7-25 (1) (S-30, T-40, TT-) BL4, 11 S-5 F4 [illegible]
REIL rnwy 25.
REMARKS: Rnwy 7 displaced threshold 1025 ft E. 3975 ft avbl lndg rnwy 7. Runwy 25 displaced threshold 475 ft W. 4525 ft avbl lndg rnwy 25. Prior apvl reqd for single eng acft 1000 HP or more. Rnwy 25 apch restricted by pole/tree Angle 12 to 1. Rgt tfc E.
TOWER[1] 121.1 122.5R GND CON 121.9
RADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 124.3[2] 125.2[3]
REMARKS: [1]Oper 1500-0700Z. [2]045°-224°. [3]225°-044°.

CALIFORNIA—Continued

'ARD AIR TRML *IFR* 2 SW FSS: OAKLAND (LC 638-5714)
6 H52/ 10R-28L (2) (S-100, T-1 90, TT-290) BL4 S5 F4
OWER 118.9 126.2 122.5R 212T GND CON 121.7
ADAR SERVICES:
OAKLAND APP CON 118.1 126.2 116.8T
OAKLAND DEP CON 124.7 120.9 116.8T
Bn MHW 242 HWD 112° 4.0 NM to fld.

BEACH *IFR* 3 NE FSS: LOS ANGELES (DL)
NG BEACH (Daugherty Fld)
8 H100 12-30 (5) (S-90, T140, TT-240) BL4, 6, 8A, 10, 11
5 F5, JP1, 4 U2
EMARKS: Due non-vsby on some portions of arpt ctc twr. All itinerant acft ctc Long Beach apch ctl regardless of wea, call at least 20 mi fm arpt. Rgt tfc rnwys 7R, 16R, 25R, 25R, 30R.
ONG BEACH TOWER 119.5[1] [2]120.5 126.2 122.4R 242T
LONG BEACH GND CON 121.9
ADAR SERVICES:
LONG BEACH APP CON 124.2 135.8 110.3T
LONG BEACH DEP CON 127.2
ASR Rnwys 7L, 12, 16R, 25R, 30 Ceil 500 Vsby 1 mi Min Alt 558
.S[3] 110.3 I-LGB Apch Brg 300° LOM 233 LG
VHF/DF available, contact Tower.
ONG BEACH (L) BVORTAC 115.7 LGB 274° 4.4 NM to fld
EMARKS: [1]119.5 for all left rnwys. [2]120.5 for all right rnwys. [3]Glide slope unusable below 300' VOT: 109.0

NGELES INTL *IFR* 9 SW FSS: LOS ANGELES on Fld
26 H120/7R-25L (4) (S-150, T-200, TT-400) BL4, 6, 8A, 0, 11 SS F5, JP1, 4 U2 VASI: Rnwy 7R
RVV: Rnwys 6, 24, 7R/L RVR: Rnwy 25 REIL rnwy 7R
EMARKS: Rnwy 34 threshold displaced 1679 ft N. Rnwys 25L and 25R thresholds displaced 600 ft W.
OWER 118.9 125.8 123.7[4] 122.7R
CLRNC DEL 118.6 126.85 121.4 GND CON 121.8
ADAR SERVICES:
APP CON 124.9[2] 119.3[3] 113.6T 109.9T
DEP CON 125.2[3] 124.3[2]
TFC INFO ctc APP CON 30 mi out.
PAR Rnwy 25R Ceil 300 Vsby 3/4 mi Min alt 426 Rnwy 25L Ceil 200 Vsby ½ mi Min alt 326
S[5] 109.9 I-LAX Apch Brg 248° LOM: 266/LA
IF DF avail, ctc twr.
) BVORTAC 113.6/LAX at fld.
3n H-SAB 332/LAX 245° 3.4 NM to fld.
EMARKS: [1]Heli Operns. [2]045-224° [3]255-044° [4]Glide ope unusable below 300 ft MSL. VOT: 112.0

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NGELES (VAN NUYS)
NUYS *IFR* 3 NW FSS: LOS ANGELES (DL)
0 H80/16R-34L (2) (S-50, T-70, TT-100) BL4, 11 S-5
1, JP4, 5 U2 REIL: Rnwy 16
EMARKS: Rnwy 16R threshold displaced 1376 ft S. 6624 ft avbl indg rnwy 16R. Rnwy 16L-34R daylgt use only. Rnwy 16L threshold displaced 1432 ft S. 2568 ft avbl indg rnwy 16L. Parallel 2000 ft strip bet 16L-34R and 16R-34L clsd except emerg.
OWER 120.1 126.2 122.5R GND CON 121.7
ADAR SERVICES:
BURBANK APP CON 120.9 127.5 122.7R
BURBANK DEP CON 118.4
EMARKS: VOT: 109.0

CALIFORNIA—Continued

MONTEREY PENINSULA *IFR* 3 SE FSS: SALINAS (DL)
220 H50. 10-28 (2) (S-40, T-70, TT-120) BL4, 6, 8A, 9 S5
F5, JP1 U2
REMARKS: Rnwy 28 has downgrade 1 ½ percent. Lndg acft non-reversible props ctn during hours of darkness
MONTEREY TOWER 119.9 122.5R 281T
MONTEREY GND CON 121.9
MONTEREY APP CON 120.8
MONTEREY DEP CON 120.8
ILS[1] 110.1 I-MRY Apch Brg 096° LOM: 281 MR
REMARKS: [1]Unusable btn LMM and apch end rnwy. Mar 15 lclzr and glide slope rnwy 10 will be shutdown until Mar 26. BC unusable.

OAKLAND
METROPOLITAN-OAKLAND INTL *IFR* 4 S
FSS: OAKLAND on Fld
6 H100. 11-29 (4) (S-100, T-160, T-290) BL6, 8A, 9 14, 15
S5 F5, TF1, JP4 U2 RVV: Rnwy 27R RVR: Rnwy 29
REMARKS: Due non-vis of some areas ctc twr for instr. Rnwy 33 threshold displaced 2113 ft N. Rgt tfc rnwys 27R, 27L, 33 & 11.
OAKLAND TOWER 118.3 126.2 126.0 116.8T
CLRNC DEL 126.6 121.1
OAKLAND GND CON 121.9 121.6
RADAR SERVICES:
OAKLAND APP CON [1]118.1 116.8T [2]120.9
OAKLAND DEP CON 124.7
TFC INFO Coll APP CON 25 mi out.
PAR Rnwy 29 Ceil 200 Vsby ½ mi Min Alt 206
ASR Rnwy 9L, 11, 27R, 29 Ceil 400 Vsby 1 mi Min Alt 406
ILS 108.7 I-INB Apch Brg 293° 109.9 I-OAK Apch Brg 275° BC unusable LOM: 266 IN
VHF DF[3] available, contact Tower.
REMARKS: [1]271-089° [2]090-270° [3]Unusable below 6000' MSL 360-050°, beyond 20 nmi. VOT: 110.2
OAKLAND (H) BVORTAC 116.8 OAK 095° 1.3 NM to fld.
OAKLAND RBn[4] H-SAB 362/OAK on fld.
REMARKS: [4]Unusable beyond 25 NM 094° - 124°.

ONTARIO INTL *IFR* 2 E FSS: ONTARIO on Fld
952 H100/7-25 (2) (S80, T120 TT220) BL6, 8A, 9 S5
F5, JP1, 4 U2 RVV: Rnwy 25
REMARKS: Rnwy 7 threshold displaced 1000 ft E. 1000 ft overrun E end rnwy 7-25.
TOWER 118.5 126.2 122.5R CLRNC DEL 123.6
GND CON 121.9
RADAR SERVICES: (BCN)
MARCH APP CON 120.8 122.5R 111.4T
MARCH DEP CON 125.5 122.5R
ILS 109.7 I-ONT Apch Brg 255° LOM: 227/OM
(H) BVOR[1] 117.0/ONT 341° 7.0 NM to fld.
REMARKS: [1]Unusable below 14,500 MSL beyond 40 NM 200° clockwise to 140°

OXNARD
VENTURA COUNTY *IFR* 1 W FSS: SANTA BARBARA (DL)
43 H59/7-25 (1) (S-100, T-135, TT-) BL4, 11 S5 F4, JP4
REIL rnwy 25.
REMARKS: Rnwy 25 Threshold Displaced 1377 ft W. 4570 ft avbl indg rnwy 25. Rnwy 7 Threshold 750 ft E. 5197 ft avbl indg rnwy 7.
TOWER 120.7 122.4 GND CON 121.9
APP CON 124.7 122.5R
VENTURA (L) BVOR 108.2/VTU

CALIFORNIA—Continued

SACRAMENTO MUNI *IFR* 3 SW FSS: SACRAMENTO on Fld
21 H60/2-20 (3) (S-90, T-120, TT-180) BL4, 6, 12 S5 F5, JP4 U2 RVV: Rnwy 2
REMARKS: Rnwy 16 apch restricted by antenna-glide angle 12 to 1. 2500' apch lgtg.
TOWER 119.5 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1 [1]134.1 123.6 [2]122.5R
DEP CON 124.5
ILS 110.3 I-SAC Apch Brg 015°
(H) BVORTAC 115.2/SAC 015° 4.4 NM to fld.
REMARKS: [1]Below 5000'. [2]5000' or above.

SAN DIEGO CO-GILLESPIE FIELD 10 NE
FSS: SAN DIEGO (LC 296-3181)
385 H53/9-27 (2) (S-60, T-80, TT) BL4 S5 F4 U2
REMARKS: Rnwy 27 threshold displaced 1300 ft W. 4040 ft avbl lndg rnwy 27. Rnwy 17-35 restricted to acft under 12,500 lbs gwt.
GILLESPIE TOWER[1] 120.7 122.7R 379T
GILLESPIE GND CON 121.7
REMARKS: [1]Tower operates 1400-0600Z

SAN DIEGO INTL-LINDBERGH FLD *IFR* 2 W
FSS: SAN DIEGO on Fld
AOE
15 H87/9-27 (2) (S-100, T-200, TT-400) BL5, 6, 8A, 9, 11 S-5 F5, JP1 U2 REIL: Rnwy 27
REMARKS: Rnwy 27 threshold displaced 600 ft W. 8100 ft avbl lndg rnwy 27. Rnwy 31 apch restricted by poleline-glide angle 5 to 1.
TOWER 118.3 126.2 122.5R 109.6T 245T[5]
GND CON 121.9
RADAR SERVICES: (BCN)
SAN DIEGO APP CON 119.6 127.7 126.2 125.7[1] 125.3[2] 122.7R 218T
SAN DIEGO DEP CON 125.7[3] 125.3[4]
TFC INFO Contact A/C over Oceanside, Jamul, Mexico Border or 20 NM West.
ASR Rnwy 9 Ceil 700 Vsby 2 mi Min Alt 715
ILS 110.9 I-SAN Apch Brg 091° LOM: 278/SA
LINDBERGH (L) BVOR 109.6/LIF on fld.
REMARKS: [1]East arrival. [2]West/Northwest arrival. [3]East departure. [4]West/Northwest departure. [5]To be decomsnd March 25. VOT: 109.0

SAN FRANCISCO INTL *IFR* 8 SE FSS: OAKLAND (DL)
10 H97(10L-28R) (4) (S-200, T-200, TT-400) BL6, 8A, 9 10, 11, 12 S-5 F5, JP1 U2 VASI: Rnwy 19L RVV: Rnwys 1, 19 RVR: Rnwy 28R
REMARKS: Ctc twr for preferential rnwy system under VFR conditions. Rnwy 28R displaced threshold 200 ft NW. 9496 ft avbl lndg rnwy 28R. Rnwy 1R displaced threshold 1100 ft NE. 8400 ft avbl lndg rnwy 1R. REIL N end rnwy 19L and E end rnwy 28L inop. Ctc twr for taxiing instr.
TOWER 120.5 126.2X 122.7R 121.4
GND CON 121.8
RADAR SERVICES:
APP CON 124.9[1] 126.2X 119.3[2] 111.2T 109.5T
DEP CON 124.4 128.5
PAR Rnwy 28L Ceil 300 Vsby 3/4 mi Min Alt 310.
Rnwy 28R Ceil 200 Vsby 1/2 mi Min Alt 210.
ASR Rnwys 19L, 19R Ceil 500 Vsby 1 mi Min Alt 510.
Rnwys 28L, 28R Ceil 400 Vsby 1 mi Min Alt 410.
ILS 109.5 I-SFO Apch Brg 281° LOM: 379/SF

CALIFORNIA—Continued

SAN FRANCISCO (Continued)
VHF/DF available, contact tower.
(L) VOR 111.2/SFO at fld.
RBn MHW 275/SIA at fld.
REMARKS: [1]315°-134°, [2]135°-314°, PAR svc not avbl to Rnwy 28L UFN. VOT: 111.0

SAN JOSE MUNI *IFR* 2 NW FSS: OAKLAND [illegible]
56 H78/12R-30L (2) (S-60, T-90, TT-) BL 6, 8A, 9 S5 F4, JP1 U2 RVV: Rnwy 30L
REMARKS: Rnwy 30L threshold displaced 1475 ft NW. 6312 ft avbl lndg rnwy 30L. Twr unable to see txwy A and NE [illegible] patn.
TOWER 120.7 122.4R 248T GND CON [illegible]
RADAR SERVICES: (BCN)
MOFFETT APP CON 120.1 123.7 122.4R 110.9T [illegible]
MOFFETT DEP CON 121.3 122.4R 108.2T
TFC INFO Ctc Moffett APP CON on 120.1 25 mi out.
ASR Rnwy 30L Ceil 600 Vsby 1 mi Min Alt 656. R-[illegible] 12R Ceil 400 Vsby 1 mi Min Alt 456.
ILS 110.9 I-SJC Apch Brg 302°
(L) VOR 108.2/SCC on fld.

SANTA ANA
ORANGE COUNTY *IFR* 4 S FSS: LOS ANGELES [illegible]
53 H49/1L-19R (2) (S-30, T-40, TT) BL4, 6 S-5 F4 U2
REMARKS: Limited itinerant parking.
TOWER[1] 119.9 122.5R GND CON [illegible]
RADAR SERVICES: (BCN)
EL TORO APP CON 121.3 134.1 124.1X 122.5R [illegible]
EL TORO DEP CON 121.3
SANTA ANA (L) VOR 108.8/SNA 192° 0.3 NM to fld.
REMARKS: [1]Operates 0600-2300

SANTA BARBARA MUNI *IFR* 7 W FSS: SANTA BARBARA [illegible]
14 H47/7-25 (3) (S-40, T-71, TT-117) BL4, 6, 8A, 9 S5 F5, JP5, U2 RVV: Rnwy 7
REMARKS: Apch lgts 2900 ft long. Rnwy 25 overrun unlgtd. Rnwy 25 threshold displaced 296 ft W 4420 ft avbl lndg rnwy 25.
TOWER 119.7 122.7R 110.3T 338T GND CON [illegible]
APP CON 125.4
ILS[1] 110.3 I-SBA Apch Brg 073° LMM: 338'BA
(H) BVORTAC 114.9/SBA 198° 5.6 NM to fld
REMARKS: [1]LMM unusable beyond 2 nmi 289-048°.

SANTA MONICA MUNI *IFR* 3 E FSS: LOS ANGELES [illegible]
175 H50/3-21 (1) (S-90, T-120, TT-) BL4, 10 11 S5 [illegible] JPS U2 REIL: rnwy 21 VASI: rnwy 21
REMARKS: Single eng acft of 1000 or more horsepower prohibited except by prior apvl. Gen avia fee after free [illegible] 6 hrs. Rgt tfc rnwy 3.
TOWER[3] 120.3 122.6R GND CON [illegible]
RADAR SERVICES:
LOS ANGELES APP CON 124.9[1] 119.3[2] 113.6T [illegible]
LOS ANGELES DEP CON 124.3[1] 125.2[2]
REMARKS: [1]045°-224°, [2]225°-044° VOT: 110.2 [illegible] 0700-2300 VOT: 110.2
(L) VOR 110.8/SMO at fld.
REMARKS: VOR unusable beyond 40 NM below 11,000 MSL 050°-265°. Not certified within warning area 289.

CALIFORNIA—Continued

TA ROSA
INOMA COUNTY *IFR* 6 NW FSS: UKIAH (DL)
:25 H50/1-19 (2) (S-80, T-130, TT-220) BL4 S5 F4
U2
TOWER[1] 118.5 122.5R GND CON 121.9
L) VOR 109.4 STS at fld.
REMARKS: [1]Operates 1400-0600Z

CKTON METROPOLITAN *IFR* 3 S FSS: STOCKTON on Fld
27 H86 11 L-29R (4) (S-100, T-200, TT-400) BL6 S5
F4, TF1
TOWER 120.3 122.5R 230T[1] GND CON 121.9
RADAR SERVICES:
APP CON 125.1 116.0T 109.1T
LS 109.1 I-SCK Apch Brg 291° LOM: 271/SC
STOCKTON (H) BVORTAC 116.0/SCK 304° 4.0 NM to fld.
REMARKS: BC unusable

DE VALLEY
KE TAHOE 2 SE FSS: SACRAMENTO (DL)
263 H85(1) BL4 F4 U-1
RE! ARKS: Surrounded by mtns. Tiedowns avbl.
TOWER: 119.0 122.5R GND CON: 121.9
TAHOE VALLEY (L) BVOR 113.2/LTA

RANCE MUNI *IFR* 3 SW FSS: LOS ANGELES (DL)
31 H50/11L-29R (2) (S-30, T-50, TT-80) BL4 S5 F4
:2 TPA: 29R 800
REMARKS: Both ends rnwy 11L-29R displaced thresholds 550 ft. 4450 ft avbl lndg both directions rnwy 11L-29R. Rnwy 11R-29L open 6 am to 10 pm. Rnwy 11L-29R and perimeter txwy only lgtd 10 pm to 6 am.
OWER[1] 118.1 122.5R GND CON 121.7
ADAR SERVICES:
LOS ANGELES APP CON 124.9[2] 119.3[3]
LOS ANGELES DEP CON 125.2[3] 124.3[2]
LONG BEACH DEP CON 127.2
EMARKS: [1]Tower oper 0600-2200 lcl time daily. [2]045°-224°. [3]225°-044°.

COLORADO

RADO SPRINGS
ERSON FIELD *IFR* 6 SE FSS: DENVER (LC ME4-3127)
72 H110/17-35 (3) (S-125, T-200, TT-400) BL4, 6, 8 S5
i, JP1, 4 RVR: Rnwy 35
)WER 119.9 126.2 122.5R GND CON 121.7
ADAR SERVICES:
COLORADO SPRINGS APP CON 118.5 126.2 122.5R 109.9T
COLORADO SPRINGS DEP CON 120.2
TFC INFO Ctc APP CON 20 mi out.
PAR Rnwy 35 Ceil 200 Vsby 1/2 mi Min Alt 6372
ASR Rnwys 21, 30, 35 Ceil 500 Vsby 1 mi Min Alt 6672
S[1] 109.9 I-COS Apch Brg 346° COLORADO SPRINGS
OM: 407/CO
LORADO SPRINGS (L) BVORTAC 112.5/COS 191° 9 NM
o fld.
LORADO SPRINGS RBn MHW 407/CO 346° 3.3 NM to fld.
F/DF[2] available, contact tower.
MARKS: 1 Glide slope unusable MM to touchdown. 2 Coverage 30 nmi at MEA except 24 nmi 340-055° and 15 nmi 245-270° from facil.

COLORADO—Continued

DENVER
STAPLETON INTL *IFR* 4 E FSS: DENVER on Fld
5331 H115, 17-35 (4) (S-120, T-200, TT-350) BL4, 6, 8, 9, 10, 11, 14, 15 S5 F5, JP1 U2 VASI: Rnwys 8R, 17
RVV: Rnwy 35 RVR: Rnwy 26L REIL: Rnwy 17
REMARKS: Twr unable to determine whether acft are on correct final apch to rnwys 8L-26R and 8R-26L.
TOWER 118.3 126.2 119.3 122.5R
GND CON 121.9 121.7
RADAR SERVICES:
DENVER APP CON 119.5[1] 126.2 122.5R 120.5[2] 116.3T 110.3T 108.1T
DENVER DEP CON 124.8
TFC INFO Ctc APP CON 20 m. out.
ASR Rnwys 17, 26L, 35 Ceil 500 Vsby 1 mi Min Alt 5831
ILS 110.3 I-DEN Apch Brg 256° 108.1 I-SPO Apch Brg 349° LOM: 362/DE
VHF DF available contact tower.
DENVER (H) BVORTAC 116.3 DEN 213° 8.1 NM to fld.
DENVER RBn H-SAB 379 DEN 142° 1.4 NM to fld.
REMARKS: [1]270°-089°. [2]090°-269°. VOT: 111.0

GRAND JUNCTION
WALKER FIELD *IFR* 3 NE FSS: GRAND JUNCTION on Fld
4857 H54/11-29 (2) (S-60, T-80, TT-120) BL2, 4, 6, 11, 12
S5 F4 JP1 TP1 U2 REIL: rnwy 29
TOWER 118.1 122.5R GND CON 121.9
GRAND JUNCTION APP CON 119.7 122.5R 112.4T 110.3T
ILS[1] 110.3 I-GJT Apch Brg 110°
GRAND JUNCTION (H) BVORTAC 112.4/GJT 061° 13.0 NM to fld.
GRAND JUNCTION RBn MHW 396/GJT 110° 9.6 NM to fld.
REMARKS: Glide slope unusable 5158' and from 3/4 nmi to rnwy threshold.

PUEBLO MEML *IFR* 5 E (248° 2.4 NM from PUB VOR)
4725 H85/7-25 (3) (S-90, T-129, TT-216) BL4, 6, 8A, 9 S5
F5 RVV: Rnwy 7 FSS: PUEBLO on Fld
TOWER 119.1 126.2 122.5R GND CON 121.9
APP CON 120.1 126.2 119.1 116.7T
ILS 109.5 I-PUB Apch Brg 075° LOM: 302/PU
(H) BVORTAC 116.7/PUB 248° 2.4 NM to fld.
RBn MHW 373/PCX 225° 6 NM to fld.

CONNECTICUT

BRIDGEPORT MUNI *IFR* 3 SE
FSS: WINDSOR LOCKS (LC ED 5-6097)
9 H47/11-29 (3) (S-35, T-45, TT-) BL5, 6 S5 F5, JP1, 4 U2
REMARKS: Apch to rnwys 16, 29 blkd by trees.
TOWER 120.9 122.5R 108.8T GND CON 121.9
WESTCHESTER APP CON 121.2 122.5R 3023.5RX
(L) VOR 108.8/BDR on fld.

CONNECTICUT—*Continued*

EAST HARTFORD

RENTSCHLER FIELD *IFR* 1 E FSS: WINDSOR LOCKS (DL)
48 H54/18-36 (3) (S-46, T-75, TT-130) BL5, 11 S5 F5
REIL: Rnwys 4, 18, 22, 32, 36
REMARKS: Clsd to public. US Customs-Indg rights arpt. Rnwy 18 apch restricted by poleline-glide angle 8 to 1. Attended 7am to midnite.
TOWER 119.9 126.2 GND CON 121.7
RADAR SERVICES:
BRADLEY APP CON 119.4 124.6 122.5R
BRADLEY DEP CON 125.35
HARTFORD (L) BVOR 114.9/HFD 347° 7.0 NM to fld
HARTFORD RBn SBMHZ 329/HFD 009° 1.9 NM to fld.
REMARKS: [1]Twr oper 0200-1800Z

WINDSOR LOCKS

BRADLEY FIELD *IFR* 3 W FSS: WINDSOR LOCKS on Fld
173 H95/6-24 (3) (S-100, T-200, TT-400) BL5, 6, 8A, 9 S5 F5, JP4, 5 U2
REMARKS: Rnwy 6-24 A-Gear both ends.
TOWER 120.3 126.2 122.5R GND CON 121.9
RADAR SERVICES:
APP CON 119.4 124.6 122.5R
DEP CON 125.35
ASR Rnwys 1, 19, 24, 33 Ceil 400 Vsby 1 mi Min Alt 573
ILS 110.3 I-BDL Apch Brg 058°
REMARKS: Glide slope rnwy 6 unusable below 373 ft.

DELAWARE

WILMINGTON

GREATER WILMINGTON *IFR* 4 S (EWT VOR on fld)
79 H70/1-19 (3) (S-200, T-300, TT-500) BL4, 6, 8A, 9 S5 F4, JP1 U2 FSS: MILLVILLE (LC 652-5419)
REMARKS: ILS apch zone rnwy 1 has penetrations in the 50:1 plane. Rnwy 5-23 clsd acft over 12, 500 lbs.
NEW CASTLE TOWER 120.3 122.5R 110.3T
NEW CASTLE GND CON 121.9
NEW CASTLE APP CON 125.0 110.3T
ILS 110.3 I-ILG Apch Brg 014° BC unusable LOM: 248/IL
NEW CASTLE (L) BVORTAC 114.0 EWT/067° 0.5 nmi to fld.
VHF/DF available, contact tower

DISTRICT OF COLUMBIA

WASHINGTON

DULLES INTL *IFR* 21 W FSS: WASHINGTON (DL)
313 H115/1L/19R (3) (S-200, T-290, TT-500) BL6, 8A, 9, 10, 14, 15 S5 F5, JP1, 5 U2 VASI: Rnwy 12
RVR: Rnwy 1R
TOWER 119.7 122.7R
CLRNC DEL 127.4 GND CON 121.65 121.9
RADAR SERVICES: (BCN)
APP CON 119.2 126.1
DEP CON 125.55
PAR Rnwy 1R Ceil 200 Vsby 1/2 mi Min Alt 513
ASR Rnwys 1R, 1L 12, 19R 19L, 30 Ceil 400 Vsby 1 mi Min Alt 713
ILS 111.3 I-DLX Apch Brg 186 109.3 I-DIA Apch Brg 006° LOM: 346/DI
POOLESVILLE RBn (MHW) 280/PVL 186° 7.3 nmi to fld.

DISTRICT OF COLUMBIA—*Continued*

WASHINGTON NATIONAL *IFR* 3 S FSS: WASHINGTON on F
15 H69/18-36 (3) (S-100, T-200, TT-400) BL4, 6, 8A, 9, 11, 14, 15 S5 F5, JP1 U2 VASI: Rwy 15
RVV: Rnwys 18/15 RVR: Rnwy 36
REMARKS: No acft over 120,000 lbs w/o prior apvl. Very limited parking.
TOWER 119.1[1] 122.5R
CLRNC DEL 127.7 GND CON 12
RADAR SERVICES:
APP CON 120.8[2] 134.1[3] 127.0 122.5R 118.3[3] 10
3023.5R 278T
DEP CON 118.1[1] 126.55[2]
TFC INFO Ctc APP CON on 119.3 120.1
PAR Rnwy 36 Ceil 200 Vsby 1/2 mi Min Alt 215
ILS 109.9 I-DCA Apch Brg 003° LOM: WASHINGTON
332/DC BC unusable
VHF/DF available, contact tower
WASHINGTON (L) BVOR[4] 111.0/DCA at fld.
WASHINGTON RBn H-SAB 332/DC 001° 4.6 nmi to fld.
GEORGETOWN RBn MHW 323/GNT 144° 5.6 nmi to fld
REMARKS: [1]West [2]East [3]Andrews Sector. Circling. PAR on 15 min notice durg VFR wx conditions. VOT: 108.2
[4]VOR unusable beyond 30 nmi 010° - 045°; beyond 10 nmi 045° - 055°; beyond 15 nmi 055° - 070°; beyond 20 nmi 070° - 180°; beyond 32 nmi 340°.

FLORIDA

DAYTONA BEACH MUNI *IFR* 3 SW FSS: ORLANDO (LC25
34 H57/6-24 (3) (S-60, T-80, TT-) BL4, 6, 8A, 9 S5 F4, JP1 U2
TOWER 120.7 126.2 122.5R 353T GND CON
APP CON 123.9 122.5R 112.6T 109.7T
ILS 109.7 I-DAB Apch Brg 065° LOM: 263 DA
(L) BVOR 112.6/DAB 156° 7.4 NM to fld.

FT LAUDERDALE-HOLLYWOOD INTL *IFR* 3 SW
FSS: MIAMI (LC 524-
10 H74/9-27 (3) BL4 S5 F5, JP1 U2
REMARKS: Rnwy 9-27 thresholds displaced 600 ft both ends
FORT LAUDERDALE TOWER 119.3 122.5R 111.4T
FORT LAUDERDALE GND CON 121.7
RADAR SERVICES: (BCN)
MIAMI APP CON 123.9 119.7
MIAMI DEP CON 123.9 119.7
FT LAUDERDALE (L) VOR 111.4/FLL on fld.
FT LAUDERDALE RBn MHW 242/FLL 134° 4.5 NM to fld.

HOLLYWOOD

NORTH PERRY 5 W FSS: MIAMI (LC 524-
9 H31/4-22 (4) BL4 S5 F4
TOWER[1] 121.3 122.4R
REMARKS: [1]Oper 1200-0200Z daily. Oper by county.

JACKSONVILLE

IMESON *IFR* 5 N FSS: JACKSONVILLE on F
52 H79/5-23 (3) (S-105, T-137, TT-205) BL4, 6, 12 3
F5, JP4 U2 RVV: Rnwy 5
REMARKS: Caution on ILS apchs. Brightly lighted bridge 1 1/4 mi SW of apch end of rnwy 5 could give false impression of being a rnwy dur poor vis conditions. Rnwy 18-36 closed dalgt VFR opers. 1500' apch lgt sys rnwy 5. Rnwy 5 threshold displaced 410' E, rnwy 12 displaced 335' W.
JACKSONVILLE TOWER 118.3 126.2 122.5R 118.3T
JACKSONVILLE GND CON 121.9

FLORIDA—Continued

JACKSONVILLE (Continued)
RADAR SERVICES: (BCN)
JACKSONVILLE APP CON 119.0 126.2 122.5R 120.3 114.5T 110.3T
JACKSONVILLE DEP CON 124.9 126.2
TFC INFO Ctc APP CON on 119.0 25 mi out
ASR Rnwys 23, 27, 30 Ceil 400 Vsby 1 mi Min Alt 452. Rnwys 5, 9, 12 Ceil 500 Vsby 1 mi Min Alt 552
_S[1] 110.3 I-JAX Apch Brg 045° BC unusable
ACKSONVILLE (H) BVORTAC 114.5 JAX 250° 3.5 NM to fld.
ACKSONVILLE RBn H-SAB 344 JAX 270° 1.4 NM to fld.
HF DF available, contact tower
EMARKS: [1]Glide slope unusable below 150'.
VOT: 111.0

EST INTL *IFR* 2 E AOE FSS: KEY WEST on Fld
H48 9-27 (1) (S-30, T-40, TT-) BL4 S3 F4
EMARKS: Fee for commercial and hired acft only. Rgt tfc rnwy 9
OWER[1] 119.5 122.5R
GND CON 121.9 VFR ADV Ctc Key West rdo 0300-1100Z
NAVY KEY WEST APP CON 118.7 126.2 122.5R
1) BVOR 115.3 EYW 137° 1.7 NM to fld.
Bn SBH 332 EYW 065° 1.2 NM to fld.
EMARKS: [1]Oper 1100-0300Z

. CITY MUNI 3 E FSS: GAINESVILLE
02 H68 10-28 (5) B L F4 U1
OWER [1]126.2 122.8R
EMARKS: [1]Oper 1300-2130 Mon-Fri, Controls Military Traffic Only

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OURNE
IN F KENNEDY MEML *IFR* 2 NW FSS: MELBOURNE on Fld
2 H112 9-27 (3) (S-30, T-40, TT) BL4 S5 F4, JP5
EMARKS: 9603' rnwy 9-27 available ngts, displaced threshold rnwy 27 1589' W
ELBOURNE TOWER[1] 118.2 122.7R
ADAR SERVICES:
PATRICK APP CON 118.4
PATRICK DEP CON 118.4
ELBORNE (L) BVOR 109.8 MLB 007° 6.8 NM to fld.
ELBORNE RBn HW 257 MLB 087° 2.1 NM to fld.
EMARKS: [1]Oper 1145-0400Z daily

INTL *IFR* 8 NW AOE FSS: MIAMI on Fld
H105 9L-27R (4) (S-70, T-200 TT-400) BL4, 6, 8A, 9, 10
5 FS, JP1, 5 VASI: Rnwy 12 RVV: Rnwys 9L, 27L
EMARKS: Fee.
OWER 118.3 126.2 122.4R CLRNC DEL 127.5
GND CO:: 121.8
ADAR SERVICES: (BCN)
APP CON 118.1[1] 123.7[2] 122.4R
DEP CON 123.9 119.7
TFC INFO Ctc Twr 20 mi out or remain above 2500'.
ASR Rnwys 9L, 12, 27L, 27R Ceil 500 Vsby 1 mi Min Alt 509. Rnwys 9R, 30 Ceil 400 Vsby 1 mi Min Alt 409
_S 110.3 I-MFA [1]Apch Brg 086° 109.5 LOM: 384 MF
I-MIA 4 Apch Brg 266° LOM: 248 MI
HF DF available, contact Tower.
1) BVORTAC 115.9 MIA 138° 13.2 NM to fld.
Bn H-SAB 365 MIA 139° 10.3 NM to fld.
EMARKS: [1]090°-269° [2]270°-089°, 1400' MSL rgrd durg apch to rnwy 27L, 27R & 30 til within 4.5 mi of end of rnwy of centerline extended. [3]LOM unreliable beyond 15 nmi radius

FLORIDA—Continued

MIAMI (Continued)
[4]Glide slope rnwy 27 unusable below 175' MSL. VOT: 112.0

MIAMI
OPA LOCKA *IFR* 10 NW FSS: MIAMI (LC 634-7687)
9 H80 9L-27R (5) BL4, 6 S5 F5, JP1
REMARKS: Displaced thresholds all rnwys except 9L-27R. Birds in vcnty and on rnwys. 1045' TV twr 5 nmi NNE. JP-1 fuel avbl on 1 hr notice.
TOWER [1]120.7 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
MIAMI APP CON 123.7 118.1
MIAMI DEP CON 123.9 119.7
REMARKS: [1]Oper 1100-0300Z.

TAMIAMI 8 W FSS: MIAMI (LC 634-7687)
10 H38 14-32 (3) BL4 S5 F4
REMARKS: Rgt tfc rnwys 9, 14.
TOWER 121.1 122.6R GND CON 121.7
RADAR SERVICES:
MIAMI DEP CON 123.9[1] 119.7[2]
REMARKS: [1]270°-089° [2]090°-269°.

ORLANDO
HERNDON *IFR* 3 E FSS: ORLANDO on Fld
113 H60 7-25 (2) (S-60, T-80, TT) BL4, 6, 8A, 9 S5 F5, JP1 RVV: Rnwy 7
REMARKS: NW-SE rnwy NW lndg 5178' avbl, SE 5010' avbl.
TOWER 118.7 126.2 122.5R 112.2T 109.9T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
ORLANDO APP CON 119.4 124.8 122.5R
109.9T ORLANDO DEP CON 121.1
TFC INFO Ctc APP CON on 124.8 25 mi out.
ASR Rnwys 7,13 Ceil 500 vsby 1 mi Min Alt 613. Rnwys 25, 31 Ceil 400 vsby 1 mi Min Alt 513
ILS 109.9 I-ORL Apch Brg 066° LOM: 221/OR
(H) BVOR-DME 112.2 ORL on fld.

PENSACOLA MUNI *IFR* 3 NE FSS: PENSACOLA on Fld
118 H50 16-34 (2) (S-60, T-80, TT) BL4, 6, 8A, 9 S3 F4, JP1 U2 RVV: Rnwy 16
TOWER 119.9 126.2 122.5R 109.5T 326T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.9[1] 134.1 122.7R 120.1 119.0[2]
DEP CON 119.0[2] 134.1 123.9[1]
TFC INFO Ctc APP CON on 119.0 for acft Eastbound or arriving fm the East or on 123.9 for acft Westbound or arriving fm the West.
ILS 109.5 I-PNS Apch Brg 163° LOM: 400 PN
RBn H-SAB 326 PNS 343° 1.8 NM to fld.
REMARKS: [1]West [2]East

ST AUGUSTINE
FAIRCHILD - ST AUGUSTINE 3 N FSS: JACKSONVILLE (LC EL5 3601)
10 H65 13-31 (2) S5 F5
REMARKS: Rnwy 2-20 and 6-24 clsd to acft over 12,500 lbs when twr not in opern
TOWER[1] 126.2 123.1 122.5R
REMARKS: [1]Oper 1230-2115Z Mon-Fri

FLORIDA–*Continued*

ST PETERSBURG-CLEARWATER INTL *IFR* 8 N
FSS: TAMPA (DL)
10 H80/17-35 (3) (S-60, T-120, TT-240) BL4, 6, 8A, 9 S5
F5, JP4 U2 RVV: Rnwy 17
REMARKS: Rnwy 4-22 clsd to night ops UFN.
TOWER 118.3 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T
116.0T 108.4T TAMPA DEP CON 126.5
ILS[1] 109.1 I-PIE Apch Brg 170° LOM: 240/PI
ST PETERSBURG (L) BVOR 116.4/PIE at fld.
REMARKS: [1]Glide slope unusable below 110'.

SARASOTA - BRADENTON *IFR* 3 N FSS: TAMPA (DL)
24 H50/13-31 (3) (S-30, T-40, TT) BL4, 6 S5
F5, JP1 U2
REMARKS: Rnwy 9-27 and Txwy Btn Rnwys 31 & 32 clsd to acft in excess 12,500 lbs.
TOWER [1]120.1 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
TAMPA APP CON 119.5 125.3 122.5R 118.5 116.4T
108.4T TAMPA DEP CON 126.5
SARASOTA (L) BVOR 108.4/SRQ at fld.
REMARKS: [1]Oper 1100-0300Z.

TALLAHASSEE MUNI *IFR* 4 SW FSS: TALLAHASSEE on Fld
81 H61/18-36 (2) BL4, 6, 8A, 9 S5 F4, JP4 U2
RVV: Rnwy 36
TOWER 118.7 126.2 122.5R 117.5T 110.3T
CLRNC DEL 121.9 GND CON 121.9
APP CON 118.1 122.5R 117.5T 110.3T
DEP CON 118.1
ILS[1] 110.3 I-TLH Apch Brg 358°
(H) BVORTAC 117.5/TLH
RBn NH 379/TLH 140° 2.4 NM to fld.
REMARKS: [1]Lclzr unusable above 4000' MSL. VOT: 111.0

TAMPA INTL *IFR* 3 W AOE FSS: TAMPA on Fld
27 H83/18L-36R (3) (S-80 T-120, TT-270) BL4, 6, 8A, 9, 14
S3 F5, JP1, 4, 5 RVR: Rnwy 18L
REMARKS: Rnwys 18R and 36R clsd to lndgs of all acft over 12,500 Lbs Gwt.
TOWER 119.9 126.2 122.5R 110.3T
GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 119.5 125.3 122.5R 118.5 116.4T 108.4T
DEP CON 126.5
ILS[1] 110.3 I-TPA Apch Brg 181° LOM: 251/TP
RBn H-SAB 388/TPA 335° 4.9 NM to fld.
REMARKS: [1]Glide slope unusable below 150'. VOT: 111.0
LOM is H-SAB

WEST PALM BEACH
PALM BEACH INTL *IFR* 3 W AOE FSS: MIAMI (LC 832-5697)
19 H80/9-27 (2) (S-95, T-200, TT-350) BL4, 6, 8A, 9 S5
F5, JP4 RVV: Rnwy 9
REMARKS: Rgt tfc rnwys 9 and 13.
TOWER 119.1 126.2 122.7R 115.5T 109.3T 356T
GND CON 121.9
APP CON 118.0 122.7R 115.5T 109.3T 356T
ILS[1] 109.3 I-PBI Apch Brg 093° LOM: 282/PB
WEST PALM BEACH (H) BVORTAC 115.5/PBI 095° 2.8 nmi to fld.
WEST PALM BEACH RBn SBH 356/PBI 090° 1.9 nmi to fld.
REMARKS: [1]Glide slope unusable below 150'. VOT: 109.0

GEORGIA

ATLANTA MUNI *IFR* 7 SW FSS: ATLANTA [illegible]
1024 H88(15-33) (4) (S-120, T-, TT) BL5, 6, 8A, 9 [illegible]
F5, JP1 U2 VASI: Rwy 27R RVR: Rwy 9L
REMARKS: Aprxly 2100' of W end rnwy 9R-27L not visible from ctl twr.
TOWER 119.1 122.7R CLRNC DEL [illegible]
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 123.7[1] 118.1[2] 109.9T 109.3T
TERM CON 119.3 (S of V18N) 119.8 (N of V18N
DEP CON 125.7
TFC INFO Inbnd VFR acft ctc trial radar service 25 NM [illegible]
PAR Rnwy 9L Ceil 200 Vsby ½ mi Min Alt 1224.
ASR Rwys 3; 27L, 27R, 33 ceiling 400 vsby 1 mi min alt 1424. Rwys 9L, 9R, 15 ceiling 500 vsby 1 mi min alt [illegible]
ILS[3] 109.9 I-ATL Apch brng 089° BC unusable [illegible]
LOM: 375/AT
109.3 I-AZA Apch brng 329° BC unusable 110.5
LOM: 344/AZ
110.5 I-ALR Apch brng 089°
RBn H-SAB 388/TPA 335° 4.9 NM to fld.
(H) BVORTAC 115.6/ATL 016° 8.1 NM to fld.
RBn H-SAB 266/ATL 261° 5.3 NM to fld.
REMARKS: [1]270-089° [2]090-269° [3]Glide slope rnwy 33 unusable below 1085' MSL. VOT: 111.0

ATLANTA
DEKALB-PEACHTREE *IFR* 8 NE
FSS: ATLANTA (LC [illegible])
1002 H40/16-34 (3) (Max 60) BL4, 6, 8 S5 F4, JP4 [illegible]
REMARKS: Ctl twr unable to see first 850' rnwy 9.
PEACHTREE TOWER [1]121.3 122.5R
PEACHTREE GND CON 121.7
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
REMARKS [1]Oper 1200-0400Z.

FULTON COUNTY *IFR* 6 W FSS: ATLANTA [illegible]
834 H52/8-26 (2) (Max 22) BL4 S5 F5, JP4
TOWER 118.5 122.6R 245T GND CON [illegible]
RADAR SERVICES:
ATLANTA APP CON 120.5
ATLANTA DEP CON 120.5
VHF/DF available, contact Atlanta area radio.
(L) BVOR 108.2/FTY on fld.
RBn MH 245/FTY on fld.
REMARKS: All VOR radials except 220° - 280° unusable.

AUGUSTA
BUSH FIELD *IFR* 6 S FSS: AUGUSTA [illegible]
145 H80-17-35 (2) (S-90, T-120, TT) BL4, 6, 8A [illegible]
F5, JP1, 4 U2
AUGUSTA TOWER 118.7 126.2 122.5R 110.5T
AUGUSTA GND CON 121.9
AUGUSTA APP CON 125.4 122.5R 113.9T [illegible]
385T
ILS[1] 110.5 I-AGS Apch brng 348° BC unusable
LOM: 233/AG
AUGUSTA (H) BVORTAC 113.9/AGS 140° 12.7 NM to fld.
AUGUSTA RBn HW 385/AGS 166° 4.9 NM to fld.
REMARKS: [1]Glide slope unusable below 245' MSL.

GEORGIA—Continued

OLUMBUS
MUSCOGEE COUNTY *IFR* 4 NE FSS: ATLANTA (LC 322-6458)
397 H50 5-23 (2) (S-60, T-80, TT) BL4, 6 S5
F5, JP5 U2
REMARKS: Rnwy 12 clsd to ngt lndgs. Rnwy 30 clsd to ngt tkofs.
COLUMBUS TOWER 120.1 122.5R
COLUMBUS GND CON 121.9
COLUMBUS APP CON 125.3 122.5R 110.3T 335T
ILS' 110.3 I-CSG Apch brng 052° BC unusable
LOM: 391 CS
COLUMBUS (L) BVOR 117.1 CSG 147° 6.8 NM to fld.
COLUMBUS RBn SBH 335 CSG 022° 2.9 NM to fld.
REMARKS: 'Glide slope unusable below 697'.

ACON MUNI *IFR* 9 S FSS: MACON on Fld
354 H50 5-23 (2) (S-60, T-, TT) BL4, 6, 8A, 9 S3
F5, JP1 U2
TOWER 118.3 122.5R 109.5T GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 119.6 134.1 124.2 122.7R 114.2T 109.5T
DEP CON 124.8
ASR Rwys 5, 13, 23 ceiling 500 vsby 1 mi min alt 854.
ILS' 109.5 I-MCN Apch brng 047° LOM: 290 MC
(H) BVORTAC 114.2 MCN at fld.
VHF DF available, contact Macon FSS.
REMARKS: 'Glide slope unusable below 450' MSL. ILS BC unusable.

AVANNAH
TRAVIS FIELD *IFR* 7 NW FSS: SAVANNAH on Fld
50 H90 9-27 (3) (S36, T62, TT106) BL4, 6, 8A, 9 S5
F4, JP5 RVV: Rnwy 9
REMARKS: Rnwy 27 threshold displaced 400'. Rnwy 5-23 clsd all acft in excess 12,500' lbs GWT.
SAVANNAH TOWER 119.1 126.2 122.5R 110.1T
SAVANNAH GND CON 121.9
RADAR SERVICES: (BCN)
SAVANNAH APP CON 125.3 126.2 122.7R 121.1 112.7T 3023.5Rx
SAVANNAH DEP CON 125.7
ILS 109.9 I-SAV Apch brng 092° LOM: 368 SA
SAVANNAH (H) BVORTAC 112.7 SAV 246° 4.3 NM to fld.
REMARKS: VOT: 111.0

IDAHO

ISE AIR TERMINAL *IFR* 3 S FSS: BOISE on Fld
2858 H90(10R-28L) (2) (S100, T-185, TT-300) BL4, 6, 8A, 9
S5 F5, JP1, 4 U2 RVV: Rnwy 10L
REMARKS: Rgt tfc rnwys 10R, 28R
TOWER 118.1 126.2 122.5R GND CON 121.7
APP CON 120.5 126.2 122.5R 118.1 113.3T 109.9T
ILS 109.9 I-BOI Apch brng 096° LOM: 278 BO
(H) BVORTAC' 113.3 BOI on fld.
RBn H-SAB 359°/BOI 117° 2.1 NM to fld.
REMARKS: 'Not useable beyond 40 NM below 14,000 MSL 360° - 050°.

IDAHO—Continued

IDAHO FALLS
FANNING FIELD *IFR* 2 NW FSS: IDAHO FALLS on Fld
4739 H75 2-20 (2) (S-30, T-90, TT-150) BL5, 6 S5
F4, JP5
REMARKS: Rnwy 20 threshold displaced 930 ft SW. 6600 ft avbl lndg rnwy 20. Rnwy 16 threshold displaced 655ft S. 4495 ft avbl lndg rnwy 16. Rgt tfc rnwys 16 & 20.
TOWER '118.5 122.5R 206T GND CON 121.7
IDAHO FALLS (L) BVOR 108.2 IDA on fld.
IDAHO FALLS RBn H-SABZ 350 IDA 198° 2.2 NM to fld.
REMARKS: 'Oper 1300-0500Z

POCATELLO MUNI *IFR* 7 NW FSS: POCATELLO on Fld
4448 H82 3-21 (3) (S30, T80, TT130) BL5, 6, 9, 12 S5 F4
U2 RVV: Rnwy 21
TOWER 119.1 122.5R GND CON 121.9
ILS 110.3 I-PIH Apch brng 207° LOM: 219 PI
(L) BVOR 114.4 PIH 032° 3.1 NM to fld.
RANGE BMRLZ 257 PH 326° 0.3 NM to fld.

ILLINOIS

CHAMPAIGN
UNIVERSITY OF ILLINOIS-WILLARD *IFR* 4 SSW FSS: CHAMPAIGN on Fld
753 H53 13-31 (3) (S75, T100, TT) BL4 S5 F4, JP1
U2
REMARKS: use rnwys - turf usable by permission.
CHAMPAIGN TOWER 120.5 122.5R 3023.5Rx 233T
CHAMPAIGN GND CON 121.9
CHAMPAIGN° APP CON 119.8 122.5R 120.5 110.0T 233T
ILS 109.1 I-CMI Apch brng 313° LOM: 407/CM
CHAMPAIGN (L) BVORTAC 110.0 CMI on fld.

CHICAGO (West Chicago)
DUPAGE COUNTY *IFR* 3 NW FSS: JOLIET (DL)
758 H40 10-28 (3) (Max-15) BL4, 9° 13 S5 F4 U2
REMARKS: °Non-standard, 1000' down cntr-line. Rnwy 5-23 clsd to all twin eng acft in winds blo 15 kts. All txwys lgtd until 10 PM.
TOWER 120.9 122.5R 342T
GND CON 121.7
REMARKS: 'Oper 1200-0400Z.

CHICAGO
MERRILL C MEIGS FIELD 1 E FSS: JOLIET (DL)
592 H39/18-36 (1) (MAX 15) BL6, 11 F4 JP1 U2
REIL: rnwy 36.
REMARKS: U.S. Customs lndgs rights arpt. No student flying permitted. Fld clsd under following 90° to rnwy wind conditions: (1) 15 knots or more to acft 1, 500 lbs or less. (2) 20 knots or more to single eng acft except tricycle or caster gear afct. (3) 25 knots or more to all acft. Fld clsd daily to all operns btn hrs 2200 and 0600 lcl time due, no safety or svcs facs; no lgtg excpt obstn lgts dur this period. Rgt tfc N.
MEIGS TOWER '121.3 127.8 122.5R
GND CON MEIGS GND CON 121.9
VFR ADV Ctc twr on 127.8 at least 10 mi out.
REMARKS: 'Oper 1200-0400Z.

ILLINOIS—Continued

CHICAGO-MIDWAY *IFR* 9 SW FSS: JOLIET (DL)
619 H65/13R-31L (6) (S-130, T-200, TT-400) BL2, 4, 6, 8A, 9, 11 S5 F5, JP1 U2 RVV: Rnwy 13R
REIL: rnwy 22L
REMARKS: Customs svc avbl 0800-1700 cst Mon-Fri. Two hrs adv notice rqrd to provide svc outside business hrs and on holiday plus overtime charges. Acft for which svcs of Public Health and Immigration rqrd must Ind Chicago-O'Hare Intl Arpt.
MIDWAY TOWER 118.7 126.2 123.7 122.7R 109.9T 109.5T MIDWAY GND CON 121.7
RADAR SERVICES:
CHICAGO APP CON 119.5 126.2 124.7 124.2 122.6R 118.4 113.9T 110.1T 109.7T
CHICAGO DEP CON[1] 124.2 119.2
PAR Rnwy 13R Ceiling 300 Vsby ¼ mi Min Alt 919
ASR Rnwys 4R, 9, 13R, 18, 27, 31L, 36
Ceiling 500 Vsby 1 mi Min Alt 1119. Rnwys 22L, 22R
Ceiling 600 Vsby 1 mi Min Alt 1219
ILS 109.9 I-MDW [2]Apch Brng 132° BC unusable 109.5 LOM: 219/MD 109.5 I-MXT Apch brg 312° KEDZIE LOM 248/MX
VHF/DF Available, contact Tower.
REMARKS: [1] Midway tower provides RADAR coverage to departure acft in the immediate area of Midway. PAR unusable frm MM to touchdown. [2]Glide slope unusable below 870′ MSL.
VOT: 111.0

CHICAGO-O'HARE INTL *IFR* 14 NW FSS: JOLIET (DL)
667 H116/14R-32L (5) (S-120, T-200, TT-375) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1, 4 RVV: Rnwys 14L, 14R, 32L, 32R/27, 9/4 REIL: Rnwy 32R
O'HARE TOWER 118.1 126.2 122.6R 120.7 110.1T 109.7T
CLRNC DEL 121.8 O'HARE GND CON 121.9
RADAR SERVICES: (BCN)
CHICAGO APP CON 125.7[1] 126.2 124.7 124.2 122.6R 119.0[2] 118.4 113.9T 110.1T 109.7T
CHICAGO DEP CON 125.4 125.0 124.2
TFC INFO all inbnd acft ctc Chicago APP CON on 119.0 from the E, 125.7 from the W.
PAR Rnwys 14R, 27, 32L Ceiling 200 Vsby ½ mi Min Alt 867. Rnwys 4, 14L, 22, 32R Ceiling 300 Vsby ¾ mi Min Alt 967
ASR Rnwys 14L, 14R, 22, 27, 32L, 32R Ceiling 400 Vsby 1 mi Min Alt 1067 Rnwy 4 Ceiling 600 Vsby 2 mi Min Alt 1267′
ILS 109.7 I-ORD Apch Brng 138° (14R) LOM: 394/OR 110.1 IOHA[4] Apch Brng 138° (I-IAC[3]) LOM: 368/OH 110.5 Apch Brng 268° LOM: 414/IA 109.1 I-RVG Apch Brng 318° LOM: 257/RV
(L) BVORTAC 113.9/ORD on fld.
VHF/DF Available, contact Tower
REMARKS: [1] 180° - 359° - [2]360° - 179°. On an ASR apch to rnwy 22 do not descend below 1200′ MSL til Radar advises passing twr 926′ MSL 4.2 mi fm end of rnwy. [3]Glide slope unusable below 900′ [4]Lclzr unusable beyond 20 nmi below 2500′ MSL. VOT: 112.0

MOLINE
QUAD CITY *IFR* 3 S FSS: BURLINGTON (DL)
590 H55/9-27 (3) (S-75, T-100, TT-) BL4, 6, 8A, 9 S5 F5, JP4 US RVV: Rnwy 9
REMARKS: Due non-vsby some areas of fld ctc twr for instr.
MOLINE TOWER 118.5[1] 122.5R 110.3T
MOLINE GND CON 121.9
VFR ADV Ctc APP CON on 119.4

ILLINOIS—Continued

MOLINE (Continued)
MOLINE APP CON 119.4 114.4T 111.2T 110.3T 224T
ILS 110.3 I-MLI Apch Brng 086° LOM: 215 ML
MOLINE (L) BVORTAC 114.4/MLI 031° 9.3 NM to fld.
REMARKS: [1]Prim civil local ctl.

PEORIA
GREATER PEORIA *IFR* 4 W FSS: JOLIET
659 H70/12-30 (4) (S-60, T-80, TT-) BL4, 6, 8A, 9 S5 F5 JP1 U2 RVV: Rnwy 31
REMARKS: Rnwy 18 clsd air carrier ngt lndgs.
PEORIA TOWER 119.1 125.8 122.5R
PEORIA GND CON 121.9 VFR ADV Ctc APP CON
PEORIA APP CON 125.8 122.5R 115.2T 109.9T 302T
ILS 109.9 I-PIA Apch Brng 303° LOM:[1] 355 PI
PEORIA (L) BVORTAC 115.2/PIA 4.0 NM to fld.
PEORIA RBn MHW 356/PI 5.3 NM to fld.
REMARKS: [1]RBn used as LOM.

QUINCY MUNI-BLDWIN FLD *IFR* 9 E FSS: QUINCY
769 H54 (3) BL4, 6 S5 F4
ILS:[1] 110.1 I-UIN Apch Brg 035° LOM: 239 UI
(L) BVORTAC 113.1/UNI 028° 6.4 NM to fld.
REMARKS: [1]Glide slope unusable below 950′ MSL.

ROCKFORD
GREATER ROCKFORD *IFR* 4 S FSS: ROCKFORD
735 H60/18-36 (3) (S-75, T-100, TT-) BL4, 6, 8A, 9 S5 F4 JP1 RVV: Rnwy 36
ROCKFORD TOWER 118.3 122.5R 109.3T 362T
ROCKFORD GND CON 121.9
VFR ADV Ctc APP CON on 124.9
ROCKFORD APP CON 124.9 118.3 122.5R
ILS[1] 109.3 I-RFD Apch Brng 002° LOM: 275 RF
(L) BVORTAC 110.8/RFD 114° 6.0 NM to fld.
REMARKS: [1]Glide slope unusable below 926 ft MSL.

SPRINGFIELD
CAPITAL *IFR* 3 NW FSS: VANDALIA
593 H70/4-22 (3) (S-75, T-150, TT-) BL4, 6, 8A, 9, 11 S5 F4, JP4 U2 RVV: Rnwy 4 REIL: rnwy 22.
TOWER 121.3 122.5R 239T
GND CON 121.9
VFR ADV Ctc APP CON on 118.6 aprx 25 NM out
SPRINGFIELD APP CON 118.6 121.3 112.7T 109.5T 379T
ILS[1] 109.5 I-SPI Apch Brng 038° LOM: 230 SP
SPRINGFIELD RBn SBMH 379/SPI 026° 4.4 NM to fld.
REMARKS: [1]Glide slope unusable below 790′ MSL.

INDIANA

EVANSVILLE
DRESS MEMORIAL *IFR* 3 N FSS: EVANSVILLE
389 H60/3-21 (3) (S-70, T-90, TT-) BL4, 6 S5 F5, JP
REMARKS: P-Line apch rnwy 31. Acft not vis on final apch to rnwy 9 within 1500′ apch end at alt of 100′ AGL or be co
EVANSVILLE TOWER 118.7 122.5R
EVANSVILLE GND CON 121.9
EVANSVILLE APP CON 119.4 122.5R 118.7 113.3T 109.9T
ILS 109.9 I-EVV Apch Brng 215° BC unusable LOM: 219/EV
(H) VORTAC 113.3/EVV 12.4 NM to fld.

INDIANA—Continued

. WAYNE

)AER FIELD *IFR* 6 SSW FSS: FORT WAYNE on Fld
801 H80/4-22 (3) (S-90, T-120, TT-) BL4, 6, 8A, 9, 11 S-5
FS, JP1 U2 RVV: Rnwy 31 REIL: Rnwy 22
REMARKS: P-Line apch rnwy 31.
FORT WAYNE TOWER 119.1 126.2 122.5R
FORT WAYNE GND CON 121.9
RADAR SERVICES: (BCN)
FORT WAYNE APP CON 125.5 127.2 126.2 122.5R
117.8T 109.9T 251T FORT WAYNE DEP CON 118.6
TFC INFO Inbnd VHF equipped acft ctc APP CON on 125.5 at least 15 NM out.
ASR Rnwys 4, 9, 13, 27, 31 Ceiling 400 Vsby 1 mi Min Alt 1201. Rnwy 22 Ceiling 500 Vsby 1 mi Min Alt 1301.
ILS[1] 109.9 I-FWA Apch Brng 315° LOM: 219/FW
FORT WAYNE (H) BVORTAC 117.8/FWA on fld.
FORT WAYNE RBn SBH 251/FWA 053° 2.6 NM to fld.
REMARKS: Do not descend below 1500' MSL til radar advised passing fix 3 miles fm end of rnwy 22 due to 1155' MSL twr 3.8 miles NE. [1]Lclzr unusable above 6000' MSL. Glide slope unusable below 1001' MSL. VOT: 111.0

)IANAPOLIS MUNI (Weir Cook) *IFR* 7 SW FSS: INDIANAPOLIS on Fld
797 H76 13-31 (2) (S-100, T-150, TT-270) BL6, 8A, 10, 11, 15 S-5 F4, JP1, 4 U2 VASI: Rnwy 22 RVR: Rnwy 4 RVV: Rnwy 31 REIL: Rnwy 31
REMARKS: Fee multi-eng commercial acft. 700' extn NE end rnwy 4 - 22 clsd.
TOWER 120.9 126.2 122.5R 121.3 116.3T 109.3T
CLRNC DEL 125.7 GND CON 121.9
RADAR SERVICES:
APP CON 126.2 122.7R 122.5R 119.3[1] 118.5 118.1[2] 116.3T 109.3T DEP CON 121.1 121.3
TFC INFO Ctc APP CON on 119.3 118.5 or 118.1
PAR Rnwy 4 Ceiling 200 Vsby ½ mi Min Alt 997
ASR Rnwys 4, 13, 22, 31 Ceiling 400 Vsby 1 mi Min Alt 1197
ILS[4] 109.3 I-IND Apch Brng 044° LOM: 341/IN 110.5 I-COA Apch Brng 313° LOM: 232/CO
(H) BVORTAC 116.3/IND 142° 6.1 NM to fld.
RBn H-SAB 226/IND 078° 2.8 NM to fld.
VHF/DF available, contact Tower.
REMARKS: [1]220-044° [2]045°-219° [3]Glide slope unusable below 997' MSL. VOT: 109.0

ICIE

ELAWARE COUNTY (Johnson Fld) *IFR* 3 N FSS: INDIANAPOLIS (DL)
937 H51 14-32 (2) (S-70, T-90, TT-150) BL4 S5 F4 U2
REMARKS: Unlgtd voltage twr line in NW apch 3480' of end rnwy 14.
MUNCIE TOWER[1] 120.1 122.5R
MUNCIE GND CON 121.9
RADAR SERVICES:
INDIANAPOLIS CENTER APP CON 124.8
INDIANAPOLIS CENTER DEP CON 124.8
REMARKS: [1]Oper 1200-0400Z.

INDIANA—Continued

SOUTH BEND

ST JOSEPH COUNTY *IFR* 3 NW FSS: SOUTH BEND on Fld
788 H60 9-27 (4) (S-110, T-145, TT-) BL4, 6, 8A, 9 S-4
FS U2 RVV: Rnwy 27
REMARKS: P-lines NE, S. 1048' (1918' MSL) TV tur 7.5 nmi SE.
SOUTH BEND TOWER 118.9 122.5R 115.4T 109.3T
SOUTH BEND GND CON 121.9
SOUTH BEND APP CON 121.0 122.5R 115.4T 109.3T
ILS 109.3 I-SBN Apch Brng 269° LOM: 341/SB
(L) BVORTAC 115.4/SBN 180° 3.5 NM to fld.

TERRE HAUTE

HULMAN FIELD *IFR* 5 E FSS: TERRE HAUTE on Fld
585 H90 5-23 (3) (S-100, T-150, TT-270) BL4, 6 S3 F4 U2
REMARKS: 1254' overrun NE end rnwy 5. Rnwy 18-36 clsd to acft over 25,000 lbs.
TOWER 118.3 126.2 122.5R
GND CON 121.9 VFR ADV Ctc APP CON
APP CON 123.8 126.2 122.5R 118.3
ILS 109.7 I-HUF Apch Brng 045° LOM: 272 (HU)
(L) BVORTAC 111.8 HUF 229° 3.0 NM to fld.
RBn BH 245 HUF 225° 4.0 NM to fld.

*****IOWA*****

CEDAR RAPIDS MUNI *IFR* 5 SSW FSS: CEDAR RAPIDS on Fld
863 H70 8-26 (2) (S-100, T-135, TT-) BL4, 6 8A, 9 S-5
FS, TF-1 U2
REMARKS: Eastern N S txwy 1500 x 75' end sod areas avbl as rnwy dur strong N S winds.
TOWER 118.7 122.5R 117.6T 109.3T 278T
GND CON 121.9 VFR ADV Ctc APP CON on 119.9
APP CON 119.9 122.5R 118.7 117.6T 109.3T 278T
ILS[1] 109.3 I-CID Apch Brng 085° LOM: 326/CT
(L) BVORTAC 117.6/CID 088° 2.8 NM to fld
REMARKS: Glide slope unusable below 1047' MSL. BC unusable

DES MOINES MUNI *IFR* 3 SW FSS: DES MOINES on Fld
957 H90 12-30 (3) (S-90, T-135, TT-300) BL4, 6, 8A, 9 S-5 F5, JP4 U2 RVV: Rnwy 30
REMARKS: Rnwy 17-35 restricted to acft not over 25,000 lbs.
TOWER 118.3 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 124.9 122.5R 119.3 114.1T 110.3T 212T
DEP CON 118.6
ASR Rnwys 5, 12, 30 Ceiling 400 Vsby 1 mi Min Alt 1357
ILS 110.3 IDSM Apch Brng 305° LOM: 219/OS
(H) BVORTAC 114.1/DSM 349° 5.4 NM to fld.
BC unusable

SIOUX CITY MUNI *IFR* 6 S FSS: SIOUX CITY on Fld
1097 H90 13-31 (3) (Max 2.25) BL4, 6, 8A, 9, 11 S-5 F5, JP-1 U2 RVV: Rnwy 31 REIL: Rnwy 13
REMARKS: First 1500' rnwy 22 not vis to tower.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 118.7 126.2 124.6 122.5R 116.5T 109.3T
ILS 109.3 I-SUX Apch Brng 307° LOM:[1] 414/SU
(L) BVORTAC 116.5/SUX 312° 3.6 NM to fld.
RBn MHW 414/SU 307° 5.3 NM to fld.
VHF/DF available, contact Tower.

IOWA—Continued

SIOUX CITY (Continued)

REMARKS: [1]LOM is MHW

WATERLOO MUNI *IFR* 4 NW FSS: WATERLOO on Fld
870 H54/12-30 (3) (S-80, T-105, TT-) BL4, 8A, 9 S-5
F4, JP1 U2 RVV: Rnwy 12
TOWER 118.1 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.8
APP CON 125.8 122.5R 109.9T 108.2T
RADAR SERVICES:
ILS[1] 109.9 I-ALO Apch Brng 123° LOM: 382/AL
(L) BVORTAC 108.2/ALO at fld.
REMARKS: Glide slope unusable below 950'.

KANSAS

HUTCHINSON MUNI *IFR* 3 E FSS: HUTCHINSON on Fld
1542 H70/13-31 (3) (S-40, T-55, TT-) BL4, 6, 8A, 9 S-5 F4
REMARKS: Certain rnwys and txwys may be clsd for const.
TOWER 118.5 122.5R
GND CON 121.9 VFR ADV Ctc APP CON on 125.5
APP CON 125.5 122.5R 118.5 116.8T
ILS 110.1 I-HUT Apch Brng 128° LOM: 404 (HU)
(L) BVORTAC 116.8/HUT 5.0 NM to fld.

KANSAS CITY

FAIRFAX MUNI *IFR* 3 NE FSS: KANSAS CITY (LC GRI-4572)
746 H73/17-35 (4) (S- , T-75, TT-170) BL6 S-5 F-5, JP-1
U2
REMARKS: Tfc ptn alt for acft under 12,500 lbs GWT is 600 ft AGL, vsby N and NW greatly reduced.
TOWER 119.1 126.2 122.5R GND CON 121.7
RADAR SERVICES:
KANSAS CITY APP CON 126.2 122.7R 121.1[1] 119.5[2]
112.6T 109.9T KANSAS CITY DEP CON 118.1
REMARKS: [1]W Sector [2]E Sector

TOPEKA

PHILIP BILLARD MUNI *IFR* 3 NE FSS: TOPEKA on Fld
880 H51/13-31 (3) (S-60, T-80, TT-) BL4, 6, 8A, 9 S5 F5
JP1 U2
TOPEKA TOWER 118.7 126.2 122.5R
TOPEKA GND CON 121.9
RADAR SERVICES: (BCN)
OLATHE APP CON 120.5 122.5R
ILS[1] 109.5 I-TOP Apch Brng 125° LOM: 304/TOP
TOPEKA (L) BVORTAC 117.8/TOP 210° 4.9 NM to fld.
TOPEKA RBn MHW 304/TOP 125° 3.9 NM to fld.
REMARKS: [1]Glide slope unusable below 1078' MSL. LOM is MHW.

WICHITA

BEECH *IFR* 5 E FSS: WICHITA (DL)
1387 H50/18-36 (3) F4
REMARKS: Both apch N - S rnwy restricted by polelines.
TOWER 119.9 126.2 122.5R 3023.5R GND CON 121.7
RADAR SERVICES:
WICHITA APP CON 120.1 134.1 125.7 122.7R 332T
WICHITA DEP CON 124.5
ASR [1]Rnwy 18 Ceiling 700' Vsby day 1 mi Min Alt 2087
REMARKS: [1]NA for over 2 eng acft.

KANSAS—Continued

WICHITA MUNI *IFR* 5 SW FSS: WICHITA on Fld
1332 H73/1-19 (2) BL6, 8A, 9 S5 F5, JP1 U2
RVV: Rnwy 01
REMARKS: Acft carrying hazardous or explosive cargo prohibited.
TOWER 119.5 122.5R 110.3T GND CON 121.9
RADAR SERVICES: (BCN)
WICHITA APP CON 120.1 134.1 125.7 122.7R 113.8T
332T
WICHITA DEP CON 124.5 113.8T
ILS 110.3 I-ICT Apch Brg 010° LOM: 219 IC
(H) BVORTAC 113.8/ICT
RBn (SABH) 332/ICT

KENTUCKY

LEXINGTON

BLUE GRASS FIELD *IFR* 5 W FSS: LEXINGTON on Fld
978 H55/4-22 (3) (S-35, T-45, TT-) BL4, 6, 8A, 9 S5 F5
JP-5 U2 RVV: Rnwy 4
REMARKS: Twr unable to see last 1/2 mi final apch rnwy 22 and on ramp from hangar line SE to txwys A, B and C
LEXINGTON TOWER 121.1 122.5R 117.0 110.1T
LEXINGTON GND CON 121.9
LEXINGTON APP CON 119.1 122.5R 117.0 110.1T
ILS 110.1 I-LEX Apch Brng 042° LOM: 242 LE
LEXINGTON (H) BVORTAC 117.0/LEX 304° 7.3 NM to fld.
LEXINGTON RBn MHW 242/LE 042° 3.5 NM to fld.

LOUISVILLE

BOWMAN FIELD *IFR* 5 SE FSS: LOUISVILLE on Fld
549 H43/6-24 (3) (Max 30) BL4, 11 S-5 F-4, JP-4
REIL: Rnwy 24
TOWER 119.5 126.2 122.5R GND CON
RADAR SERVICES:
STANDIFORD APP CON 124.5 126.2 120.5 120.3
STANDIFORD DEP CON 119.0

STANDIFORD FIELD *IFR* 4 S FSS: LOUISVILLE
497 H78/1-19 (3) (S-60, T-90, TT-200) BL4, 6, 8A, 9 S-4
F5, JP1, 5 RVV: Rnwy 29 RVR: Rnwy 1
REMARKS: FEE
TOWER 120.3 126.2 122.7R
CLRNC DEL 121.3 GND CON
RADAR SERVICES:
APP CON 124.5 126.2 120.5 120.3 DEP CON
ASR Rnwys 1, 19 Ceil 400 Vsby 1 mi Min Alt 897.
Rnwys 24, 29 Ceiling 500 Vsby 1 mi Min Alt 997. Rnwys 6, 11 Ceil 600 Vsby 1 mi Min Alt 1097
ILS 110.3 I-SDF Apch Brng 010° LOM: 359 SD 135.7
I-LKS Apch Brng 290° LOM: 414 LK
VHF/DF Available, contact Tower
LOUISVILLE (H) BVORTAC 114.8 LOU 300° 8.4 NM to fld.
RBn BH 359/SD 010° 4.8 NM to fld.
REMARKS: On apch to rnwy 19 maintain at least 1400' MSL within 3 mi of rnwy. VOT: 111.0

LOUISIANA

BATON ROUGE

RYAN *IFR* 4 N FSS: BATON ROUGE on Fld
70 H60/4-22 (3) (S-137, T-175, TT-340) BL4, 6, 11 S5
F4, JP5 U2 REIL: Rnwy 13
TOWER [1]118.3 122.5R GND CON 121.9

LOUISIANA—Continued

ATON ROUGE (Continued)

BATON ROUGE APP CON 119.7 122.5R 116.5T 110.3T

ILS 110.3 I-BTR Apch Brg 127° LOM: 284 BT

BATON ROUGE (L) BVORTAC 116.5 BTR 065° 7.6 NM to fld.

REMARKS: [1]Intermittent severe interference reported within 5 mi radius.

FAYETTE MUNI *IFR* 2 SE FSS: LAFAYETTE on Fld

42 H51 1-19 (2) (S-9, T-20, TT-30) BL4, 8A, 9, 11 S5 F5, JP5 U2 RVV: Rnwy 19 REIL: Rnwy 1

REMARKS: Rnwy 10 threshold displaced 350 ft E. 3966 ft avbl lndg rnwy 10.

TOWER 118.5 122.5R CLRNC DEL 121.7

GND CON 121.7

APP CON 121.1 122.5R 118.5

ILS 109.5 I-LFT Apch Brg 193° BC unusable beyond 10 nmi LOM: 257 LF

(L) BVOR 110.8 LFT 344° 3.0 NM to fld.

RBn BMH 375/LFT at fld.

(E CHARLES MUNI *IFR* 3 S FSS: LAKE CHARLES on Fld

16 H65/15-33 (1) (S-137, T-165, TT-350) BL4, 6, 8A, 9 S5 F4, JP4

REMARKS: Rgt tfc SE.

TOWER 120.7 122.5R GND CON 121.9

APP CON 119.3 122.5R 113.4T 109.1T

ILS 109.1 I-LCH Apch Brg 148° LOM: 353 LC

(H) BVORTAC 113.4 LCH 252° 6.3 NM to fld.

RBn BH 242/LCH

IROE

ELMAN FIELD *IFR* 3 E FSS: MONROE on Fld

79 H50 4-22 (3) (S-30, T-40, TT) BL4, 6, 8A, 9 S5 F4, JP4 U2

MONROE TOWER 119.1 122.5R

MONROE GND CON 121.9

MONROE APP CON 119.1 122.5R

ILS[1] 109.5 I-MLU Apch Brg 038° LOM: 219 ML

MONROE (L) BVORTAC 113.7/MLU 035° 4.2 NM to fld.

REMARKS: [1]Glide slope unusable below 320' MSL.

ORLEANS-LAKEFRONT *IFR* 4 NE FSS: NEW ORLEANS on Fld

10 H57/17-35 (4) (S60 T100 TT160) BL4 S5 F5, JP1, 5 U2

REMARKS: Acft transporting any items listed in part 49 of CAR prior pmsn rqrd to lnd. Rnwy 35 threshold displaced 1226 ft N. 4504 ft avbl lndg rnwy 35. 5202 ft avbl lndg rnwy 17. No ngt operns rnwy 8-26. 1046' (1049' MSL) TV tur 8 nmi S. 1049' (1049' MSL) TV twr 7 nmi SE.

LAKEFRONT TOWER 119.5 126.2 122.5R

LAKEFRONT GND CON 121.7

RADAR SERVICES:

NEW ORLEANS APP CON 125.5 122.7R 118.1

NEW ORLEANS DEP CON 121.0

LOUISIANA—Continued

NEW ORLEANS INTL-MOISANT FLD *IFR* 10 W FSS: NEW ORLEANS (DL)

3 H92 10-28 (3) (S-180, T-225, TT-425) BL4, 6, 8A, 9, 11, 14, 15 S1 F5, JP1, 5 U2 REIL: Rnwy 1

RVV: Rnwy 10

REMARKS: Fee on gross lndg wt. Apch rnwy 28 clsd to Air carrier ngt operns. U S Customs - Lndg rights arpt (7 am-11 pm Mon-Sat) req arr notice be forwarded to US customs when filing flt plan in Canada, Mexico or Cuba.

MOISANT TOWER 119.9 126.2 122.7R 3023.5RX 278T

MOISANT GND CON 121.9

RADAR SERVICES:

APP CON [1]125.5 122.7R 118.1 109.9T

DEP CON 120.4

TFC INFO Ctc APP CON on 118.1

ASR Rnwys 1, 5, ceil 500 vsby 1 mi min alt 503.

Rnwys 10, 23, 28 ceil 400 vsby 1 mi min alt 403.

Rnwy 19 ceil 700 vsby 1 mi min alt 703.

ILS 109.9 I-MSY Apch Brng 009 BC unusable LOM: 338 MS

NEW ORLEANS (H) BVORTAC 113.2 MSY 4.4 NM to fld.

NEW ORLEANS RBn (H-SAB) 099° 6.6 NM to fld.

VHF DF available, contact tower.

REMARKS: [1]Acft transitioning New Orleans NAS MCC use New Orleans ARTCC freq 126.0 durg IFR above 5000; durg VFR use New Orleans APP CON freqs 118.1 & 122.7R.

SHREVEPORT

GREATER SHREVEPORT *IFR* 4 SW FSS: SHREVEPORT on Fld

257 H73 13-31 (2) (S-90, T-135, TT-300) BL4, 6, 8A, 9 F5

RVV: Rnwy 13

SHREVEPORT TOWER 118.3 122.7R 201T

SHREVEPORT GND CONN 121.9

RADAR SERVICES: (BCN)

SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T

SHREVEPORT DEP CON 119.9

TFC INFO Ctc APP CON on 118.5

ILS 110.3 I-SHV Apch Brg 135° LOM: 275 RF

S BRAZ 230 ST 196° 7.8 NM to fld

SHREVEPORT DOWNTOWN *IFR* 2 N FSS: SHREVEPORT (DL)

179 H45 14-32 (3) (S30, T-40, TT) BL4 S5 F5

REMARKS: Due non-vsby some areas of fld ctc twr for instr. Apchs rnwys 14, 32, 18 and 36 restricted by trees-glide angle 0

TOWER 119.5 122.5R 272T GND CON 121.7

RADAR SERVICES: (BCN)

SHREVEPORT APP CON 118.5 123.9 122.5R 117.4T 114.8T

SHREVEPORT DEP CON 119.9

(T) VOR 108.6/DTN at fld.

(H) BVORTAC 117.4/SHV 158° 13.9 NM to fld.

MAINE

PORTLAND MUNI *IFR* 2 W FSS: PORTLAND on Fld

66 H50/11-29 (2) (S-94, T-116, TT-) BL5, 6, 8A, 10 S5 F5, JP1 U2

VASI: Rnwy 29

REMARKS: ILS apch zone for rnwy 11 has unlgtd trees protruding above 7:1 slope maximum penetration of 27' lctd at the end of rnwy and 800' rgt cntrline. Lesser penetrations lctd 250'-430' from end of rnwy and 720'-890' left cntrline

MAINE—*Continued*

PORTLAND (Continued)
1890'-2180' from end of rnwy and 900'-1090' left cntrline.
TOWER 120.9 122.5R 109.9T GND CON 121.9
APP CON 120.9
ILS 109.9 I-PWM Apch Brg 112° LOM: 394/PW
BC unusable

MARYLAND

BALTIMORE
FRIENDSHIP INTL *IFR* 8 S FSS: WASHINGTON (DL)
146 H94/10-28 (3) (S-240, T-500, TT-700) BL6, 8A, 9, 10, 11 S5 F5, JP1, 4, 5 U2 VASI: Rnwy 4 RVR: Rnwy 10
REIL rnwys 4, 22
REMARKS: For Customs use gates A-14 and A-3 clsd 10 PM to 6:30 AM to practice approaches or landings by turbojet and turboprop due noise complaints.
TOWER 118.7 122.7R 109.7T GND CON 121.9
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[1]
BALTIMORE DEP CON 120.4
ASR Rnwys 28, 33 Ceil 400 Vsby 1 mi Min Alt 546.
Rnwys 10, 15, 22 Ceil 500 Vsby 1 mi Min Alt 646
ILS[3] 109.7 I-BAL Apch Brg 102° LOM: 219/BA
(H) BVORTAC 117.9/BAL on fld.
Rng SBMRLZ 257/BL 259° 6.3 NM to fld.
VHF/DF available, contact tower.
REMARKS: [1]101-279° [2]280-100° [3]Glide slope unusable from 400' inside MM to touchdown. VOT: 108.2

BALTIMORE
MARTIN *IFR* 9 E FSS: WASHINGTON (DL)
18 H81/14-32 (4) (S-50, T-160, TT) *L6
Remarks: Prior permission required.
TOWER [1]121.3 126.2 317T 3023.5R
RADAR SERVICES:
BALTIMORE APP CON 121.1[2] 125.9[3]
BALTIMORE DEP CON 120.4
MARTIN RBN (MHW) 272/MTN
REMARKS: [1]Oper 1300-2130 Mon; 1300-0430 Tues thru Fri; 1330-2200Z Sat & Sun [2]280-100° [3]101°-279°

MASSACHUSETTS

BEDFORD
LAURENCE G HANSCOM FLD *IFR* 1 S FSS: BOSTON (DL)
133 H70/11-29 (2) (S-80, T-200, TT-355) BL5, 6, 8A, 9, 10, 11 S5 F5, JP1, 4 U2 VASI: Rnwys 11, 29
REIL: Rnwys 23, 29 RVV: Rnwy 11
TOWER 118.5 126.2 124.4 122.5R 3023.5RX
GND CON 121.7 VFR ADV Inbnd acft ctc APP CON
APP CON 124.4 126.2
RADAR SERVICES:[1]
PAR Rnwy 11 Ceiling 300 Vsby ¾ mi Min Alt 433
ILS 109.5 I-BED Apch brng 112° LOM: 512/BE
BEDFORD (L) VOR[2] 116.0/BED on fld.
BEDFORD RBn HW 512/BE 112° 4.0 NM to fld.
VHF/DF available, contact tower.
REMARKS: [1]GCA oper 1400-0400Z Mon-Sat. LOM is HW facil
VOT: 110.0

MASSACHUSETTS—*Continued*

BOSTON
LOGAN INTL *IFR* 1 E FSS: BOSTON [illegible]
19 H100/4R-22L (4) (S-200, T , TT) BL6, 8A, 8B, 9, 10
S5 F5, JP4, 5 U2 VASI: Rnwy 22L RVR: Rnwy 4R
REMARKS: FEE. Lndg threshold rnwy 4R displaced 2502' to NE, 10,023' avbl except lndg length toward NE restricted to 7521' during IFR conditions and hrs of darkness. Rnwy 4L-22R usable width 150' threshold at apch end rnwy 22R relocated 800' SW. Tmprly lndg threshold rnwy 4R displaced 2502' to NE for all lndg operns. 1199' (1349' MSL) TV twr 10 nmi SW
BOSTON TOWER 118.1 126.2 122.5R 110.3T
CLRNC DEL 121.65 BOSTON GND CON 121.9
RADAR SERVICES:
BOSTON APP CON [2]120.6 [1]126.5 126.2 122.5R 110.3T 382T
BOSTON DEP CON 119.1
PAR Rnwy 4R ceil 200 vsby ½ mi min alt 219
ASR Rnwys 4, 15 Ceil 700 Vsby 1 mi Min Alt 719. Rnwy 22L Ceil 600 Vsby 1 mi Min Alt 619. Rnwys 27, 33 Ceil 500 Vsby 1 mi Min Alt 519
ILS 110.3 I-BOS [4]Apch Brg 035° BC unusable. LOM: 22[illegible]
BO 110.7 I-LIP[3] Apch Brg 330° BC unusable LOM: 34[illegible]
LI
BOSTON (H) BVORTAC 117.7/BOS on fld.
BOSTON RBn H-SAB 382/BOS 234° 1.0 NM to fld.
VHF/DF available, contact Tower.
REMARKS: [1]215-319° [2]320°-214° [3]Glide slope unusable below 219' MSL. [4]April 26 glide slope will be shutdown until May 1 for mod. VOT: 111.0

HYANNIS
BARNSTABLE MUNI *IFR* 1 N FSS: NANTUCKET [illegible]
52 H55/6-24 (2) (S-46, T-88, TT-134) BL5, 6, 8A, 9, [illegible]
S5 F5, JP5 U2 RVV: Rnwy 24 REIL: Rnwy 6
REMARKS: Poles SE, SW. Rnwy 11-29 open for daly lndgs [illegible] tk-ofs Oct 15-Apr 30 to acft under 30,000 lbs on pilot req [illegible] and W wind exceeds 14 knots.
HYANNIS TOWER 119.5 122.5R
HYANNIS GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 110.5 I-HYA Apch Brg 246° LOM: 342 HY
BC unusable
HYANNIS (L) BVOR 110.8/HYA 242° 3.2 NM to fld.

NANTUCKET MEMORIAL *IFR* 3 SE FSS: NANTUCKET [illegible]
47 H50/6-24 (2) (S-90, T-160, TT-293) BL5, 6, 8A, 9 S[illegible]
F4 RVV: Rnwy 24
REMARKS: Ctn-birds vic fld.
TOWER [1]118.3 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
OTIS APP CON 118.2 134.1 116.8T
OTIS DEP CON 124.7
ILS 109.1 I-ACK Apch Brg 240° Lom 248 AC
VHF/DF available, contact FSS.
NANTUCKET (H) BVORTAC 112.7 ACK 240° 1.9 NM to Fld.
REMARKS: [1]Oper 1200-0400Z advisory svc other times.

MASSACHUSETTS—*Continued*

W BEDFORD MUNI *IFR* 2 NW FSS: NANTUCKET (DL)
79 H50 5-23 (2) (S-50, T-65, TT) BL5, 6, 8 S5 F4 U2
REMARKS: ILS apch zone for rnwy has unlgtd trees protruding above the 7 to 1 slope.
TOWER 121.3 122.5R 109.7T GND CON 121.9
RADAR SERVICES: (BCN)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.7 I-EWB Apch Brg 053° LOM: 274 EW

STFIELD
ARNES MUNI *IFR* 3 N FSS: WINDSOR LOCKS (DL)
270 H90, 2-20 (3) (S-60, T , TT) BL5, 6 S3 F4, JP4
REMARKS: Acft arresting barriers installed rnwy 2-20 avbl on req.
WESTFIELD TOWER [1] 121.3 126.2 122.5R
WESTFIELD GND CON 121.7
WESTFIELD (L) BVOR[2] 113.0 BAF at fld.
WESTFIELD RBn SBMHZ 230 BAF 203° 4.8 nmi to fld.
REMARKS: [1]Oper 1100-0300Z. [2]VOR unusable beyond 35 nmi 270°-320° at MOCA.

RCESTER MUNI *IFR* 3 W FSS: WORCESTER on Fld
1009 H71 (11-29) (3) (S-90, T, TT) BL6, 12 S5 F4, JP1 RVV: Rnwy 33
REMARKS: Rnwy 11-29 threshold displaced 150'
TOWER 120.5 121.9 110.9T 255T
GND CON 121.9
ILS 110.9 I-ORH Apch Brg 332° LOM: 282/OR BC unusable

•••MICHIGAN•••

PENA
HELPS COLLINS *IFR* 6 W FSS: PELLSTON
689 H90 (18-36) (3) (S95 T-125, TT-210) BL6 S5 F4 U1 RVR Rnwy 36
REMARKS: Rnwy 18 9000 ft usable. Rnwy 36 first 1000 ft clsd UFN, ngt lndg use lgtd threshold for 8000 ft usable rnwy. Rnwy 12-30 clsd UFN.
COLLINS TOWER[1] 120.9 126.2 GND CON 121.9T 122.5R
ALPENA RBN HW 414/APN
REMARKS: [1]1300-0100.

TTLE CREEK
K KELLOGG REGIONAL AIRFIELD *IFR* 3 W FSS: JACKSON field)
941 H70, 4-22 (4) (S-40, T-65-TT-115) BL4, 6, 8A, 9 S5 F4
REMARKS: Rnwys 9-27, 18-36 clsd dur winter mos. E ramp S of twr and portion N ramp mil area not visible from twr.
BATTLE CREEK TOWER 118.5 122.5R 396T
BATTLE CREEK GND CON 121.9
VFR ADV Ctc APP CON on 121.2 when 25 mi out.
BATTLE CREEK APP CON 121.2 122.5R
ILS[1] 110.5 I-BTL Apch Brg 224°. LOM: BATTLE CREEK Rbn 272/BT
BATTLE CREEK (T) BVORTAC 109.4/BTL at fld.
BATTLE CREEK RBn MHW 272/BT 3.7 nmi to fld.
REMARKS: [1]Glide slope unusable below 1141' MSL.

MICHIGAN—*Continued*

DETROIT CITY *IFR* 5 NE AOE FSS: DETROIT (DL)
626 H51 15R-33L (3) (S250 T-350 TT) BL4, 11 S5 F4, JP1 U2 REIL: Rnwy 15
TOWER 118.7 122.5R GND CON 121.9
APP CON 120.0 122.5R DEP CON 127.3
VHF DF available, contact tower.
VOT: 112.0

DETROIT METROPOLITAN WAYNE *IFR* 13 SW AOE
FSS: DETROIT on Fld
639 H105 3L-21R (4) (S-200, T-200, TT-400) BL4, 6, 8A, 9, 10, 11 S5 F4, JP1, 4 U2 VASI: Rnwy 27L RVR: Rnwy 3L REIL: Rnwy 3R
REMARKS: Rnwy 15 threshold displaced 650'.
DETROIT METROPOLITAN TOWER 121.1 126.2 122.7R 109.3T CLRNC DEL 120.65
DETROIT METROPOLITAN GND CON 121.7
RADAR SERVICES:
WILLOW RUN APP CON 123.7 125.15 124.9 122.6R 114.9T 109.5T 332T
WILLOW RUN DEP CON 118.4
ILS 109.3 I-DTW Apch Brg 032° LOM: 257 DT 110.7
I-DWC Apch Brg 212° LOM: 367/DW
DETROIT RBn SABH 388 DTW 121° 1.5 NM to fld.

DETROIT
WILLOW RUN *IFR* 19 SW FSS: DETROIT (DL)
716 H75 5R-23L (5) (S-60, T-90, TT-200) BL2, 4, 6, 8A, 9, 11 S5 F5, JP1, 4 RVR: Rnwy 5R REIL: Rnwy 23L
REMARKS: First 500' rnwy 9L not vis from twr.
TOWER 121.3 122.6R 109.5T GND CON 121.9
RADAR SERVICES:
APP CON 125.15 124.9 123.7 122.6R 114.9T 109.5T
DEP CON 118.4
TFC INFO Ctc APP CON on 124.9 or 123.7
PAR Rnwy 5R ceil 200 vsby ½ mi min alt 916. Rnwy 5L ceil 400 vsby 1 mi min alt 1116
ASP Rnwy 9L ceil 600 vsby 1 mi min alt 1316. Rnwys 5L, 5R, 14, 36 ceil 500 vsby 1 mi min alt 1216. Rnwys 18, 23L, 23R, 27L, 27R, 32 ceil 400 vsby 1 mi min alt 1116
ILS 109.5 I-YIP Apch Brg 050° LOM: 359/YI
VHF/DF available, contact tower.
WILLOW RUN (T) VOR 114.9 YIP at fld.
FORD RBn MHW 375/FRD 230° 3.9 nmi to fld. (T) VOR 114.9
VOT: 109.0

FLINT
BISHOP *IFR* 3 SW FSS: LANSING (DL)
781 H56/927 (3) (S-40, T-60, TT-110) BL4, 6, 8A, 9 S5 F4 U2
REMARKS: Rnwy 18 threshold displaced 635 ft.
FLINT TOWER 119.5 123.6 122.5R 111.6T 109.9T
FLINT GND CON 121.9 VFR ADV Ctc APP CON on 123.6 aprx. 25 NM out.
FLINT APP CON 123.6 122.5R 119.5 111.6T 109.9T
ILS 109.9 I-FNT Apch Brg 091° LOM: 269/FN
FLINT (L) BVORTAC 111.6/FNT on fld.

GRAND RAPIDS
KENT COUNTY *IFR* 6SE FSS: SAGINAW
793 H66, 8-26 (2) (Max-45) BL6, 8A, 9, 15 S5 F5, JP1 U2 RVV: Rnwy 26
TOWER 119.3 122.5R GND CON 121.9
VFR ADV Inbnd VHF equipped acft ctc APP CON on 124.6 MCS 10 mi out.
GRAND RAPIDS APP CON 124.6 122.5R 109.7T

MICHIGAN—Continued

GRAND RAPIDS (Continued)

ILS 109.7 I-GRR Apch Brg 262° LOM: 263/GR
(L) BVOR 110.2/GRR 351° 5.7 NM to fld.

JACKSON

REYNOLDS MUNI *IFR* 2 W FSS: JACKSON on Fld
1000 H53/5-23 (2) (S-60, T-80, TT-) BL5, 11 S5 F4
REIL: Rnwy 23 (1200-0400)
REMARKS: Rnwy 5 threshold displaced 627 ft. Rnwy 31 threshold displaced 550'.
JACKSON TOWER [1]120.7 122.5R 121.9 109.6
CLRNC DEL 121.9 JACKSON GND CON 121.9
JACKSON (L) BVOR 109.6/JXN on fld.
REMARKS: Twr oper 1200-0400Z.

KALAMAZOO MUNI *IFR* 1 SE FSS: SOUTH BEND (DL)
874 H53/17-35 (3) (S-30, T-50, TT-85[1]) BL4, 6, 8A, 9 S5 F4, JP5
REMARKS: (S-40, T-65, TT-110) avail rnys 5-23 & 9-27
TOWER[1] 118.3 122.7R 362T GND CON 121.7
BATTLE CREEK APP CON 121.2
ILS[2] 110.9 I-AZO Apch Brg 352° LOM: 371/AZ
(L) BVOR 109.0/AZO on fld.
REMARKS: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1062'

LANSING

CAPITAL CITY *IFR* 3 NW FSS: LANSING on Fld
859 H65/9-27 (2) (S-30, T-40, TT) BL4, 6, 8A, 9 11 S5 F4, JP1 RVV: Rnwy 27 REIL rnwy 6
LANSING TOWER 119.9 122.5R 110.8T 110.1T
LANSING GND CON 121.9 VFR ADV Ctc APP CON on 125.9 aprx 25 NM out.
LANSING APP CON 125.9 122.5R 110.8T 110.1T
ILS 110.1 I-LAN Apch Brg 273° LOM: 219/LA
LANSING (L) BVOR 110.8/LAN 054° 5.4 NM to fld.

MUSKEGON CO *IFR* 4 S FSS: MUSKEGON on Fld
628 H56/14-32 (3) (S-30, T-40, TT) BL6, 8A, 9 S5 F4 U2 RVV: Rnwy 32
REMARKS: Rnwy 36 threshold displaced 300'. Rnwy 14 threshold displaced 300'.
TOWER 121.1 122.5R GND CON 121.9 VFR ADV Ctc APP CON aprx 25 mi out on 118.2
APP CON 118.2 122.5R 115.2T 109.9T
ILS[1] 109.9 I-MKG Apch Brg 317° LOM: 219/MK
BC unusable
(L) BVORTAC 116.2/MKG 8.4 NM to fld
RBn (HW) 302/C (1 min on 1 min off)
REMARKS: [1]Glide slope unusable below 828' MSL.

PONTIAC MUNI *IFR* 5 W FSS: DETROIT (LC PA 2-8790)
974 H53/9-27 (3) (S-40, T-65, TT-110) BL6 S5 F4 U2
TOWER [1]120.5 122.5R 275Tx GND CON 121.9
RADAR SERVICES:
CLEVELAND CENTER APP CON 126.4
CLEVELAND CENTER DEP CON 126.4
(L) BVOR 111.0/PTK
REMARKS: [1]Oper 1100-0300Z.

MINNESOTA

DULUTH INTL *IFR* 5 NW AOE FSS: HIBBING
1429 H101/9-27 (3) (S-60, T-100, TT-185) BL4, 6, 8A, 9, 10 F5, JP4 VASI: Rnwy 27 RVV: Rnwy 9-27

MINNESOTA—Continued

DULUTH (Continued)

FSS: [illegible]
REMARKS: Caution, const in prog. 2000' concrete extsn [illegible] rnwy 9 threshold lgts and end mrkgs unusable. Jet arrest[illegible] barrier cable installed 600' from apch end rnwy 27 and 2[illegible] from apch end rnwy 9. 1000' overrun rnwy 27.
TOWER 118.3 122.5R GND CON [illegible]
RADAR SERVICES: (BCN)
APP CON 125.8 122.5R 112.6T 110.3T
DEP CON 126.2
PAR Rnwy 9 Ceil 200 Vsby ½ mi Min Alt 1629
Rnwy 27 ceil 300 vsby 3/4 mi Min Alt 1729
ASR Rnwy 9 Ceil 400 Vsby 1 mi Min Alt 1829. Rnwy 27 Ceil 500 Vsby 1 mi Min Alt 1929.
ILS[1] 110.3 I-DLH Apch Brg 088° LOM: 201 DL
VHF/DF available, contact Tower.
(H) BVORTAC 112.6/DLH 013° 2.2 NM to fld
RBn H-SAB 379/DLH 088° 5.6 NM to fld.
REMARKS: Acft arriving Duluth with proper freq are requested to make initial ctc with Duluth App Con at least 15 min[illegible] on 125.8 regardless of wx. [1]Unusable below 1594' MSL.

MINNEAPOLIS

CRYSTAL *IFR* 8 NW FSS: MINNEAPOLIS [illegible]
869 H32/13L-31R (2) (Max-4) BL4 S5 F4
REMARKS: Grass strips usable but rough. Portions of arpt [illegible] visible from twr. Threshold rnwy 23R displaced 400' SW landing distance available 2100'.
TOWER [1]120.7 122.5R 257T GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 122.7R
MINNEAPOLIS DEP CON 119.3
REMARKS: [1]Oper 1200-0400Z.

FLYING CLOUD *IFR* 11 SW FSS: MINNEAPOLIS [illegible]
909 H36/9L-27R (3) (Max 8) BL4 S5 F4, JP4
TOWER[1] [2]120.5 122.5R 272T GND CON 121.7
RADAR SERVICES
MINNEAPOLIS APP CON 120.0 126.5 122.7R
MINNEAPOLIS DEP CON 119.3
(T) VOR 111.8/FCM at fld.
REMARKS: [1]Oper 1200-0400Z. [2]To be changed to 118.1 [illegible] April 1.

MINNEAPOLIS-ST PAUL INTL *IFR* 6S FSS: MINNEAPOLIS [illegible]
840 H100/11R-29L (3) (S-120, T-180, TT-400) BL5 [illegible] 10, 11 S5, JP1, 4 VASI: Rnwy 11R RVR: Rnwy 4
REIL rnwy 11R
REMARKS: First 1000' NE end rnwy 4-22 clsd to non-[illegible] Rnwy 11L-29R threshold displaced 610' SE. Twr unable to see all areas of arpt. Navy emergency chain arresting gear installed both ends 11R/29L and 4-22.
MINNEAPOLIS TOWER 118.7 126.2
CLRNC DEL 119.55
MINNEAPOLIS GND CON 121.9
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 122.7R 117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
PAR Rnwy 29L Ceil 300 Vsby ½ mi Min Alt 1[illegible]
ASR Rnwy 11R 29L Ceil 400 Vsby 1 mi Min Alt [illegible] Rnwy 22 Ceil 600 Vsby 1 mi Min Alt 1440. Rnwy 4 Ceil 500 Vsby 1 mi Min Alt 1340
ILS 110.3 I-MSP Apch Brg 295° Lom: 215 MS [illegible] Apch brng 039° Lom: 338/AP
VHF/DF available, contact Tower.

MINNESOTA—Continued

NEAPOLIS-ST PAUL (Continued)
(H) BVORTAC 117.3 MSP 154° 16.5 NM to fld
RBn (H-SAB) 226 MSP 287° 2.4 NM to fld
REMARKS: CAUTION—on apch to rnwy 11R do not descend below 1400' until radar controller has advised passing twr 2.5 fm apch end rnwy 11R [1]Unusable MM to touchdown rnwy 4. BC unusable beyond 16 nmi.
VOT: 111.0

HESTER MUNI *IFR* 7 S FSS: ROCHESTER on Fld
1310 H64/13-31 (2) (Max 60) BL4, 6, 8A, 9 S5 F4, JP4
U2 RVV: Rnwy 31
TOWER 118.3 122.5R 121.9 278Tx GND CON 121.9
VFR ADV Ctc APP CON on 119.8.
APP CON 119.8 122.5R 112.0T 109.9T
ILS 109.9[1] I-RST Apch Brg 307°
Remarks: [1]Lclzr front crs unusable beyond 20 nmi.

'AUL-DOWNTOWN *IFR* 1 S FSS: MINNEAPOLIS (DL)
703 H55/12-30 (3) (Max 45) BL2, 4 S5 F5, JP5 U2
REMARKS: 4562 ft avbl lndg rnwy 12. NE-SW rnwy used as txwy.
ST PAUL TOWER [1]119.1 122.5R 396T
ST PAUL GND CON 121.7
RADAR SERVICES:
MINNEAPOLIS APP CON 120.0 126.5 122.7R
117.3T 111.8T 110.3T 109.3T 266T
MINNEAPOLIS DEP CON 119.3
T-VOR 108.6 STP 289° 4.6 NM to fld.
REMARKS: [1]Oper 1200-0400Z.

••• MISSISSIPPI •••

FPORT MUNI *IFR* 3 NE FSS: MOBILE (LC 864-1864)
28 H90/13-31 (3) (S-60, T-115, TT-120) BL4, 6, S5 F5, JP1 U2
REMARKS: Arrest barrier in oper on Rnwy 13-31. J-bar avbl Rnwy 13-31 on 5 min notice. 1000 ft overruns ea end Rnwy 13-31.
TOWER 121.3 122.5R 109.0T GND CON 121.9
APP CON 119.3 122.5R 109.0T

(SON
WKINS FIELD *IFR* 2 NW FSS: JACKSON (LC 939-5212)
343 H54/16-34 (2) (Max 15)[1] BL4, 6 S5 F4 U2
REMARKS: [1] Max 20 avbl rny 16-34.
TOWER 118.7 126.2 122.5R 278T
RADAR SERVICES:
JACKSON APP CON 123.9[1] 125.2[2]
JACKSON DEP CON 123.9 125.2
JACKSON RBn H-SAB/JAN 182° 2.3 NM to fld.
REMARKS: [1]333°-152°. [2]153°-332°.

HPSON FIELD *IFR* 5 E FSS: JACKSON on Fld
345 H85/15-33 (1) (S-120, T-150, TT-265) BL6, 8 S5 F5, JP5 U2 RVV: Rnwy 15
JACKSON TOWER 120.9 126.2 122.7R 348T
JACKSON GND CON 121.7
RADAR SERVICES: (BCN)
JACKSON APP CON 125.2[1] 123.9[2]
JACKSON DEP CON 125.2[1] 123.9[2]
ASR Rnwys 15, 33 Ceil 400 Vsby 1 mi Min Alt 745
LS[4] 110.5 I-JAN[3] Apch Brg 152° LOM: 365/JA
JACKSON (H) BVORTAC 112.6 JAN 151° 11.7 NM to fld.
REMARKS: [1]153-332°. [2]333°-152° [3]ILS lclzr usable area

MISSISSIPPI—Continued

THOMPSON FIELD (Continued)
restricted to front crs and 35° either side of cntr line. [4]Glide slope unusable below 485'.

MERIDIAN
KEY FIELD *IFR* 3 SW FSS: MERIDIAN on Fld
297 H80/1-19 (2) (S-45, T-120, TT-220) BL6 S3 F4, JP3
RVV: Rnwy 01
REMARKS: Transmissometer rnwy 1. Rnwy lgts on request after 1:00 AM.
TOWER[1] 118.2 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
MERIDIAN APP CON 120.5
MERIDIAN DEP CON 124.7[1]
ILS[2] 110.1 I-MEI Apch Brg 004° LOM: 356/ME
MERIDIAN (L) BVORTAC 117.0 MEI 129° 3.5 NM to fld
MERIDIAN RBn HW/ME 356 006° 4.5 NM to fld.
REMARKS: [1]Twr opers 1300-0500Z. [2]BC unusable. Glide slope unusable below 384' MSL. [3]To be changed 124.8 about March 25. RBn (ME) used as LOM.

••• MISSOURI •••

JOPLIN MUNI *IFR* 4 NE FSS: JOPLIN on Fld
980 H55 (3) BL4, 6 S5 F4 U1
ILS[1] 110.3 I-JLN Apch Brg 130°
REMARKS: [1]BC unusable within 1.5 nmi end of rnwy. Front crs unusable below 1158 ft MSL.

KANSAS CITY
MID-CONTINENT INTL *IFR* 15 NW
FSS: KANSAS CITY (LC GR 1-4572)
1011 H90/18-36 (1) (S, T-150, TT-300) BL6, 8 F5, JP1
RVV: Rnwy 36
REMARKS: W 4000' of E/W txwy avbl for use as rnwy if 12,500 lbs or less dur strong winds.
TOWER [1]120.7 122.4R GND CON 121.8
RADAR SERVICES:
KANSAS CITY APP CON 119.5[2] 126.2 122.7R 121.1[3]
112.6T 109.9T KANSAS CITY DEP CON 118.1
ILS 110.5 I-MCI Apch Brg 005° LOM: 404/MC
REMARKS: [1]Oper 1300-0500Z. [2]E sector. [3]W sector.

KANSAS CITY MUNI *IFR* 4 N FSS: KANSAS CITY on Fld
758 H70/18-36 (3) (S-110, T-165, TT-365) BL4, 6, 8 11, 13 S5 F4, JP1 U2 RVV: Rnwy 18 REIL: Rnwy 36
REMARKS: Rnwy 35 usable daylight hrs only.
TOWER 118.3 126.2 125.8 122.7R 121.1 111.4T
CLRNC DEL 125.8 GND CON 121.9
RADAR SERVICES:
APP CON 119.5[1] 126.2 122.7R 121.1[2] 112.6T 109.9T
DEP CON 118.1 PAR Rnwy 18 Ceil 400 Vsby 1 mi
Min Alt 1158.
ILS[3] 109.9 I-MKC Apch Brg 185° LOM: 219/MK
BC unusable
(H) BVORTAC 112.6/MKC 171° 8.7 NM to fld.
RBn SABH 359/MKC 144° 2.6 NM to fld.
RIVERSIDE (T) BVOR 111.4/RIS on fld.
VHF/DF available, contact tower.
REMARKS: Req all arriving VFR flts eqp with proper simplex freqs make initial ctc with Kansas City app con on appropriate freq for preliminary landing info. Acft approaching fm 001°-180° use 119.5 and/fm 180°-360° 121.1. Radar advisories avbl. [1]E sector. [2]W sector. ASR apch not auth. [3]Glide slope unusable below 1014 ft MSL.

MISSOURI–*Continued*

KANSAS CITY (Continued)
VOT: 108.6

ST JOSEPH
ROSECRANS MEMORIAL *IFR* 3 WNW FSS: KANSAS CITY (DL)
826 H80/17-35 (3) (S-60, T-160, TT-250) BL4, 6, 8 S5 F4
TOWER 119.9 122.5R GND CON 121.9
KANSAS CITY APP CON 121.1 126.2 122.7R 119.5
KANSAS CITY DEP CON 118.1
ILS 110.3 I-STJ Apch Brg 352°
(L) BVORTAC 108.2/STS 167° 10.7 NM to fld.

ST LOUIS
LAMBERT-ST LOUIS *IFR* 10 NW FSS: ST LOUIS on Fld
571 H100/12R-30L (4) (Max 75)[1] BL4, 6, 8A, 9, 11 S5 F4, JP1, 5 U2 RVR: Rnwy 24 REIL rnwy 6
REMARKS: [1](Max-100) rnwy 17-35.
ST LOUIS TOWER 118.5 126.2 122.7R 119.5 278T
CLRNC DEL 119.5 ST LOUIS GND CON 121.9 122.5R
RADAR SERVICES:
ST LOUIS APP CON 126.5[1] 123.7 122.5R 118.1

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[2]117.4T 110.3T ST LOUIS DEP CON 119.9
PAR Rnwy 24 Ceil 200 Vsby ½ mi Min Alt 771.
ASR Rnwys 6, 17, 24, 30L, 35 Ceil 500 Vsby 1 mi Min Alt 1071. Rnwys 12L, 30R Ceil 500 Vsby 1 ½ mi Min Alt 1071. Rnwy 12R Ceil 400 Vsby 1 mi Min Alt 971.
ILS 110.3 I-STL Apch Brg 238° [3]109.7 LOM: 404/ST
VHF/DF available, contact tower.
ST LOUIS (H) BVORTAC 117.4/STL 138° 8.0 NM to fld.
ST LOUIS RBn (SABH) 338/STL 225° 1.7 NM to fld.
REMARKS: [1]Southeast arrivals. [2]Northwest arrivals. Except rnwy 12. [3]To be comsnd March 15.
VOT: 111.0

SPIRIT OF ST LOUIS *IFR* 23W FSS: ST LOUIS (LC PE 1-4411)
511 H51/7-25 (1) (T-30) L6 S1 F4
REMARKS: Special Air Traffic Rules - Part 93, Subpart G in effect. Unlgtd p-line 1000' W apch end rnwy 7. Rgt tfc rnwy 7.
TOWER[1] 121.3 122.5R 121.5X
REMARKS: [1]Opers 0700-1900 CST daily.

SPRINGFIELD MUNI *IFR* 5 NW FSS: SPRINGFIELD on Fld
1267 H56/1-19 (2) (S-80, T-135, TT-300) BL4, 6, 8 S5 F5, TP1 RVV: Rnwy 1
TOWER 119.9 122.5R GND CON 121.9
VFR ADV 125.8
APP CON 125.8 122.5R 116.9T 109.9T
ILS[1] 109.9 I-SGF Apach Brg 015° LOM: 404/SG
(H) BVORTAC 116.9/SEF 193° 6.8 NM to fld
RBn H-SAB 254/SGF 137° 3.6 NM to fld
REMARKS: [1]Glide slope unusable below 1325 ft MSL.

*** MONTANA ***

BILLINGS
LOGAN FIELD *IFR* 2 NW FSS: BILLINGS on Fld
3606 H86/9-27 (3) (S-130, T-200, TT-400 BL2, 6, 8 S5 F5, JP1, 4 U2 RVV: Rnwy 9
BILLINGS TOWER 118.3 122.5R 278T
BILLINGS GND CON 121.9
BILLINGS APP CON 120.5 122.5R 120.5 114.5T

MONTANA–*Continued*

BILLINGS (Continued)
110.3T 3023.5R 278T
ILS[1] 110.3 I-BIL Apch Brg 095° LOM: 251 B[1]
BILLINGS (H) BVORTAC 114.5/BIL 070° 3.3 NM to fld
BILLINGS RBn H-SAB 400/BIL 243° 1.4 to fld
REMARKS: [1]Not approved for auto apchs.

GREAT FALLS INTL *IFR* 3 SW FSS: GREAT FALLS on Fld
3671 H90/3-21 (4) (S-60, T-80, TT) BL4, 6, 8 S5 F5, JP1 U2 RVV: Rnwys 16, 34
REMARKS: Rnwy 7-25 rest to acft 64,000 lbs or less.
TOWER 118.7 126.2 122.5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1 134.1 126.2 122.7R 122.5Rx 121.[illegible]
119.3 116.3T 3023.5Rx DEP CON 121.[illegible]
TFC INFO Ctc APP CON on 118.1 119.3 or 122.5R
ILS 110.3 I-GTF Apch Brg 341° LOM: 407 GT
BC unusable
(H) BVORTAC 115.1/GTF 026° 1.9 nmi to fld
RBn H-SAB 371/GTF 009° 0.9 nm to fld.

HELENA *IFR* 2 NE FSS: HELENA on Fld
3873 H70/8-26 (3) (S-90 T-120, TT-200) BL 5, 11 S5 F5 JP4 U2 REIL rnwy 26
REMARKS: Rnwy 11-29 restricted to 100,000 lbs GWT. Rgt tfc W, SW, NW.
HELENA TOWER 118.3 122.5R 278T GND CON 121.[illegible]
(H) BVOR 117.7/HLN at fld.
Rny SBMRAZ 317/AN 246° 1.4 nm to fld

MISSOULA CO *IFR* 4 NW FSS: MISSOULA on Fld
3203 (H59/16-34 (3) (Max-30) BL2. 4 S5 F4 U2
REMARKS: Rnwy 11-29 rest to 150,000 lbs gwt with 132' emerg overrun NW end for acft under 25,000 lbs. Rnwy [illegible] restricted to 65,000 lbs GWT. Rnwy 7-25 rest to 12,500 lbs GWT.
TOWER [1]118.5 122.5R 278T GND CON 121.9
(L) BVORTAC 112.8/MSO at fld
RBn H-SAB 308/MSO 119° 1.6 nm to fld.
REMARKS: [1]Oper 1300-0500Z.

*** NEBRASKA ***

GRAND ISLAND MUNI 4 NE FSS: GRAND ISLAND on Fld
1846 H72 (3) BL5, 6 S5 U-1 F5, JP-1
TOWER[1] 118.1 126.2
(L) BVORTAC 112.0/GRI 169° 0.4 nm to fld
REMARKS: [1]Oper 1600-2359Z.

LINCOLN MUNI/AFB *IFR* 4 NW FSS: LINCOLN on Fld
1198 H129/17R-35L (2)[1] (Max-15) BL6, 8, 9, 11 S5 F5, JP1 RVV: Rnwys 17, 35 REIL: Rnwy 17R
REMARKS: [1]All civ acft use 4000 ft rnwy 17L-35R except Max 30, BL6 in actual IFR conditions or when acft manufacturers recommendations rqr the use of rnwy 17R-35L. Ctn-jet tfc.
TOWER 118.5 126.2 122.5R 272T GND CON
RADAR SERVICES: (BCN)
APP CON 123.7 124.8 120.4 109.9T 108.4T
3023.5R DEP CON [illegible]
TFC INFO VFR acft etc APP CON on 124.8 [illegible]
ILS[1] 109.9 I-LNK Apch Brg 351° LOM: 385 LN
(L) VOR 108.4/LNK 5.4 nm to fld
Rbn MHW 385/LN
REMARKS: [1]RBn (LN) used as LOM

NEBRASKA—*Continued*

AHA
PPLEY FIELD *IFR* 3 NE FSS: OMAHA on Fld
593 H85 14-32 (4) (S-180, T-200, TT-400) BL4, 6, 8A, 9, 11, 12 S5 F5, JP1, 4 RVV: Rnwy 14 REIL: Rnwy 35
REMARKS: US Customs lndg rts arpt
TOWER 119.1 126.2 122.5R OMAHA GND CON 121.9
RADAR SERVICES: (BCN)
OMAHA APP CON 120.1 125.7 122.5R
OMAHA DEP CON 124.5 118.0
ILS[1] 110.3 I-OMA Apch Brg 135°. LOM: 379 OM
OMAHA (H) BVORTAC 116.3 OMA 309° 10.2 nm to fld.
OMAHA RBn S-ABH 320 OMA 139° 4.4 nm to fld.
REMARKS: BC unusable all alts 80° either side front crs to 45° either side BC due tendency false courses.

••• NEVADA •••

VEGAS
CARRAN FIELD *IFR* 5 S FSS: LAS VEGAS on Fld
2171 H100 7-25 (3) (S-100, T-200, TT-380) BL4, 6, 10 S5 F5, TF1, JP4, 5 U2 VASI: Rnwy 25
REMARKS: Rnwy 7-25, 9995' avbl lndg and tkof dalgt hrs. 9766' avbl lndg rnwy 25 ngts due to 229' displaced threshold E end. 9245' avbl lndg rnwy 7 ngts due 750' displaced threshold W end. Rnwy 1-19, 6500' avbl lndg and tkof both directions dalgt operns and tkof ngts only. 6258' lndg rnwy 19 ngt operns only due 239' displaced threshold on NE end. 5875' abvl lndg rnwy 1 ngt operns only due 625' displaced threshold on SW end. Rnwy 32 threshold displaced 379' NW. 4027' avbl lndg rnwy 32.
TOWER 118.3 122.5R 278T GND CON 121.9
RADAR SERVICES: (BCN)
LAS VEGAS APP CON 121.1 125.9 122.5R 116.9T
LAS VEGAS DEP CON 119.4
TFC INFO Ctc APP CON on 121.1 30 mi out.
ASR Rnwy 25 Ceil 400 Vsby 1 mi Min Alt 2571. Rnwys 1, 7[1] Ceil 600 Vsby 1 mi Min Alt 2771
LAS VEGAS (H) BVORTAC 116.9 LAS on fld.
LAS VEGAS RBn H-SABZ 206 LAS 195° 8.7 nm to fld.
REMARKS: [1]Acft inbnd on FAP to rnwys 1 or 7 will dsnd not lwr than 3100 until pilot is notified by RAPCON that he has passed a pt 3 mi before the rnwy.

O MUNI *IFR* 2 SE FSS: RENO on Fld
4411 H90/16-34 (2) (S-100, T-200, TT-350) BL6, 8A, 9 S5 F5, JP1, 5 U2
TOWER 118.3 278T GND CON 121.9
APP CON 119.2 117.9T 254T
ILS 109.3 I-RNO Apch Brg 162°
(H) BVORTAC 117.9/RNO 229° 5.1 nm to fld
RBn SBH 254/RNO 161° 2.3 nm to fld

••• NEW HAMPSHIRE •••

CHESTER
RENIER FIELD *IFR* 4 S FSS: CONCORD (DL)
233 H70/17-35 (2) (S-127, T-200, TT-400) BL5, 11 S3 F4 U2 REIL: Rnwy 35
TOWER[1] 121.3 126.2 122.5R
MANCHESTER (L) BVORTAC 114.2 MHT 337° 4.2 nm to fld.
MANCHESTER RBn MHW 338/MHT 352° 3.5 nm to fld.
REMARKS: [1]Oper 1000-0300Z.

••• NEW JERSEY •••

NAFEC ATLANTIC CITY (POMONA) *IFR* 9 NW
FSS: MILLVILLE (LC 399-8096)
76 H100 13-31 (4) (MAX-60) BL4, 6, 8A, 9 S3 F5, JP4
REMARKS: Fee. BAK 9 arresting gear installed 2000' from threshold rnwy 13 and 1000' from threshold rnwy 31. Pendant 1-1 2" steel cable stretched across rnwy 3, 1 2-4" above surface with rubber doughnuts extending 6" above surface. Pendant may gyrate.
TOWER 119.5 128.4 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
ATLANTIC CITY APP CON 124.6 126.2 122.5R 119.5 108.6T
ATLANTIC CITY DEP CON 128.4
PAR Rnwy 13 Ceil 200 Vsby 1/2 mi Min Alt 276. Rnwys 4, 31 Ceil 300 Vsby 3/4 mi Min Alt 376
ASR Rnwys 4, 8, 13, 17, 22, 26, 31, 35 Ceil 500[1] Vsby 1 mi Min Alt 576
ILS 110.5 I-ACY Apch Brg 128° LOM: 254 AC
VHF DF available, contact tower
ATLANTIC CITY NAFEC VORTAC 111.3 XDB
ATLANTIC CITY NAFEC (L) VORTAC 108.6 Acy at NAFEC
REMARKS: [1]400 aux for rnwys 13, 17, 22, 22, 26, 31. ILS BC unusable

CALDWELL-WRIGHT 1 N FSS: TETERBORO
175 H47 4-22 (3) (MAX-20) BL4 S5 F5 U2
REMARKS: Rgt tfc rnwy 22, 27. Rnwy 14 clsd. Rnwy 32 lndgs only. Arpt attended 0800 to 2100.
FAA DEP PROC: Rnwy 27 acft shall not start crosswind leg until well past the school lctd 1.4 mi to the right of the extended rnwy centerline and 1.4 mi from the arpt. Rnwy 32 acft shall bear right as soon as practicable after take-off to avoid flying over the Fairfield township school lctd 1/4 mi NW of arpt and slightly left of the extended rnwy centerline.
TOWER[1] 126.5 122.5R
RADAR SERVICES:
NEWARK APP CON 127.6[2] 124.3[3] 122.7R 120.6 302 3.5R
NEWARK DEP CON 119.2 120.6
REMARKS: [1] Oper 1330Z-SS daily. [2]270°-089°. [3]090°-269°.

MORRISTOWN MUNI *IFR* 2 E FSS: TETERBORO (LC JE8-2196)
187 H40/4-22 (2) BL4, 6 S5 F5, JP1 U2
REMARKS: Dips first 800 ft rnwy 22. Ngt trng flts by non-based acft prohibited. Due obstns, ramp and txwys not ctld by twr. Use at pilots' discretion.
TOWER[1] 118.1 122.7R GND CON 121.7
NEWARK APP CON 120.6[2] 124.3[3] 120.6 122.7R
NEWARK DEP CON 119.2 127.6
REMARKS: [1]Oper 1200-0400Z. [2]270-089° [3]090-269°

NEWARK MUNI *IFR* 2 S FSS: TETERBORO (DL)
18 H70/4-22 (2) (MAX-55) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1 U2 REIL and VASI: Rnwy 29 RVR: Rnwy 4
RVV Rnwy 11, 22 and 29
REMARKS: US Customs lndg rgts arpt fee. 1465' (1520' MSL) twr 9 mi ENE
TOWER 118.3 126.2 122.7R 110.3T 109.3T 109.1T
CLRNC DEL 121.4 GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 120.6[2] 124.3[3] 122.7R 120.6 110.3T 109.3T
DEP CON 119.2 127.6
TFC INFO Inbnd tfc ctc APP CON on 126.2 25 mi out.

NEW JERSEY–*Continued*

NEWARK (Continued)
PAR Rnwy 4 Ceil 200 Vsby 1/2 mi Min Alt 218
ASR Rnwys 11, 29 Ceil 600[1] Vsby 1 mi Min Alt 618.
Rnwy 22 Ceil 900 Vsby 1 mi Min Alt 918
ILS 110.3 I-EWR Apch Brg 037°. BC unusable. LOM: 359/EW 109.1 I-ARK Apch Brg 217° LOM: 241/AR
VHF/DF available, contact tower.
RBn H-SAB 379/EWR 058° 1.0 NM to fld.
REMARKS: [1]Rnwy 11-maintain 700' until passing the 2.5 mi radar fix [2]270-089° [3]090-269°
VOT: 108.6

TETERBORO MUNI *IFR* 1 SW FSS: TETERBORO on Fld
7 H50/6-24 (3) (MAX-20) BL4, 8 S5 F5, JP1
REMARKS: Fee. Clsd to jet acft except prior pmsn. Rnwy 24 apch restricted by poleline-glide angle 6 to 1. 1465' (1520 MSL) twr 7.5 nmi SSE
TOWER 119.5 122.5R GND CON 121.9
RADAR SERVICES:
NEWARD APP CON 120.6 124.3
NEWARK DEP CON 119.2 127.6
ILS 109.3 I-TEB Apch Brg 060°. LOM: 219/TE
BC unusable

TRENTON
MERCER COUNTY *IFR* 4 NW FSS: PHILADELPHIA (DL)
213 H52/6-24 (3) (S-30, T-, TT-) BL4, 11 S5 F4, JP4, 5 U2 REIL: Rnwy 6
REMARKS: Fee. Rnwy 6 apch restricted by poleline-glide angle 9 to 1. Acft using rnwy 24 on tkof continue straight out to Delaware River before executing left turn.
TRENTON TOWER 120.7 122.5R
TRENTON GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R 109.3T
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
YARDLEY (H) BVORTAC 116.2/ARD 081° 4.6 nm to fld.
REMARKS: [1]270°-089°. [2]090°-269°.

*** NEW MEXICO ***

ALBUQUERQUE-SUNPORT/KIRTLAND AFB *IFR* 3 SE
FSS: ALBUQUERQUE on Fld
5352 H127/8-26 (4) (S-100, T-155, TT-445) BL4, 6, 8, 10 S5 F5, JP1, 4 U2 VASI: Rnwy 8
RVV: Rnwy 35
REMARKS: Tkofs rnwys 03 and 35 restricted to conventional type acft DC-3 and smaller. First 1500' apch and rnwy 17 not visible to twr.
ALBUQUERQUE TOWER 118.3 126.2 122.5R 119.2
CLRNC DEL 119.2
ALBUQUERQUE GND CON 121.9
RADAR SERVICES: (BCN)
ALBUQUERQUE APP CON 124.4 134.1 126.2 123.9 122.5R 121.1 113.2T 110.3T
ALBUQUERQUE DEP CON 121.1
TFC INFO Ctc APP CON on 123.9 25 mi out.
PAR Rnwy 8[1] Ceil 300 Vsby 3/4 mi Min Alt 5652
ASR Rnwys 3[1], 8[1], 17, 35 Ceil 400 Vsby 1 mi Min Alt 5752
ILS 110.3 I-ABQ Apch Brg 350° LOM: 278/AB
REMARKS: [1]500-1 1/2 rqrd for civil jet acft. VOT: 111.0
ALBUQUERQUE (H) BVORTAC 113.2/ABQ 077° 9.6 NM to fld
ALBUQUERQUE RBn SABH 230/ABQ 355° 2.6 NM to fld.

NEW MEXICO–*Continued*

HOBBS, LEA COUNTY *IFR* 4 W FSS: HOBBS on Fld.
3659 H63/3-21 (4) (S-115 T-200 TT-400) BL4, 6 S5 F4 U2
TOWER 118.3 126.2 122.5R 215T GND CON 121.9
HOBBS (L) BVOR 111.0/HOB 030° 3.5 nm to fld.

ROSWELL MUNI *IFR* 1 NW FSS: ROSWELL on Fld.
3623 H55/12-30 (4) (S-40, T-55, TT-) BL4 S5 F4
REMARKS: Rgt tfc rnwys 12, 17, 21, 26
TOWER[1] 118.5 122.5R GND CON 121.9
WALKER APP CON 123.8 126.2x 122.7R 120.2
WALKER DEP CON 123.8 122.7R
TFC INFO Ctc Walker APP CON 30 mi out on 123.8, 120.2 122.7R
(H) BVORTAC 116.1/Row 027° 4.9 nm to fld
RBn BH 305/Row 312° 7.9 nm to fld.
REMARKS: [1]Oper 1300-0500Z.

SANTA FE COUNTY MUNI *IFR* 9 SW FSS: SANTA FE on Fld.
6344 H83/2-20 (3) (S-45, T-60, TT-) BL4 S5 F4, JP4 U2
TOWER 126.2 122.5R 119.5 GND CON 121.9
(L) BVORTAC 110.6/SAF 332° 4.2 nm to fld.

*** NEW YORK ***

ALBANY COUNTY *IFR* 6 NW AOE FSS: ALBANY on Fld.
288 H50/1-19 (3) (S-110, T-200, TT-400) BL4, 6, 8A, 9 F5, JP1, 4 RVV: Rnwy 19
REMARKS: Fee. Rnwy 1 apch restricted by road-glide angle to 1. Rnwy 33 apch restricted by trees-glide angle 1 to
TOWER 119.5 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 125.0 124.7 122.5R 109.5T
DEP CON 125.2
ASR Rnwys 1, 19 Ceil 500 Vsby 1 mi Min Alt 788
ILS 109.5 I-ALB Apch Brg 191° LOM: 219/AL
(H) BVORTAC 116.9/ALB on fld.
REMARKS: VOT: 109.0

BETHPAGE
GRUMMAN-BETHPAGE *IFR* Adj W FSS: ISLIP
119 H66/15-33 (2) (MAX-25) BL4 F5, JP4, 5
REMARKS: Clsd to public. Rnwy 10 apch restricted by poleline-glide angle 5 to 1.
TOWER[1] 126.2 121.3 323T GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 135.4
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2330Z Mon-Fri. [2]054°-110°. [3]110°-160°
BETHPAGE RBn MH 323 BPA 257° 2.3 NM to fld

BINGHAMTON
BROOME COUNTY *IFR* 7 N FSS: BINGHAMTON on Fld.
1629 H56/16-34 (2) (S-120, T-160, TT-) BL4, 6, 12 S5 F5, JP1 RVV: Rnwy 34
TOWER 119.3 122.5R 114.3T 110.3T 112.1T
GND CON 121.9
RADAR SERVICES:
APP CON 118.6 DEP CON 126.1
ASR Rnwys 10, 16, 28, 34 Ceil 400 Vsby 1 mi Min Alt 2029
ILS 110.3 I-BGM Apch Brg 338° LMM: 203 BM

NEW YORK—Continued

NGHAMTON (Continued)
BINGHAMPTON (B) BVORTAC 114.3 BGM 076° 7.0 NM to fld.
BINGHAMPTON RBn MHW 317 BGM 338° 6.9 NM to fld.
REMARKS: ILS BC unusable

JFFALO
GREATER BUFFALO INTL *IFR* 5 E AOE
FSS: BUFFALO on Fld
719 H56 5-23 (2) (S-120, T-180, TT-400)
BL4, 6, 11 S5 F5, JP1, 4, 5 RVV: Rnwy 23
REIL: Rnwys 23 and 31
REMARKS: Fee. Ctn apch restricted rnwy 23. 4745 ft avbl lndg rnwy 23.
TOWER 120.5 122.5R
CLRNC DEL 124.7 GND CON 121.9
RADAR SERVICES:
BUFFALO APP CON 120.1 126.2 122.5R 123.7 110.3T
BUFFALO DEP CON 125.5
TFC INFO Inbnd acft ctc BUFFALO APP CON on 120.1 or 126.2 aprx 25 mi out.
ASR Rnwys 5, 23, 31 Ceil 400 Vsby 1 mi
Min Alt 1119, Rnwy 13 Ceil 500 Vsby 1 mi Min Alt 1219
ILS 110.3 I-BUF Apch Brg 232° LOM: 219 BU
BUFFALO (H) BVORTAC 116.4 BUF 287° 3.6 nm to fld
BUFFALO RBn BH 260 BUF 211° 0.9 nm to fld
VHF DF available, contact BUFFALO APP CON
VOT: 109.0

LVERTON
'ECONIC RIVER *IFR* 2 W FSS: ISLIP (DL)
75 H100/14-32 (2) (MAX-50) BL6 S5 F5, JP4, 5
REMARKS: Clsd to public.
TOWER[1] 121.3 126.2 122.5R 3023.5R 323T
GND CON 121.9
ILS[2] 110.7 I-CTO Apch Brg 048° LMM: 222 To
RIVERHEAD (L) BVORTAC 117.2 RVH 091° 4.6 nm to fld.
PECONIC RBn MHW 339 PIC 048° 7.2 nm to fld.
REMARKS: [1]Oper 1200-0500Z. [2]Lclzr and glide slope monitored automatic shutdown 2400-0800 Mon-Sat; all day Sun. MM and OM unmonitored some hrs.

MIRA
HEMUNG COUNTY *IFR* 5 NW FSS: ELMIRA on Fld
951 H56/6-24 (3) (MAX-69) BL5, 6, 8A, 9 S5 F5, JP1
U2
ELMIRA TOWER 121.1 122.5R ELMIRA GND CON 121.9
ELMIRA APP CON 121.1 122.5R 127.25[1]
ILS 109.1 I-ELM Apch Brg 239° BC restricted
ELMIRA (L) BVOR 113.7 ELM 006° 6.6 nm to fld
ELMIRA RBn SABH[2] 375 ELM 076 1.3 nm to fld
REMARKS: [1]For IFR acft operg Thompson Co Arpt, Ithaca, N.Y. [2]AB 1000-0400Z.

MINGDALE
EPUBLIC AVIATION CORP *IFR* Adj NE FSS: ISLIP
82 H75/14-32 (2) (MAX-25) L4 F4, JP4
REMARKS: Clsd to public. Rft tfc rnwy 32.
TOWER[1] 121.3 126.2 122.5R
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 126.05 123.7 122.7R
KENNEDY DEP CON 123.9[2] 134.1 121.1[3]
REMARKS: [1]Oper 1200-2030Z. [2]054°-110°. [3]110°-160°.

NEW YORK—Continued

ISLIP
LONG ISLAND *IFR* 7 NE FSS: ISLIP on Fld
98 H50 6-24 (3) (S-60, T-80, TT-) BL4, 6, 7, 12 S5
F5, TP1
REMARKS: Rnwy 28 apch restricted by trees-glide angle 1 to 1.
TOWER 119.3 126.2 122.5R 110.1T 3023.5R
GND CON 121.9
RADAR SERVICES:
KENNEDY APP CON 118.0 134.1 123.7 122.7R 118.4
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
ILS 108.3 I-ISL Apch Brg 057°
REMARKS: [1]054°-110°. [2]110°-160° LOM: 366/IS

NEW YORK
JOHN F KENNEDY INTL *IFR* 11 SE FSS: ISLIP (DL)
12 H146, 13R-31L (5) (S-100, T-185, TT-340) BL6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, 4 U2 VASI: Rnwy 13R
RVV: Rnwys 22L, 25L, 31R REIL: Rnwy 13L
RVR: Rnwys 31L, 4R
REMARKS: Fee. Clsd to fightertype, jet and turboprop acft excp with prior approval and to routine mil tfc. Rnwy 13R-31L, 14,572' with lndg threshold 13R displaced 2600' 31L displaced 3324'. Rnwy 7-25 clsd excp for taxiing acft. Rnwy 4L-22R extended to 11,350' with lndg threshold rnwy 22R displaced 3020'. 1465' (1520' MSL) twr 11 nmi NW
KENNEDY TOWER 119.1 134.1 122.7R 110.9T 109.5T
CLRNC DEL 121.65 KENNEDY GND CON 121.9
RADAR SERVICES: (BCN)
KENNEDY APP CON 118.0 134.1 123.7 122.7R 120.8 118.4 109.5T
KENNEDY DEP CON 123.9[1] 134.1 121.1[2]
TFC INFO Call Kennedy Tower on 120.8 or 127.05
PAR Rnwy 4R Ceil 200 Vsby 1/2 mi Min Alt 212
ASR Rnwy 4L Ceil 600 Vsby 1 mi Min Alt 612. Rnwys 22R, 25L Ceil 500 Vsby 1 mi Min Alt 512. Rnwys 7R, 31R Ceil 400 Vsby 1 mi Min Alt 412
ILS 109.5 I-JFK Apch Brg 043° LOM: 373/JF; 110.9 I-WY[3] Apch Brg 223° LOM: 392/IW; 111.5 I-RTH[4] Apch Brg 312°. BC unusable. LOM: 268/RT
KENNEDY (H) VORTAC 115.9 JFK on fld.
KENNEDY RBn MHW 373 JF on fld.
VHF/DF available, contact tower
REMARKS: [1]054°-110°, [2]110°-160°. [3]LOM unreliable due to intermittent interference from San Juan, Puerto Rico Rbn. [4]Glide slope unusable below 212' MSL due roughness.
VOT: 112.0

LA GUARDIA *IFR* 4 E FSS: TETERBORO (DL)
21 H60/13-31 (2) (S-80, T-105, TT-105) BL6, 8A, 9, 10, 11
S5 F5, JP1 U2 VASI: Rnwys 13 and 31 TPA: 1500
RVV: Rnwy 4
REMARKS: Fee. Rnwy 31 threshold displaced 175 ft NW. 5813 avbl lndg rnwy 31. Clsd to jet propelled acft, motorless & acft over 105,000 lbs unless prior permission. Rnwy 4 clsd to turbo jet acft lndg. Rnwy 22 clsd to turbojet acft tkof. 1465' (1520' MSL) twr 5 nmi WSW.
FAA DEP PROC: Rnwy 13-rgt turn and proceed over Flushing Meadow Park before turning on course.
TOWER 118.7 122.7R 113.1T 109.9T 108.5T 110.5T
CLRNC DEL 126.15 GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.7 122.7R 118.9 109.9T 108.5T 110.5T DEP CON 120.4 128.8
TFC INFO All VFR tfc inbnd ctc APP CON West of Hudson River 125.7, East of Hudson River 118.9
PAR[5] Rnwy 4 Ceil 400 Vsby 3/4 mi Min Alt 421

NEW YORK—Continued

LA GUARDIA (Continued)

ASR Rnwys 4, 13, 22 Ceil 700 Vsby 1 mi Min Alt 721. Rnwy 31 Ceil 600 Vsby 1 mi Min Alt 621 2 mi

ILS 109.9 I-LGA[1] Apch Brg 044° BC unusable; 108.5 I-GDI[2] Apch Brg., 135°; 110.5 I-URD[3] Apch Brg 224° 135° LOM: 385/UR BC unusable

(L) VOR 113.1/LGA 178° 0.4 nm to fld

VHF/DF[4] available, contact. APP CON

REMARKS: Flwg shutdown indef due arpt constrn: Rnwy 22 ILS and apch lgts; Rnwy 4 ILS, Rnwy 13 VASI; PAR adv svc to Rnwy 22. [1]Lclzr unusable below 2000′ MSL beyond 17 nmi. Lclzr and glide slope shut down UFN for rnwy constrn. LOM unusable beyond 9 nmi between 235-245° acct erroneous needle action. [2]Front crs unusable beyond 15 nmi below 2500′. BC unusable beyond 15 nmi below 3000′. [3]Lclzr shut down indefinitely due rnwy constrn. LOM subject to 30° oscillations in W quad. [4]VHF/DF coverage at 40 mi: 360-015, 4000′; 015-100°, 3000′; 100-110°, 2000′; 110-260°, 2500′; 260-280°, 3000′; 280-360°, 4000′. [5]PAR advisory service for rnwy 22 unavbl for indefinite period due rnwy constrn.

VOT: 109.0

NIAGARA FALLS MUNI *IFR* 4 E FSS: BUFFALO (DL)

590 H91/10L-28R (4) (S-90, T- , TT-) BL4, 6, 8A, 9 S3 F5

REMARKS: First 1000 ft rnwy 28R 10L clsd periodically due const. No signal SS-SR to indicate IFR conditions less than 3 mi and or ceil less than 1000 ft.

NIAGARA TOWER 118.5 126.2 122.7R 110.1T

NIAGARA GND CON 121.7

RADAR SERVICES:

BUFFALO APP CON 123.7 126.2 122.5R 120.1 110.3T 278T

BUFFALO DEP CON 125.5

ILS 110.1 I-IAG Apch Brg 277°. LOM: 329/IA BC unusable.

VHF/DF available, contact tower.

ROCHESTER-MONROE CO *IFR* 3 SW AOE FSS: ROCHESTER on Fld

560 H70/4-22 (5) (S-120, T-190, TT-320) BL4, 6, 8A, 9 S5 F5, JP1 U2 RVV: Rnwy 28

REMARKS: Rnwy 30 threshold displaced 690 ft NW. 2351 ft avbl indg rnwy 30. Fee for acft over 5000 lbs. No signal S5-SR to indicate IFR conditions.

TOWER 118.3 122.5R 278Tx GND CON 121.7

RADAR SERVICES: (BCN)

APP CON 124.0 120.7 122.5R

DEP CON 121.0

TFC INFO Ctc APP CON on 124.0

ASR Rnwy 1 Ceil 600 Vsby 1 1/2 mi Min Alt 1160.
Rnwy 7 Ceil 700 Vsby 1 1/2 mi Min Alt 1260.
Rnwy 10 Ceil 400 Vsby 1 1/2 mi Min Alt 960
Rnwy 28 Ceil 800 Vsby 1 1/2 mi Min Alt 1360

ILS[1] 109.5 I-ROC Apch Brg 277° LOM: 400/RO BC unusable

(L) BVOR 110.0/ROC at fld.

REMARKS: [1]Glide slope unusable below 760′ due crs roughness.

NEW YORK—Continued

SCHENECTADY COUNTY *IFR* 2 N FSS: ALBANY [illegible]

378 H70/4-22 (3) (S-50, T , TT) BL4, 6 S5 F5, JP4, 5 U2

REMARKS: Lgts prior req after 0300Z. First 100 ft apch [illegible] rnwy 10 not vis fm ctl twr. Rnwy 28, 15 and 33 apchs res[illegible] by trees -glide angle 1 to 1.

TOWER[1] 126.2 121.3 3023.5R 356T

RADAR SERVICES:

ALBANY APP CON 125.0 124.7 122.5R 109.5R

ALBANY DEP CON 125.2

VHF/DF available, contact tower.

GLENVILLE RBn[2] 356/GVI at fld

REMARKS: [1]Oper 1100-0300Z [2]Operated by county.

SYRACUSE

HANCOCK *IFR* 4 NE FSS: SYRACUSE or F[illegible]

421 H90/10-28 (3) (S-120, T-190, TT-350) BL4, 6, 14 S5 F5, JP4 RVV: Rnwy 28

REMARKS: Rnwy 6-24 limited to acft 12,500 lbs GWT or less.

SYRACUSE TOWER 126.2 122.5R 119.9

RADAR SERVICES (BCN)

SYRACUSE GND CON 121.7

SYRACUSE APP CON 126.2 122.5R 120.3 117.0T 109.9T

SYRACUSE DEP CON 125.6

ILS 109.9 I-SYR Apch Brg 278° LOM: 242 SY

(H) SYRACUSE (H) BVORTAC 117.0/SYR 131° 4.7 [illegible] fld.

SYRACUSE RBn SBH 350/SYR 100° 6.7 nm to fld.

UTICA

ONEIDA COUNTY *IFR* 7 NW FSS: UTICA or [illegible]

742 H60/15-33 (2) (S-60, T-80, TT) BL4, 6, 8A, 9 S5 F2 U2

REMARKS: Rgt tfc rnwy 9 & 15.

UTICA TOWER 118.1 122.5R 109.3T

UTICA GND CON 121.9

RADAR SERVICES: (BCN)

GRIFFISS APP CON 118.5 134.1 122.5R

GRIFFISS DEP CON 120.9

ILS 109.3 I-UCA Apch Brg 329° LMM: 254 CA

UTICA (L) BVOR 108.6/UCA 318° 11.6 nm to fld.

UTICA RBn MHW 275/UTI 329° 7.3 nm to fld.

WHITE PLAINS

WESTCHESTER COUNTY *IFR* 3 NE FSS: ISLIP (LC [illegible])

439 H65/16-34 (3) (S-60, T-220, TT) BL4, 8A, 9 S5 F5, JP5 U2

REMARKS: Rnwy 12 & 30 apchs restricted by trees-glide angle 1 to 1. Fee.

TOWER 119.7 126.2 122.5R 109.7T 3023.5Rx

GND CON 121.9

APP CON 121.2 122.5R 109.7T 3023.5Rx

ILS 109.7 I-HPN Apch Brg 162° LOM: 281 HP BC unusable

*** NORTH CAROLINA ***

ASHEVILLE MUNI *IFR* 9 S FSS: GREER (LC [illegible])

2161 H65/16-34 (1) (S-24, T-75, TT-125) BL6, 8A, 9 S5 F5, JP1, 4 U2 VASI: Rnwy 16 RVV: Rnwy 34

REMARKS: Rgt tfc NW.

TOWER 121.1 122.5R GND CON 121.9

APP CON 123.6 122.5R

NORTH CAROLINA—Continued

(VILLE (Continued)
ILS[1] 110.5 I-AVL Apch Brg 342° LMM: 227 VL
(L) BVORTAC 112.2 AVL 280° 10.4 NM to fld
RBn MHW 357 ABN 160° 5.8 NM to fld
REMARKS: [1]Lclzr unusable below 2516' MSL acct roughness. Glide slope unusable below 2310' MSL. ILS BC restricted

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ARLOTTE
OUGLAS MUNI *IFR* 4 W FSS: HICKORY (LC ED 2-7262)
748 H75, 5-23 (2) (S-50, T , TT)* BL4, 6, 8A, 9 S5
F5, JP1 U2 RVR: Rnwy 5
REMARKS: *(Rnwy 18-36-(S-60)) 1073[1] (1932[1] MSL) twr 10 mi ENE.
CHARLOTTE TOWER 118.1 126.2 122.5R 109.5T
CHARLOTTE GND CON 121.9
RADAR SERVICES: (BCN)
CHARLOTTE APP CON 120.5 126.2 122.5R 119.0 109.5T
CHARLOTTE DEP CON 124.0
ASR Rnwys 5, 18, 23[1], 36 Ceil 400 Vsby 1 Mi Min Alt 1148
ILS[2] 109.5 I-CLT Apch Brg 050° LOM: 242 CL
CHARLOTTE (L) BVORTAC 110.6 CLT on fld
REMARKS: [1]On apch, maint 1300 or above til 2.5 mi from apch end of rnwy 23 on final. [2]Lclzr unusable above 7000' acct freq interference. Glide slope unusable below 948' MSL. ILS BC unusable VOT: 112.0

'ETTEVILLE
RANNIS FIELD *IFR* 3 S FSS: FAYETTEVILLE on Fld
189 H50, 3-21 (2) (S-64, T-120, TT-200) BL4, 6 S5
F4, JP4
REMARKS: Rnwy 16 & 34 apch restricted by trees -glide angle 0 to 1.
FAYETTEVILLE TOWER 118.3 122.5R
FAYETTEVILLE GND CON 121.7
RADAR SERVICES: (BCN)
FAYETTEVILLE APP CON[1] 120.6
FAYETTEVILLE DEP CON 120.4
ILS[1] 110.5 I-GRA Apch Brg 034° LOM: 367/GR BC unusable
FAYETTEVILLE (L) BVOR 108.8 FAY on fld.
REMARKS: [1]Lclzr usable area restricted to 35° either side front crs. All other areas unusable.

ENSBORO-HIGH POINT *IFR* 7 W
FSS: RALEIGH (LC BR 56341)
927 H64/14-32 (2) (S-40, T-140, TT) BL4, 6, 8A, 9 S5
F4, JP5 U2 RVV: Rnwy 14
GREENSBORO TOWER 119.1 126.2 122.5R 109.9T
GREENSBORO GND CON 121.9
RADAR SERVICES: (BCN)
GREENSBORO APP CON 118.5 122.5R 120.9 116.2T 109.9T GREENSBORO DEP CON 124.6
ASR Rnwys 5, 14, 23, 32 Ceil 400 Vsby 1 mi Min Alt 1327
ILS[1] 109.9 I-GSO Apch Brg 138° LOM: 254/GS
GREENSBORO (H) BVOR 116.2/GSO 030° 3.0 nm to fld
REMARKS: [1]Glide slope unusable below 1127' MSL.

NORTH CAROLINA—Continued

RALEIGH-DURHAM *IFR* 9 NW FSS: RALEIGH on Fld
435 H75 5-23 (3) (S-111, T-135, TT-300) BL4, 6, 8A, 9 S5
F5, JP1 U2 RVV: Rnwy 5
REMARKS: No signal btn SS-SR indc gnd vsby of less than 2.6 NM and or ceil less than 1000 ft. Rnwy 14-32 and all 50 ft txwys lmtd to 50,000 lbs GWT
TOWER 119.3 126.2 122.5R 109.5T GND CON 121.9
RADAR SERVICES: (BCN)
RALEIGH APP CON[1] 125.3 122.5R 120.6
TFC INFO Inbnd acft ctc APP CON 25 mi out on 125.3.
RALEIGH DEP CON 120.6 124.8
ILS[1] 109.5 I-RDU Apch Brg 049° LOM: 382 RD
(H) BVORTAC 117.2 RDU at fld.
RBn H-SAB 350 RDU 229° 4.0 nm to fld.
REMARKS: [1]Glide slope unusable below 635' MSL.

WILMINGTON
NEW HANOVER CO *IFR* 2 NE FSS: NEW BERN (LC 762-7567)
31 H70, 16-34 (3) (S-120, T , TT)* BL4, 6, 8A, 9 S5
F5, JP5
REMARKS: *(S-90, T-120, TT-212) avbl rnwy 5-23 (S-30, T-48, TT-86) avbl rnwy 9-27
WILMINGTON TOWER 119.9 122.5R 110.3T 388T
CLRNC DEL 121.9
WILMINGTON GND CON 121.9
WILMINGTON APP CON 123.6 122.5R 110.3T
ILS[1] 110.3 I-ILM Apch Brg 343° LOM: 281/IL BC unusable
WILMINGTON (H) BVORTAC 117.0 ILM 201° 5.0 nmi to fld.
REMARKS: [1]Lclzr unusable MM to touchdown. Lclzr and glide slope shut down til May 15 for relctn.

WINSTON-SALEM
SMITH REYNOLDS *IFR* 2 NE
FSS: WINSTON SALEM (LC PA51731)
969 H66/15-33 (3) (S-40, T-85, TT-105) BL4, 6, 8, 12 S5
F5, JP5 U2 RVV: Rnwy 33. Rnwy 3-21 (S-56, T-85, TT-105)
REMARKS: Apch and rnwy lgts 15-33 oper 2300-0700 only.
WINSTON-SALEM TOWER[1] 118.7 126.2 122.7R 278T
WINSTON-SALEM GND CON 121.7
RADAR SERVICES:
GREENSBORO APP CON 118.5 122.5R 120.9 109.9T
GREENSBORO DEP CON 124.6
ILS[2] 110.3 I-INT Apch Brg 328° LOM: 317/IN BC unusable
REMARKS: [1]Oper 1200-0400Z. [2]Glide slope unusable below 1069' MSL.

••• NORTH DAKOTA •••

BISMARCK MUNI *IFR* 2 SE FSS: BISMARCK on Fld
1653 H69/12-30 (3) (S-70, T-95, TT-150) BL4, 6, 8 S5
F4 RVV: Rnwy 30
REMARKS: Rnwys 17-35, 2-20 and E-W txwy restricted to acft over 26,000 lbs except when auth by twr. First 800' rnwy 12 clsd to lndg acft.
TOWER 118.3 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.3
ILS 110.3 I-BIS Apch Brg 306° LOM: 215/BI
(L) BVOR 116.5/BIS 272° 3.6 NM to fld
RBn BH 230/BIS 252° 1.9 NM to fld

NORTH DAKOTA—Continued

FARGO

HECTOR FIELD *IFR* 2 NW FSS: FARGO on Fld
900 H91/17-35 (3) (S-90, T-120, TT) BL4, 6, 8 S5 F5, JP1, 4 U2 RVV: Rnwys 17, 35
FARGO TOWER 118.3 122.5R
FARGO GND CON 121.9
VFR ADV Ctc APP CON 25 mi out on 125.8
FARGO APP CON 125.8 110.3T 365T
ILS 110.3 I-FAR Apch Brg 351° LOM: 219/FA
FARGO (H) BVORTAC 116.2/FAR 360° 9.2 NM to fld
FARGO RBn BH 365/FAR 274° 0.8 NM to fld

*** OHIO ***

AKRON MUNI *IFR* Adj SE AOE FSS: AKRON on Fld
1059 H53/7-25 (4) BL4, 6, 11 S5 F5, JP1
REIL: Rnwys 7 and 25
TOWER 120.1 122.7 110.9T
REMARKS: Poles E. Obstns lgt inop SE hill apch rnwy 32
GND CON 121.9
RADAR SERVICES:
AKRON-CANTON APP CON 125.5 126.2 122.5R 109.5T
AKRON-CANTON DEP CON 118.6
ILS 110.9 I-AKR Apch Brg 246° LOM: 362/AKR
(L) BVORTAC 114.6/ACO 255° 12.3 NM to fld
RBn MHW 362/AKR 246° 3.7 NM to fld

AKRON-CANTON *IFR* 10 SE FSS: AKRON
1228 H56/1-19 (4) (S-100, T-135, TT-210) BL4, 6, 11 S5 F5, JP1 RVV: Rnwy 1 REIL: Rnwy 23
REMARKS: Down drafts or turbulence frequently encountered apch end rnwys 5, 23, 32 when wind velocity exceeds 15 knots. Ctc twr prior entering ILS apch zone; avoid tfc patn of Akron Muni arpt.
TOWER 126.2 122.5R 118.3 109.5T
GND CON 121.7
RADAR SERVICES: (BCN)
APP CON 125.5 126.2 122.5R 109.5T
DEP CON 118.6
ASR Rnwys 1, 5, 9, 14, 19, 23, 27, 32 Ceil 400 Vsby 1 mi Min Alt 1628
ILS 109.5 I-CAK Apch Brg 006° LOM: 233/CA
REMARKS: VOT: 112.0

COVINGTON, KY (CINCINNATI, OHIO)

GREATER CINCINNATI *IFR* 9 SW Cincinnati FSS: CINCINNATI
890 H86/18-36 (3) (S-120, T-200, TT-345) BL4, 6, 8 S5 F5 REIL: Rnwy 27
REMARKS: Rnwy 4-22 clsd to acft over 30,000 lbs. Fee.
CINCINNATI TOWER 118.3 126.2 122.7R
CLRNC DEL 121.3
CINCINNATI GND CON 121.7
RADAR SERVICES:
CINCINNATI APP CON 124.7 126.2 122.7R 119.7
CINCINNATI DEP CON 121.0
ASR Rnwys 4, 9, 18, 36 Ceil 400 Vis 1 mi Min Alt 1290. Rnwys 22, 27 Ceil 700 Vis 1 mi Min Alt 1590
ILS 109.9 I-CVG Apch Brg 360° LOM: 287/CV 110.9 I-SIC Apch Brg 180° LOM: 351/SI
CINCINNATI (L) BVORTAC 112.9/CVG 043° 2.3 nm to fld
VHF/DF available, contact tower or radar
REMARKS: VOT: 108.4

OHIO—Continued

CINCINNATI MUNI-LUNKEN FLD *IFR* 3 SE
FSS: CINCINNATI on Fld
488 H61/2R-20L (4) (Max-45) BL4, 6, 8A, 9 S5 F4, JP4 U2
LUNKEN TOWER 126.2 122.5R 118.7
LUNKEN GND CON 121.9
RADAR SERVICES:
CINCINNATI APP CON 119.7 126.2 124.7 122.7R 112.9T CINCINNATI DEP CON 121.0
CINCINNATI RANGE SABRAZ 335/LUK 227° 4.3 NM to fld

CLEVELAND

BURKE LAKEFRONT Adj N FSS: CLEVELAND CL
584 H52/6-24 (1) (S-31, T-37, TT-55) BL6 S5 F4, JP1 U2
REMARKS: Fee.
LAKEFRONT TOWER[3] 126.2 122.5R 120.9
LAKEFRONT GND CON 121.9
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 1200-0400Z

CLEVELAND-HOPKINS INTL 9 SW AOE
FSS: CLEVELAND on Fld
792 H90/5R-23L (5) (S-54, T-78, T-126)* BL4, 6, 8A, 9, 11 S5 F5, JP1, 4 U2 VASI: Rwy 23R RVR: Rnwy 5R
REMARKS: *(S-125, T-188, TT-338) avbl rnwy 9-27.

OHIO, OKLA.

CLEVELAND TOWER 119.9 126.2 122.7R
CLRNC DEL 127.4 CLEVELAND GND CON 121.7
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2] 110.7[3] 109.9T CLEVELAND DEP CON 121.0
ASR Rnwys 5R, 5L, 9, 18R, 18L, 23R, 23L, 27, 36R, 36L Ceil 500 Vsby 1½ mi Min Alt 1292
ILS 109.9 I-CLE Apch Brg 054° 110.7 I-CEE[3] Apch Brg 277°
CLEVELAND (H) BVORTAC 113.6/CLE 081° 13.9 NM to fld
CLEVELAND RBn H-SAB 344/CLE 069° 0.8 NM to fld
VHF/DF available, contact tower
REMARKS: [1]270°-089° [2]090°-269°. [3]ILS unusable beyond 1030' MSL due lclzr crs roughness.
VOT: 110.4

COLUMBUS MUNI *IFR* 6 E FSS: COLUMBUS on Fld
816 H107/10R-28L (5) (S-100, T-200, TT-370)* BL4, 6, 8A, 9, 11 S5 F5, JP1, 4 U2 RVV: Rnwy 10L
REIL: Rnwys 10R, 28R
REMARKS: *(S-180, T-200, TT-400) avbl rnwy 10L-28R. Due non-vsby some areas of fld, ctc twr.
TOWER 126.2 121.1 109.1T 3023.5R
CLRNC DEL 121.3 GND CON 121.9
RADAR SERVICES:
APP CON 119.0 126.2 125.4 122.5R 109.5T 3023.5R DEP CON 120.5 126.2
ASR Rnwys 10R, 10L, 13, 19, 23, 28R, 28L, 31 Ceil 500 Vsby 1 mi Min Alt 1316. Rnwys 1, 5 Ceil 600 Vsby 1 mi Min Alt 1416
ILS 109.1 I-CBP Apch Brg 096° LOM: 271 CB 108.5 I-CMH[1] Apch Brg 276° LOM: 245 CM
VHF/DF available, contact tower
RBn BH 391/CMH 070° 1.0 NM to fld

OHIO—Continued

)LUMBUS (Continued)
REMARKS: [1]Front crs unusable above 4000' MSL beyond 11 nmi.
VOT: 111.0

YTON
JAMES M COX-DAYTON MUNI *IFR* 9 N FSS: DAYTON on Fld
1008 H70 6-24 (2) (S-120, T-180, TT-400) BL4, 6, 8A, 9, 11
S5 FS. JP1 U2 RVV: Rnwy 6 REIL: Rnwy 24
REMARKS: P-line SE. 1096' TV twr 10 mi S.
DAYTON TOWER 119.5 126.2 122.5R
CLRNC DEL 125.2 DAYTON GND CON 121.9
RADAR SERVICES: (BCN)
DAYTON APP CON 118.0 122.7R 111.6T 110.3T
DAYTON DEP CON 119.9
ILS 110.3 I-DAY Apch Brg 056° LOM: 356 DA
DAYTON (H) BVORTAC 117.5 DAY 131° 10.8 nm to fld.
REMARKS: VOT: 111.0

NSFIELD MUNI 3 N FSS: [1]MANSFIELD on Fld
1296 H90, 14-32 (2) (S-75, T-100, T-) BL4, 6, S5
F4, JP4 U2 RVV: Rnwy 32
TOWER 119.3 122.5R 110.5T GND CON 121.9
APP CON 124.7 122.5R 110.5T 108.8T
ILS 110.5 I-MFD Apch Brg 320° LOM: 374 MF
(L) BVORTAC 108.8 MFD 130° 3.5 NM to fld.
RBn MHW 374 MF 320° 4.0 NM to fld.
REMARKS: ILS shut down until June 1. LOM is MHW facil.

RINGFIELD MUNI *IFR* 5 S FSS: DAYTON (LC FA 2-4562)
1049 H90/5-23 (3) (S-190, T-200, TT-380) BL4 S5
F4, JP4
TOWER [2]120.7 126.2 GND CON 121.7
RADAR SERVICES: (BCN)
DAYTON APP CON [1]118.4 DAYTON DEP CON 118.4
134.1
SPRINGFIELD RBn 341 SGH 235° 2.6 NM to fld.
REMARKS: [1]All IFR tfc lndg this area call DAYTON APP CON. [2]Oper 1245-2130Z daily clsd holidays.

.EDO EXPRESS *IFR* 9 SW FSS: FINDLAY (LC 242-4171)
684 H87, 7-25 (2) (S-107, T-163, TT-287) BL4, 6, 8A, 9 S5
FS, JP4 U2 RVV: Rnwy 7
TOLEDO TOWER 118.1 126.2 122.5R 109.7T
TOLEDO GND CON 121.9
RADAR SERVICES: (BCN)
TOLEDO APP CON 123.8 128.0 122.5R 113.1T
109.7T TOLEDO DEP CON 119.2
ASR Rnwys 7, 16, 25, 34 Coil 400 Vsby 1 mi Min Alt 1084
ILS 109.7 I-TOL Apch Brg 069° LOM: 219 TO
WATERVILLE (L) BVORTAC 113.1 V WV 320° 10.5 NM to fld.

LOUGHBY
)ST NATION *IFR* 2 N FSS: CLEVELAND (DL)
626 H50 9-27 (3) BL4, 11 S5 F4, JP4
REIL: Rnwys 5, 23
REMARKS: Fee. Rnwy 9, 27 and 36 restricted by poleline-glide angle 4 to 1 and less.
TOWER[3] 120.7 122.5R
RADAR SERVICES:
CLEVELAND APP CON 124.0[1] 122.7R 118.5[2]
CLEVELAND DEP CON 121.0
(T) VOR 110.2/LNN at fld
RBn MH 263/LNN at fld

OHIO—Continued

WILLOUGHBY (Continued)
REMARKS: [1]270°-089° [2]090°-269° [3]Oper 0230-1430Z

YOUNGSTOWN MUNI *IFR* 10 N FSS: YOUNGSTOWN on Fld
1196 H75 14-32 (3) (S-116, T-160, TT-270) BL4, 6, 8 S5
F4 8A, 9 TF-1 U2 RVV: Rnwy 32
REMARKS: Rnwy 5 apch restricted by brush-glide angle 1 to 1.
TOWER 119.5 126.2 122.5R GND CON 121.9
APP CON 118.0 126.2 122.5R 110.1T
ILS 110.1 I-YNG Apch Brg 320° LOM: 338 YN
VHF DF available, contact tower.
(L) BVOR 109.0/YNG 183° 4.1 nmi to fld.
HUBBARD RBn MHW 408 HBD 320° 8.6 nmi to fld.

••• OKLAHOMA •••

LAWTON MUNI *IFR* 2 S FSS: WICHITA FALLS (LC EL5-1323)
1109 H54 (1) BL4 S5 FS JP1
REMARKS: P-line, ant NE
TOWER:[1] 119.9 122.5R GND CON 121.9
TFC INFO: Ctc Fort Sill APP CON 118.6 122.5R
DEP CON 118.6
RADAR SERVICES:
ASR Rnwy 35 Coil 400 Vsby 1 mi Min Alt 1509
(L) BVOR 108.2 LAW 347° 4.1 nm to fld.
REMARKS: [1]Opers 1300-0500Z.

MUSKOGEE
DAVIS FLD *IFR* 6 S FSS: TULSA (DL)
610 H72 13-31 (2) (S-60, T-160, TT-) BL6, 8A, 9
TOWER[1] 119.2 126.2
MUSKOGEE RBn MHW 306/MKO on fld
REMARKS: [1]1430-2230Z

OKLAHOMA CITY
WILEY POST *IFR* 7 NW FSS: OKLAHOMA CITY on Fld
1303 H54 17-35 (3) BL4 S5 F4, JP4 U2
REMARKS: Rgt tfc rnwys 12 and 17.
TOWER[1] 119.7 122.5R GND CON 121.7
RADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5
OKLAHOMA CITY DEP CON 121.1
REMARKS: [1]Oper 1200-0400Z.

WILL ROGERS WORLD *IFR* 6 SW FSS: OKLAHOMA CITY (DL)
1284 H98/17-35 (3) (S-120, T-160, TT) BL4, 6, 8A, 9, 10
S5 F5, JP1, 4 U2 VASI: Rnwy 17 RVV: Rnwy 35
REMARKS: Rnwy 3-21 and txwy (C-1) W side rnwy 3 restricted to 15000 lbs or less.
TOWER 118.3 126.2R 122.7R GND CON 121.9
RADAR SERVICES: (BCN)
OKLAHOMA CITY APP CON 119.3 134.1x 122.5R 120.5 OKLAHOMA CITY DEP CON 121.1
ASR Rnwy 17, 35 Coil 400 Vsby 1 mi Min Alt 1684
ILS[1] 109.9 I-OKC Apch Brg 350° LOM: 219 OK
OKLAHOMA CITY (H) BVORTAC 115.0/OKC 097° 8.1 nmi to fld.
OKLAHOMA CITY RBn SABH 350/OKC 091° 1.6 nmi to fld.
TULAKES RBn[2] MHW 406/TWO 170° 4.0 nmi to fld.
REMARKS: [1]Glide slope unusable below 1417' MSL. [2]Lctd on back crs Oklahoma City lclzr.
VOT: 108.8

OKLAHOMA—Continued

TULSA INTL *IFR* 5 NE **FSS:** TULSA on Fld
674 H100/17L-35R (5) (S-200, T-200, TT-400) BL4, 6, 8A, 9, 10 S5 F5, JP1, 4 U2 **RVR:** Rnwy 35R
REMARKS: Rgt tfc rnwys 17 R, 21R. Rnwy 35L thsld displcd 510', 3690' avbl for tkof. 1175' (2147' MSL) twr 9.5 mi E
TOWER 118.7 126.2 122.5R
CLRNC DEL 124.0 **GND CON** 121.9
RADAR SERVICES: (BCN)
APP CON 119.1 122.5R 110.3T **DEP CON** 120.7
TFC INFO Ctc APP CON on 119.1 25 mi out
ASR Rnwys 17L, 26[1], 35R Ceiling 400 Vsby 1 mi
Min Alt 1074
ILS 109.7 I-DWE [2]Apch Brg 174° BC unusable LOM: 317/DW I-TUL [3]Apch Brg 354° BC unusable LOM: 338/TU ILS's not operd simultaneously
(H) BVORTAC 114.4/TUL 260° 4.3 NM to fld
RBn SABH 245/TUL 219° 0.9 NM to fld
REMARKS: [1]500-1 required when apch is made until position is estab over 910 stack 3 mi E. [2]Lclzr unusable from MM to touchdown. [3]Front crs unusable above 6600' MSL. BC unusable above 4600' MSL; unusable for automatic apchs. Both systems not operd simultaneously.
VOT: 109.0

TULSA RIVERSIDE *IFR* 5S **FSS:** TULSA (LC TE 8-3316)
624 H40(1) BL4 S5 F4 U2
TOWER:[1] 118.1 **GND CON** 121.7
REMARKS: [1]0600-2200Z

OREGON

EUGENE

MAHLON-SWEET FLD *IFR* 7 NW **FSS:** EUGENE on Fld
365 H55/16-34 (2) (S-100, T-200, TT-380) BL4, 6, 8A, 9 S5 F4, JP1 U2 **RVV:** Rnwy 16
EUGENE TOWER 118.9 122.5R
EUGENE APP CON 118.9 122.5R 112.9T 109.5 T
EUGENE GND CON 121.9
ILS 109.5 I-EUG Apch Brg 159° LOM: 227/EU
EUGENE (L) BVORTAC 112.9/EUG on fld
EUGENE RNG SBRAZ 248/EO 151° 3.7 NM to fld.

KLAMATH FALLS

KINGSLEY FLD *IFR* 4 SE **FSS:** KLAMATH FALLS on Fld
4092 H103/14-32 (3) (S-100, T-200, TT380) BL4, 6, 8A, 9 S5 F4, JP1 U2
TOWER 118.5 126.2 122.5R 269T
GND CON 121.9
KLAMATH APP CON 118.5 126.2 122.5R 115.9T 242T
ILS[1] 109.5 I-LMT Apch Brg 318°
KLAMATH FALLS (L) BVORTAC 115.9/LMT on fld
KLAMATH FALLS RNG SBRAZ 242/KL 345° 1.5 NM to fld.
KLAMATH FALLS RBn MHW 218/LFA 318° 10.5 NM to fld.
REMARKS: [1]Flag activity may be experienced at procedure turn alt beyond 6.5 nmi 20° E of cntrline extended.

MEDFORD MUNI *IFR* 2 N **FSS:** MEDFORD on Fld
1330 H54/14-32 (2) S-80, T-120, TT-180) BL5, 6, 8A, 9 S5 F4, TP1 U2 **RVV:** Rnwy 14
TOWER 118.3 126.2 122.5R 278T
GND CON 121.9
APP CON 119.8 110.3T 113.6T
ILS[1] 110.3 I-MFR Apch Brg 139° LOM: 394/MF
(H) BVORTAC 113.6/MFR 145° 6.3 NM to fld.

OREGON—Continued

MEDFORD (Continued)
RNG SBRAZ 263/ME 160° 2.1 NM to fld.
VHF/DF[2] available, contact tower.
REMARKS: [1]ILS not certified for automatic apchs. [2]VHF DF coverage 40 nmi at MEA excp 360-015°, 9000', 015-030°, 10,000'; 030-057°, 11,000'; 120-210°, 13,500', 315-350°, 8500'; 350-360°, 8500'; 057-075°, 30 nmi at 11,000'; 075-120°, 30 nmi at 13,500'; 210-225°, 30 nmi at 12,000'; 225-250°, 30 nmi at 10,500'.

PENDLETON MUNI *IFR* 2 NW **FSS:** PENDLETON on Fld
1493 H63/7L-25R (4) (S-70, T-100, TT-170) BL4, 6, 8A, 9 S5 F4 U3 **RVV:** Rnwy 25
REMARKS: Rnwy 25L threshold displaced 821' W. 3029 ft avbl lndg rnwy 25L, 7R-25L dalgt operns only lgt planes.
TOWER 118.7 122.5R 3023.5Rx 278T
GND CON 121.9
APP CON 118.7 114.7T 3023.5Rx 341T
ILS 110.3 I-PDT Apch Brg 250° LOM: 206 DT
(H) BVORTAC 114.7/PDT 071° 3.6 NM to fld.
RNG SABRAZ 341/PN 259° 1.7 NM to fld

PORTLAND INTL *IFR* 4 NE **FSS:** PORTLAND on Fld
26 H88/10R-28L (3) (S-100, T-200, TT-400) BL5, 6, 8A, 9 S5 F5, JP4 U2 **RVV:** Rnwy 28R **RVR:** Rnwy 10R
TOWER 118.7 126.2 122.7R **CLRNC DEL** 119.0
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.1[2] 126.2 122.7R 119.8[3] 109.9T
DEP CON 124.9
TFC INFO Ctc APP CON
PAR Rnwy 10R Ceil 200 Vsby ½ mi Min Alt 226
ASR Rnwys 10R[1], 28R Ceil 700 Vsby 1 mi Min Alt 726 Rnwy 20 Ceil 800 Vsby 1 mi Min Alt 626
ILS 109.9 I-PDX Apch Brg 098° LOM: 201 DX 111.3 I-IAP Apch Brg 278° LOM: 359/AP
(L) BVORTAC 116.6/PDX 159° 9.2 NM to fld.
RNG SABRAZ 332/PO 155° 2.9 NM to fld.
VHF/DF available, contact tower.
REMARKS: [1]Min alt over 3-mi radar fix inbnd on final. [2]270-089° [3]090-269°.
VOT: 111.0

SALEM-MCNARY FLD *IFR* 1 SE **FSS:** PORTLAND FSS
207 H50/13-31 (2) (S-66, T-88, TT-75) BL4, 6 S5 F4 U1 **RVV:** Rnwy 31
REMARKS: Rnwy 16-34 unlgtd clsd daily fm 30 mins before SS til 30 mins after SR and when wea is below VFR min
ILS 110.3 I-SLE Apch Brg 309° LOM: 266 SL
REMARKS: [1]Non FAA monitored.

TROUTDALE Adj NW **FSS:** PORTLAND FSS
36 H46/7-25 (1) (Max-10) BL4 S5 F4 U2
RVV: Rnwy 7
REMARKS: Rnwy 7 threshold displaced 400 ft E. 4241 ft avbl lndg rnwy 7. Rnwy 25 threshold displaced 500 ft E. 4141 ft avbl lndg rnwy 25.
TOWER 120.5 122.5R **GND CON** 121.7
RADAR SERVICES:
PORTLAND APP CON 118.1[1] 119.8[2]
PORTLAND DEP CON 124.9
REMARKS: [1]270-089° 090-269°

••• PENNSYLVANIA •••

LENTOWN-BETHLEHEM-EASTON *IFR* 3 NE
FSS: ALLENTOWN on Fld
388 H62/6-24 (4) (S55, T-76, TT-125) BL4, 6, 8A, 9 S5
F5 U2 RVV: Rnwy 6
REMARKS: 5210' avbl lndg rnwy 24. Rnwy 14-32 open for ngt opern 2415' btn threshold lgts plus 175' of pavement SE of rnwy 32 threshold lgts. Threshold lgts apch end rnwy 32 offset to sides.
ALLENTOWN TOWER 120.5 122.5R 233T
CLRNC DEL 121.9
ALLENTOWN GND CON 121.9
ALLENTOWN APP CON 118.2 122.5R 117.5T 110.7T 321T
ILS 110.7 I-ABE Apch Brg 061° LOM: 400 AB
ALLENTOWN (L) BVORTAC 117.5 ABE 180° 4.1 NM to fld

ALLENTOWN RNG SBMAZ 321 AE 195° 2.5 NM to fld.
REMARKS: VOR unusable below 3500' MSL beyond 26 NM 020°-060°.

IE
ORT ERIE *IFR* 5 SW FSS: ERIE on Fld
732 H50/6-24 (3) (S-65, T-102, TT-190) BL4, 6, 8A, 9, 11
S5 F4, JP1 U2 RVV: Rnwy 24 REIL: Rnwy 24
TOWER 118.1 122.5R 110.3T GND CON 121.9
APP CON 119.0 122.5R 110.3T
ILS[1] 110.3 I-ERI Apch Brg 059° LOM: 349 ER
BC unusable
ERIC (H) BVORTAC 112.7 ERI 059° 6 NM to fld
ERIC RBn MHW 872/ ERI 239° 3.6 NM to fld
REMARKS: [1]Glide slope unusable MM to touchdown.

RRISBURG-YORK STATE *IFR* 3 S FSS: HARRISBURG on Fld
347 H50/8-26 (3) (S-65, T-105, TT-185) BL4, 6, 8A, 9 S5
F4, JP1 U2 RVV: Rnwy 8
REMARKS: Rgt tfc rnwys 20 & 26. wt limit 130,000 lbs.
HARRISBURG TOWER 119.5 126.2 122.5R 118.8 109.1T
HARRISBURG GND CON 121.9
RADAR SERVICES: (BCN)
HARRISBURG APP CON 120.9 126.2 122.5R 109.1T
HARRISBURG DEP CON 118.8
ASR Rnwys 8, 30 Ceil 1100 Vsby 2 mi Min Alt 1447.
Rnwy 26 Ceil 600 Vsby 1½ mi Min Alt 947
ILS 109.1 I-HAR Apch Brg 079° LOM: 219/HA
BC unusable
HARRIBURG (L) BVORTAC 112.5/HAR 108° 7.5 NM to fld.
HARRISBURG RNG SBMRAZ 338/HR 118° 0.9 NM to fld.

LADELPHIA
ORTH PHILADELPHIA *IFR* 10 NE
FSS: PHILADELPHIA on Fld
120 H50/6-24 (2) (Max-30) BL4, S5 F4, JP1 U2
REMARKS: Rnwy 6 apch restricted by poleline.
TOWER 121.3 126.2 122.5R 112.0T
GND CON 121.9
RADAR SERVICES:
PHILADELPHIA APP CON 127.2[1] 123.8[2] 122.7R
PHILADELPHIA DEP CON 119.0[1] 128.55[2]
(T) VOR 112.0/PNE at fld.
RBn MHW 343/PNE 238° 2.4 NM to fld.
REMARKS: [1]270°-089° [2]090°-269°

PENNSYLVANIA—*Continued*

PHILADELPHIA INTL *IFR* 5 SW FSS: PHILADELPHIA (DL)
14 H95 9-27 (3) (S-120, T-200, TT-400) BL4, 6, 8A, 9 S5
F5, JP1, 4, 5 U2 RVR: Rnwy 9
REMARKS: Rnwy 22 & 27 apch restricted by fence-glide angle 1 to 1. Ctn-const vic rnwy 27.
TOWER 118.5 122.7R CLRNC DEL 127.7
GND CON 121.9
RADAR SERVICES:
APP CON 127.2[1] 123.8[2] 122.7R
DEP CON 119.0[1] 128.55[2]
PAR Rnwy 9 Ceil 200 Vsby 1 2 mi. Min Alt 214
ASR Rnwys 9, 17, 27, 35 Ceil 500 Vsby 1 mi Min Alt 514
REMARKS: [1]Glide slope unusable below 100' MSL. [2]AB 10:00-05:00 Z.
VHF DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°
VOT: 111.0

PITTSBURGH
ALLEGHENY COUNTY *IFR* 4 S FSS: PITTSBURGH on Fld
1252 H55. 9-27 (3) (S-70, T-120, TT-210) BL6, 8A, 9, 11
S5 F5, JP5 U2 REIL: Rnwy 9, 23 and 30
TOWER 121.1 126.2 122.5R 109.1T GND CON 121.7
RADAR SERVICES:
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.7[2]
PITTSBURGH DEP CON 125.9
ILS 109.1 I-AGC Apch brg 275° BC unusable
LMM: 201 GC
(H) BVORTAC 117.1 AGC 052° 6.4 NM to fld
RBn[3] H-SAB 254 AGC 082° 2.0 NM to fld
REMARKS: [1]270°-089° [2]090°-269° [3]Brgs. unrel. SW quad. beyond 20 NM all alts.

GREATER PITTSBURGH *IFR* 12 NW FSS: PITTSBURGH (DL)
1203 H105. 10L-28R (4) (S-120, T-200, TT-400)
BL4, 6, 8A, 9, 10, 11, 14, 15 S5 F5, JP1, 4 VASI: Rnwy 28L RVV: Rnwy 10L REIL: Rnwy 32
REMARKS: Fee. Steep drop-off apch end rnwy 28. Rnwy 28L threshold displaced 491 ft W. 7509 ft avbl lndg rnwy 28L. US Customs lndg rts arpt.
PITTSBURGH TOWER 119.1 126.2 122.7R 110.3T 302T[4]
CLRNC DEL 121.3 PITTSBURGH GND CON 121.9
RADAR SERVICES: (BCN)
PITTSBURGH APP CON 123.6[1] 134.1 122.7R 118.7[2]
PITTSBURGH DEP CON 125.9
TFC INFO Ctc Radar APP CON on 123.6 when approaching fm NW & NE, and on 118.7 fm SE & SW.
PAR Rnwy 28L Ceil 200 Vsby ½ mi Min Alt 1368
ASR Rnwys 5, 14, 23, 28R, 32 Ceil 500 Vsby 1 mi Min Alt 1703. Rnwy 10L 10R 28L Ceil 400 Vsby 1 mi Min Alt 1603.
ILS 110.3 I-GPB Apch Brg 277° LOM: 323/6P 111.7
I-LXB[3] Apch Brg 097° BC unusable
VHF/DF available, contact tower.
REMARKS: [1]270°-089° [2]090°-269°. [3]Glide slope unusable below 1450' MSL due roughness.; tmprly displaced 50' closer cntrline. [4]To be decmsnd Apr 19.
VOT: 111.2

PENNSYLVANIA–*Continued*

READING

GENERAL SPAATZ FIELD *IFR* 2 NW (001° 3.9 NM from RD LOM)
343 H51/18-36 (3) (S-30, T-45, TT-175) BL4, 6, 7, 12 S5 F4, JP4 U2 FSS: HARRISBURG (LC 376-3045)
REMARKS: Rgt tfc rnwy 5, 13 and 36.
READING TOWER 119.9 126.2 122.5R 109.5T
READING GND CON 121.9
READING APP CON 119.9 126.2 122.5R 109.5T
ILS 109.5 I-RDG Apch Brg 001° BC unusable
VHF/DF available, contact tower.

WILKES-BARRE-SCRANTON *IFR* 9 NE
FSS: WILKES-BARRE on Fld
956 H52/4-22 (3) (S-90, T-145, TT-240) BL4-6, 8A, 9 F5, JP4 RVV: Rnwy 4
REMARKS: Rgt tfc rnwys 10, 16, 22, 28. Lndg fee except for pvt owned acft.
FAA DEP PROC: Rnwy 16, 22 Right hand tfc pattern.
WILKES-BARRE TOWER 120.1 122.5R 109.9T
WILKES-BARRE GND CON 121.9
RADAR SERVICES:
WILKES-BARRE APP CON 124.5 122.5R 109.9T
WILKES-BARRE DEP CON 126.3
ASR Rnwy 4 Ceil 1000 Vsby 2 mi Min Alt 1956. Rnwy 10 Ceil 900 Vsby 1½ mi Min Alt 1856. Rnwy 22 Ceil 800 Vsby 1½ mi Min Alt 1756
ILS[1] 109.9 I-AVP Apch Brg 043° LOM: 257/AV BC Unusable
WILKES-BARRE (L) BVORTAC 117.8/AVP 242° 13.5 nmi to fld.
CRYSTAL LAKE RBn MHW 392/CYE 043° 8.5 nmi to fld.
REMARKS: [1]Glide slope unusable from MM to touchdown.

WILLIAMSPORT-LYCOMING CO *IFR* 4 E
FSS: WILLIAMSPORT on Fld
528 H50/9-27 (3) (S-44, T-70, TT-110) BL4, 6, 8A, 9 S5 F4, JP1
REMARKS: Flashing amber indicating rgt turns for lndg rnwys, lctd SW corner of twr. Rnwy 15-33 open to acft 8000 lbs and under. Rgt tfc rnwy 33, 27, 30. Rnwy 27 apch restricted by pole-glide angle 7 to 1. Rnwy 15 apch restricted by poleline-glide angle 1 to 1.
WILLIAMSPORT TOWER 119.1 122.5R
WILLIAMSPORT GND CON 121.9
WILLIAMSPORT APP CON 124.9 122.5R
ILS 110.1 I-IPT Apch Brg 266° LMM: 281/PT BC Unusable
WILLIAMSPORT (L) BVORTAC 114.4/IPT 238° 8.7 nmi to fld.
WILLIAMSPORT RANGE BMRLZ 385/IP 285° 6.1 nmi to fld.
HUGESVILLE RBn MHW 266 HVL 282° 11.2 nmi to fld.

*** RHODE ISLAND ***

PROVIDENCE

GREEN *IFR* 6 S (PVD VOR on fld)
56 H54/5R-23L (4) (S-90, T , TT) BL5, 6, 8A, 9 S5 F5, JP1 U2 RVV: Rnwy 5R FSS: PROVIDENCE on Fld
PROVIDENCE (H) BVORTAC 115.6/PVD at fld.
REMARKS: Fee. No mult engine lndgs 5L, no tkofs 23R.
TOWER 120.7 126.2 122.5R 109.3T 368T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES: (BCN)

RHODE ISLAND–*Continued*

PROVIDENCE (Continued)
QUONSET APP CON 118.6 134.1 120.1
QUONSET DEP CON 124.5 126.2 123.8
ILS 109.3 I-PVD Apch Brg 046° BC Unusable

*** SOUTH CAROLINA ***

CHARLESTON AFB/MUNI *IFR* 9 NW FSS: CHARLESTON [illegible]
45 H90/15-33 (2) (S-50, T-155, TT-305) BL4, 6, 8A, [illegible] S5 F5, JP5 U2 VASI: Rnwys 15, 21, & 33
RVR: Rnwy 15, 21, 33
TOWER 126.2 122.5R 121.0 113.5T 109.7T
CLRNC DEL 121.7 GND CON 121.9
RADAR SERVICES:
APP CON 119.3 118.5 113.5T 109.7T
DEP CON 123.9
ASR Rnwys 3, 15, 21, 33 Ceil 400 Vsby 1 mi Min A[illegible]
ILS[1] 109.7 I-CHS Apch Brg 149° LOM: 251 CH BC Unusable
(H) BVORTAC 113.5/CHS on fld.
RBn[2] H-SAB 329/CHS 102° 2.5 NM to fld.
ILS 109.3 I-PHL Apch Brg 085° LOM: 201 HL BC unusable
VOT: 111.0

COLUMBIA

COLUMBIA *IFR* 5 SW (331°, 5.7 NM from CAE VOR)
210 H75/10-28 (1) (S-80, T-105, TT-) BL6, 8A, 9 S[illegible] JP1 U2 FSS: FLORENCE
TOWER 126.2, 122.5R 119.5 110.3T
GND CON 121.9
APP CON 118.2 122.5R 114.7T 110.3T
ILS[1] 110.3 I-CAE Apch Brg 106° LOM: 356 CA BC unusable
(H) BVORTAC 114.7/CAE 331° 5.7 NM to fld.
REMARKS: [1]Lclzr unusable MM to rnwy acct rufness.

OWENS FIELD 1 SE (024° 8 NM from CAE VOR)
203 H36/15-33 (2) (S-150) L4 F4 U1
FSS: FLORENCE (LC [illegible])
REMARKS: Rgt tfc SE, NE. Clsd ngts to transient c[illegible] unlgtd obstns. Rnwy 33 apch restricted by poleline-g[illegible] angle 5 to 1. Rnwy 15 & 25 apch restricted by poleline-g[illegible] angle 0 to 1. Rnwy 7 apch restricted by poleline-g[illegible] 0 to 1.
TOWER[1] 126.2 122.5R
COLUMBIA APP CON 118.2 122.5R 110.3T [illegible]
REMARKS: [1]Oper weekdays 1230-1630Z and 1745-2[illegible] Sats 1230-1600Z.

GREENVILLE MUNI DOWNTOWN *IFR* 2 E
FSS: GREER (LC [illegible])
1047 H54/18-36 (3) (S-21, T-30, TT-60) BL4, 6 S5 F4, JP1 U2
REMARKS: Rgt tfc rnwys 18, 27, 23. S1600 rnwy 18-36 poor condition.
TOWER 119.9 126.2 122.5R 109.7T 391T
GND CON 121.9
RADAR SERVICES:
APP CON 118.0 126.2 124.3 122.5R 119.4 [illegible]
DEP CON 118.8
ASR Rnwy 18 Ceil 500 Vsby 1 mi Min Alt 1547 Rnwy 36 Ceil 400 Vsby 1 mi Min Alt 1447
ILS[1] 109.7 I-GRL Apch Brg 002° LOM: [illegible] 3.6 NM to fld. BC unusable

SOUTH CAROLINA—Continued

EENVILLE (Continued)
REMARKS: [1]Glide slope unusable below 1347' MSL.

EER
REENVILLE-SPARTANBURG *IFR* 3 S FSS: GREER on Fld
761 H76 3-21 (2) (MAX-60) BL6, 8A, 9, 14, 15 S5 F5, JP5 U2 RVV: Rnwy 3
REMARKS: Fee commercial only.
GREER TOWER 120.1 126.2 122.8R 115.7T 109.3T 209T
GREER GND CON 121.8
RADAR SERVICES:
GREENVILLE APP CON 118.0 126.2 124.3 122.5R 119.4 109.7T
GREENVILLE DEP CON 118.8
ILS 109.3 I-GSP Apch Brg 033° LOM: 287 GS 033° 5.2 NM to fld

RTANBURG DOWNTOWN MEMORIAL *IFR* 2 SW
FSS: GREER (LC 585-5470)
816 H52 4-22 (3) (S-30, T- , TT-) BL4, 6 S5 F5, JP1-5
REMARKS: Unlgtd wind cone.
TOWER[1] 118.3 126.2 122.5R 317T
CLRNC DEL 121.9 GND CON 121.9
RADAR SERVICES:
GREENVILLE APP CON 124.3
GREENVILLE DEP CON 118.8
(H) BVORTAC 115.7 SPA 195° 6.9 NM to fld.
RBn H-SAB 248 SPA 068° 1.2 NM to fld.
REMARKS: [1]Oper 1100-0300Z.

SOUTH DAKOTA

ON
OWES MUNI *IFR* 1 NW FSS: HURON on Fld
1287 H51 12-30 (2) B*L6 S5 F2, 4 U1
REMARKS: Rnwy 17-35 clsd to acft over 3500 lbs, usable length 1875'.
ILS[1] 110.3 I-HON Apch Brg 118° LOM: 302 HO
(L) BVOR 117.6 HON 124° 4.5 NM to fld.
RBn SBH 391 HON 2.4 NM to fld.
REMARKS: [1]Glide slope unusable below 1487' MSL acct slope roughness.

X FALLS
E FOSS FIELD *IFR* 2 NW FSS: HURON (DL)
1428 H90/3-21 (3) (S-30, T-40, TT-) BL4, 6 S5 F5, JP1 U2 RVV: Rnwys 3, 21 REIL Rnwy 15
REMARKS: Rnwy 9-27 restricted of acft over 30,000 lbs, rnwy 3-21 & 15-33 rest to acft over 120,000 lbs.
TOWER 118.3 122.5R GND CON 121.9
APP CON 125.8 122.5R 115.0T 109.9T 245T
ILS 109.9 I-FSD Apch Brg 026° LOM: 219 FS
(H) BVORTAC 115.0 FSD 147° 4.1 NM to fld.
RBn SBH 245/FSD 094° 1.9 NM to fld

TENNESSEE

TOL
I-CITY *IFR* 12 SW (224° 6 NM from TR LOM)
1519 H66/4-22 (2) (S-95, T-125, TT-215) BL6, 8A, 9 S5 F5, JP1 U2 RVV: Rnwy 22 FSS: TRI-CITY on Fld
TOWER 119.5 126.2 122.5R 114.6T 109.9T
GND CON 121.9

TENNESSEE—Continued

BRISTOL (Continued)
APP CON 125.7 126.2 122.5R 114.6T
DEP CON 119.5 126.2
ILS[1] 109.9 I-TRI Apch Brg 224° LOM: 299 TR
REMARKS: [1]Glide slope unusable below 1919' MSL. Lclzr unusable MM to rnwy, unusable above 6000' MSL ILS BC unusable

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CHATTANOOGA
LOVELL FIELD *IFR* 5 E FSS: CROSSVILLE (LC AM 7-5343)
682 H62 1-19 (2) (S-90, T-120, TT-) BL4, 6, 8A, 9, 10 S5 F5, JP4, 5 U2 VASI: Rnwy 1 RVV: Rnwy 19
CHATTANOOGA TOWER 118.3 126.2 109.5T
CHATTANOOGA GND CON 121.9
VFR ADV Ctc APP CON 25 mi out on 125.1
CHATTANOOGA APP CON 125.1 126.2 115.8T 109.5T
ILS[1] 109.5 I-CHA Apch Brg 196° LMM: 201 HA
CHATTANOOGA (H) BVORTAC 115.8 CHA 332° 4.9 NM to fld
N CHATTANOOGA RBn MHN 341 CQN 196° 7.7 NM to fld.
REMARKS: [1]Glide slope unusable below 882' MSL

KNOXVILLE
McGHEE-TYSON *IFR* 11 S FSS: KNOXVILLE on Fld
989 H90 4L-22R (3) (S-75, T-90, TT-200) BL4, 6, 8A, 9 S5 F5, JP1 U2 RVR: Rnwy 4L
REMARKS: Rgt tfc rnwys 4R & 22R.
KNOXVILLE TOWER 118.7 126.2 122.5R 116.4T 110.3T
KNOXVILLE GND CON 121.9
RADAR SERVICES:
KNOXVILLE APP CON 123.9 122.5R 116.4T 110.3T
KNOXVILLE DEP CON 120.2
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwy 4L Ceil 400 Vsby 1 mi Min Alt 1389. Rnwys 18, 22R Ceil 500 Vsby 1 mi Min Alt 1489
ILS[1] 110.3 I-TYS Apch Brg 045° LOM: 353 TY
BC unusable
KNOXVILLE (H) BVORTAC 116.4 TYS 221° 6.6 NM to fld.
KNOXVILLE RBn H-SAB 257 TYS 200° 2.6 NM to fld
VHF DF available, contact tower.
REMARKS: [1]Glide slope unusable below 1089' MSL AB 10:00-03:00Z
VOT: 112.0

MEMPHIS METROPOLITAN *IFR* 3 S FSS: MEMPHIS on Fld
331 H89/17-35 (4) (S-100, T-150, TT-270) BL4, 6, 8A, 9, 10, 15 S5 F5, JP5 U2 VASI: Rnwy 27
RVR: Rnwy 9
REMARKS: Rnwys 3-21, & 14-32 restricted to 100,000 lbs GWT. Rnwy 9-27 restricted to 50,000 lbs single wheel. 3816 ft avbl lndg & tkots both direction rnwy 14-32.
TOWER 126.2 122.5R 118.3 115.5T 109.5T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.1[1] 126.2 125.8[2] 122.5R 115.5T 110.5T 109.5T DEP CON 119.7
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys 3, 9, 17, 21, 27, 35 Ceil 400 Vsby 1 mi Min Alt 731 Rnwy 35 Ceil 500 Vsby 3 mi Min Alt 831
ILS 109.5 I-MEM Apch Brg 087° LOM: 287/ME 110.5 I-TSE[3] Apch Brg 354° LOM: 371/TS BC unusable
(H) BVORTAL 115.5/MEM 287° 3.0 NM to fld.
RBn SBH 371/TS 354° 4.7 NM to fld
VHF/DF available, contact tower

TENNESSEE—Continued

MEMPHIS METROPOLITAN (Continued)

REMARKS: [1]077-271° [2]272-076° [3]Glide slope unusable below 400′ MSL.

VOT: 111.0

NASHVILLE METROLPOLITAN *IFR* 5 SE

FSS: NASHVILLE on Fld

597 H80/13-31 (3) (S-76, T-130, TT-220) BL4, 6, 8A, 9 S5 F5, JP1 U2 **RVV:** Rnwy 2L

REMARKS: Rnwy 2R-20L-240′ overrun N end; 1185′ S end

BERRY TOWER 126.2 122.5R 119.1 109.9T

BERRY GND CON 121.9

RADAR SERVICES: (BCN)

APP CON 120.6 122.5R 109.9T

DEP CON 123.7

TFC INFO Ctc APP CON on 120.6 25 mi out.

ASR Rnwys 2L, 13, 20R[1], 31 Ceil 400 Vsby 1 mi Min Alt 997

ILS 109.9 I-BNA Apch Brg 015° LOM: 326/BN

NASHVILLE (H) BVORTAC 114.1/BNA 4.5 NM to fld

NASHVILLE RBn H-SAB 304/BNA 2.3 NM to fld

VHF/DF available, contact tower

REMARKS: [1]Maint 1200 til 2 mi from end of rnwy on final to rnwy 20R.

VOT: 111.0

*** TEXAS ***

ABILENE MUNI *IFR* 3 SE

FSS: ABILENE on Fld

1778 H60/17-35 (2) (MAX-30) BL4, 6, 8A, 9 S5 F4 U2 **RVV:** Rnwy 35

REMARKS: NW-SE txwy used by lgt acft for lndg during high cross wind conditions. Rgt tfc rnwys 4 & 35. VFR arriving acft requested ctc ABI APP CON 124.1 mc transmitt 122.5 and receive 124.1 mc 20 mi out.

TOWER 120.1 122.7R 110.3T 126.2 278T

GND CON 121.9

RADAR SERVICES: (BCN)

APP CON 124.1 126.5 121.3 134.1 110.3T 113.7T 109.2T **DEP CON** 125.0

TFC INFO Ctc APP CON 121.3 or trans 122.5 and rcv 121.3 mc 25 mi out

ILS 110.3 I-ABL Apch Brg 350° LOM: 353/AB

(H) BVORTAC 113.7/ABI 102° 9.5 NM to fld.

AMARILLO AFB/MUNI *IFR* 8 E

FSS: AMARILLO on Fld

3607 H135/3-21 (2) (S-65, T-330, TT-470) BL6, 8A, 9, 10 S5 F5, JP1 U2 **VASI:** Rnwys 3, 21 **RVV:** Rnwys 3, 21

REMARKS: Rgt tfc rnwy 3. Rectangular tfc ptn 5100 ft MSL. Overhead tfc ptn 5400 ft MSL. Rnwy 13-31 lmtd to 33,000 lbs GWT.

TOWER 126.2 122.5R 118.3 **GND CON** 121.9

RADAR SERVICES:

APP CON 121.1 126.2 124.8 122.5R 117.2T 110.3T

DEP CON 119.5

TFC INFO Ctc APP CON 25 NM out on 124.8

ASR Rnwys 3, 21 Ceil 400 Vsby 1 mi Min Alt 4007.
Rnwys 13, 31 Ceil 500 Vsby 1 1/2 mi Min Alt 4107

ILS[1] 110.3 I-AMA Apch Brg 035° Trade Wind LOM: 338/AM

(H) BVORTAC 117.2/AMA 210° 4.5 NM to fld.

RBn SABH 251/AMA 109° 1.3 NM to fld.

REMARKS: [1]Glide slope unusable below 3907′ MSL acct roughness.

TEXAS—Continued

AUSTIN

MUELLER MUNI *IFR* 2 NE

FSS: AUSTIN on Fld

631 H73/12R-30L (5) (S-74, T-100, TT-159) BL4, 6, 8A, 9 S5 F5, JP5 U2 **RVV:** Rnwy 30L

REMARKS: Rgt rnwys 12R, 16R, 30R & 21. Rnwy 34L apch restricted by trees-glide angle 0 to 1. Rnwy 12R threshold displaced 900 ft SE. 6400 ft avbl lndg rnwy 12R. Rnwy 16L threshold displaced 600 ft S. 4406 ft avbl lndg rnwy 16R.

AUSTIN TOWER 118.3 126.2 122.5R 109.5T

AUSTIN GND CON 121.9

RADAR SERVICES: (BCN)

AUSTIN APP CON 124.9 125.1 122.7R 112.5T

AUSTIN DEP CON 120.8

ASR Rnwys 12R, 30L Ceil 400 Vsby 1 mi Min Alt 997

ILS 109.5 I-AUS Apch Brg 305° LOM: 353 AU (HW LOM)

AUSTIN (H) BVORTAC 112.5/AUS 175° 5.1 NM to fld.

AUSTIN RBn MHW 353/AU 305° 4.8 NM to fld.

REMARKS: [1]Unusable beyond 35 nm below 3500 MSL 260° 320°.

BEAUMONT

JEFFERSON CO *IFR* 9 SE

FSS: BEAUMONT on Fld

16 H57/11-29 (3) (S-65, T-91, TT-170) BL4, 6, 8A, 9, 11 S5 F4, JP1 U2 **RVV:** Rnwy 11 **REIL:** Rnwy 16

TOWER 119.5 122.5R **GND CON** 121.9

BEAUMONT APP CON 121.3 122.5R 114.9T

ILS 109.5 I-BPT Apch Brg 113° LOM: 257 BP

BEAUMONT (L) BVOR 114.9/BPT 056° 4.6 NM to fld.

BROWNSVILLE

RIO GRANDE VALLEY INTL *IFR* 4 E (242° 2.3 NM from BRO VOR)

22 H57/13R-31L (6) (S-35, T-58, TT-108) BL4, 6, 7, 8A, 8B S5 F5, JP1, 4 U2

FSS: BROWNSVILLE on Fld

REMARKS: Rnwy 4-22 restricted to 10,000 lbs or less. Rwy lgts on req after 2400. CTN-constr vic fld. Rnwy 31L apch restricted by brush-glide angle 0 to 1. Rnwy 31R apch restricted by trees-glide angle 0 to 1. Rnwy 35R apch restricted by trees-glide angle 1 to 1.

BROWNSVILLE TOWER 118.1 126.2 122.5R 278T

BROWNSVILLE GND CON 121.9

BROWNSVILLE APP CON 119.5 126.2 118.1 338T

ILS 110.3 I-BRO Apch Brg 173° LOM: 219 BR

BROWNSVILLE (H) BVORTAC 116.3 BRO 242° 2.3 NM to fld.

BROWNSVILLE RBn SBH 388/BRO 155° 2.0 NM to fld.

COLLEGE STATION

EASTERWOOD FIELD *IFR* 2 SW (098° 2.5 NM from CLL VOR)

319 H51/10-28 (3) (S-30, T-40, TT-) BL4 S3 F4

FSS: COLLEGE STATION on Fld

REMARKS: Services offered dalgt hrs only.

TOWER[1] 118.5 126.2 122.5R **GND CON** 121.9

REMARKS: [1]Oper 1200-0400Z daily.

CORPUS CHRISTI INTL *IFR* 5 W (191° 7.9 NM CRP VOR)

43 H56/13-31 (2) (S-76, T-102, TT-162) BL4, 6, 8A, 8B S5 F4, TP-1 JP4 U2 **RVV:** Rnwy 13

FSS: ALICE FLC TU 4-5

REMARKS: Amber flashing lgt for rgt ptn. US Customs-free arpt 8 AM to 5 PM Mon-Fri. Req arrival notice be forwarded to customs when filing flt plan in Canada, Mexico or Cuba

TOWER 126.2 122.5R 120.9 118.3 **GND CON** 121.7

RADAR SERVICES:

TEXAS—Continued

RPUS CHRISTI (Continued)
APP CON 118.3 123.7 122.5R
DEP CON 125.3
ILS 110.3 I-CRP Apch Brg 127° LOM: 393 CR
(H) BVORTAC 115.5 CRP 191° 7.9 NM to fld.
RBn SBH 382 CRP 216° 2.2 NM to fld.

.LAS
DDISON *IFR* 9 N (ADS VOR on fld)
637 H45-15-33 (2) BL4 S5 F5, JP1 U2
FSS: DALLAS (LC FL 7-2825)
REMARKS: Rnwy 21 apch restricted by poleline-glide angle 3 to 1.
TOWER 121.1 122.7R GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 119.8[2] 110.3T
DALLAS DEP CON 119.5
ADDISON (T) BVOR 111.4 ADS 178° 7.1 NM to fld.
REMARKS: [1]127°-307° [2]308°-126°

JVE FIELD *IFR* 5 NW (178° 7.1 NM from ADS VOR)
485 H88/13R-31L (2) (S-100, T-150, TT-350) BL4, 6, 8A, 9, 10, 11 S5 F5, JP1, 4 U2 VASI: Rnwy 31 REIL: Rnwy 31 RVR: Rnwy 13 FSS: DALLAS on Fld
REMARKS: Rnwy 36 apch restricted by poleline-glide angle 14 to 1. 3500 ft N end rnwy 18 avbl for S Lndgs & tkofs. US Customs lndg rgts arpt 1230 am - 230 pm Mon-Fri, 1230 am - 430 pm Sat. Req arrival notice be forward customs when fil. ing flt plan in Canada, Mexico or Cuba.
TOWER 126.2 122.5R 118.7
CLRNC DEL 121.6 GND CON 121.9
RADAR SERVICES:
DALLAS APP CON 125.2 123.7[2] 122.5R 119.8[3] 111.4T 110.3T
DALLAS DEP CON 119.5
TFC INFO Ctc APP CON 25 mi out
PAR Rnwys 13L Ceil 200 Vsby 1/2 mi Min Alt 685
ASR Rnwys 13, 18, 31[1], 36 Ceil 400 Vsby 1 mi Min Alt 885
ILS[4] 110.3 I-DAL Apch Brg 127° LOM: 371 OA
DALLAS (H) BVORTAC 114.6 DAL 219° 15.6 NM to fld.
RBn BH 341/DAL 358° 1.4 NM to fld.
VHF/DF available, contact tower
REMARKS: [1]Maint at least 1400 til 3.5 mi from apch end of rnwy 31 and 1000 til 1.4 mi from apch end of rnwy 31. [2]127°-307° [3]308° - 126° [4]Glide slope unusable below 477' MSL due roughness. BC unusable for automatic apchs. Acft apch Love field from W and S side of lclzr crs extended should ctc Dallas APP CON on 123.7. Acft approaching from N and E side of lclzr crs should ctc Dallas APP CON on 119.8.
VOT: 111.0

:D BIRD *IFR* 6 SW (347° 1.1 NM from DCV RBN)
559 H44/13-31 (2) BL4 S5 F4, JP1 U2
FSS: DALLAS (LC FL 7-2825)
TOWER[3] 120.3 122.6R 248T GND CON 121.7
RADAR SERVICES:
DALLAS APP CON 123.7[1] 125.2 122.5R 119.8[2] 114.4T 110.3T
DALLAS DEP CON 119.5
REMARKS: [1]127°-307° [2]308°-126° [3]Oper 120-0400Z.

TEXAS—Continued

EL PASO INTL *IFR* 4 NE (AOE) FSS: EL PASO on Fld
3956 H120 4-22 (3) (S-95, T-156, TT-280) BL4, 6, 8A, 9 S5 F5, JP1, 4 U2 RVV: Rnwy 22
REMARKS: Rnwy 4 threshold displaced 1000 ft NE. 11,000 avbl lndg rnwy 4. Rnwy 17 threshold displaced 395 ft S. 6606 ft avbl lndg rnwy 17.
TOWER 118.3 126.2 122.5R 224T GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 118.7 126.2 124.3 122.7R 121.3 119.1 114.5T 112.4T
DEP CON 119.1
ASR Rnwys 22, 26 Ceil 400 Vsby 1 mi Min Alt 4356
ILS[1] 109.5 I-ELP Apch Brg 218° LOM: 266 EL
(H) BVORTAC 114.5 ELP 257° 3.8 NM to fld.
RBn H-SAB 242 ELP 258° 3.2 NM to fld.
REMARKS: [1]BC not avbl, overlies Mexico
VOT: 111.0

FORT WORTH
GREATER SOUTHWEST INTL *IFR* 16 NE
FSS: FORT WORTH (LC MA 4-8444)
568 H90 17-35 (2) (S-83, T-120, TT-210) BL4, 6, 8A, 9 S3 F5, JP4 RVR: Rnwy 13
SOUTHWEST TOWER 118.9 126.2 122.7R 317T
SOUTHWEST GND CON 121.8
RADAR SERVICES:
FORTH WORTH APP CON 118.1 126.2 122.7R 119.6 109.5T
FORT WORTH DEP CON 123.9 122.7R
TFC INFO Ctc APP CON 25 NM out on 118.1
ASR Rnwys 13, 17, 31, 35 Ceil 400 Vsby 1 mi Min Alt 968
ILS 109.5 I-GSW Apch Brg 129° LOM: 619 GS 219GS
GREATER SOUTHWEST (L) BVORTAC 110.6 GSW at fld.
FORTWORTH RBn H-SAB 365 FTW 177° 2.1 NM to MEACHAM fld.
VHF DF available, contact tower
VOT: 111.8

MEACHAM FIELD *IFR* 5 N FSS: FORT WORTH on Fld
692 H52/17-35 (3) (S-60, T-80, TT-) BL4, 6, 7, 8A, 9 S5 F5, JP5 U2
REMARKS: Rnwy 31 apch restricted by poleline-glide angle 6 to 1.
TOWER[1] 126.2 122.7R 118.3 GND CON 121.9
RADAR SERVICES:
FORT WORTH APP CON 119.6 126.2 122.7R 118.1 109.5T
FORT WORTH DEP CON 123.9 122.7R
ILS 109.9 I-FTW Apch Brg 174° LMM: 211 TW
REMARKS: [1]Oper 1300-0500Z.
VOT: 108.2

GREENVILLE
MAJORS FIELD 4 SE FSS: DALLAS
544 H80/17-35 (3) (S-80, T-140, TT-220) BL4 S5 F4
FSS: DALLAS
REMARKS: Ngt lndg not advisible. Rnwy lgts on first 3500 ft rnwy 35 only, remainder lgtd smudge dots prior req. S 3300' rnwy 17 lgtd.
TOWER[1] 121.3 122.5R
REMARKS: [1]Oper 1330-2200Z excp Sat & Sun.

TEXAS—Continued

HOUSTON

WILLIAM P HOBBY *IFR* 8 SE FSS: HOUSTON on Fld 50 (H76/3-21 (3) (S-100, T-150, TT-270) BL4, 6, 8A, 9 S5, F5, JP4 U2 RVR: Rnwy 3
REMARKS: US Customs lndg rgts arpt 0800-1700 Mon-Sat, req Arrival notice be forwarded to US Custom when filing flt plan in Canada, Mexico or Cuba.
TOWER 118.7 126.2 122.5R 119.1 3023.5R
GND CON 121.9
RADAR SERVICES:
APP CON 118.1[1] 126.2 124.5 122.5R 119.1[2] 115.9T
DEP CON 123.7 126.2
TFC INFO Ctc APP CON on 123.7 119.1 or 118.1 25 mi out.
ASR Rnwys 3, 12, 30 Ceil 400 Vsby 1 mi Min Alt 450. Rnwys 17, 35 Ceil 500 Vsby 1 mi Min Alt 550. Rnwy 21 Ceil 600 Vsby 1 mi Min Alt 650.
ILS 109.9 I-HOU Apch Brg 036° LOM: 251/HO
HOUSTON (H) BVORTAC 115.9/HOU on fld.
HOUSTON RBn H-SAB 332/HOU 311° 1.4 NM to fld.
VHF/DF available, contact tower.
REMARKS: [1]218°-008° [2]009°-217°
VOT: 111.0

JOHNSON CITY MUNI *IFR* 10 W FSS: AUSTIN
1515 H63/17-35 (1) L4, 11 F4 U1 REIL: Rnwy 35
TOWER[1] 126.2
RADAR SERVICES:
AUSTIN APP CON 124.9 125.1 122.7R
AUSTIN DEP CON 120.8
RBn MH 393/JCY 346° 2 NM to fld.
REMARKS: [1]Weather and altimeter setting avbl when twr is in oper.

LAREDO MUNI *IFR* 6 N (AOE) FSS: COTULLA (LC RA2-3612)
524 H49/15-33 (1) (S-48, T-68, TT-135) BL4 S3 F4 U1
REMARKS: Mil jet tfc advisory service avbl from AFB twr on 122.5R, 118.5T

LONGVIEW

GREGG COUNTY MUNI *IFR* 6 SE FSS: GREGG COUNTY on Fld
JP1 U2
365 H61/17-35 (3) (S-75, T-100, TT-) BL4, 6 S5 F4
TOWER 119.7 122.5R GND CON 121.9
LONGVIEW APP CON 119.7 122.5R
ILS 109.5 I-GGG Apch Brg 126° LOM: 410/GG
LONGVIEW (L) BVOR 112.4/GGG 125° 2.3 NM to fld.

LUBBOCK MUNI *IFR* 4 NE FSS: LUBBOCK on Fld
3269 H85/17R-35L (4) (S-30, T-40, TT) BL5, 6, 8A, 9 S5 F4, JP1 U2
REMARKS: Rnwy 35L threshold displaced 900 ft N. 7602 ft avbl lndg rnwy 35L. Clsd nit jet acft
TOWER 119.9 126.2 122.5R
GND CON 121.9 APP CON 118.1 126.2 122.5R 110.8T 391T DEP CON 118.1
ILS 109.5 I-LBB Apch Brg 169° LOM: 219/LB
(L) BVORTAC 110.8/LBB 111.0 4.6 NM to fld.
RNG SBMRLZ 391/LX 075° 10.1 NM to fld.

TEXAS—Continued

MIDLAND AIR TERMINAL *IFR* 8 SW FSS: MIDLAND on F:
2870 H83/10-28 (4) (S-100, T-128, TT-280) BL4, 6, 8A 9 S5 F5, JP2 U2 RVV: Rnwy 10
REMARKS: Rnwy 34L threshold displaced 627 ft N 6902 ft avbl lndg rnwy 34L. Rnwy 28 threshold displaced 675 ft NE 7602 ft avbl lndg rnwy 28. Rnwy 4 threshold displaced 2302 ft NE. 5197 ft avbl lndg rnwy 4.
TOWER 118.7 126.2 122.5R GND CON 121.9
APP CON 121.1 122.5R 114.8T 110.3T
ILS 110.3 I-MAF Apch Brg 103° LOM: 344 MA (LOM is HW fac)
VHF/DF available, contact tower
(L) BVOR 114.8/MAF 181° 3.4 NM to fld.

PLAINVIEW

HALE COUNTY *IFR* 1 S FSS: LUBBOCK (LC CA 3-7[illegible]
3372 H52/4-22 (2) (S-30, T-40, TT) BL4 S5 F4 U2
REMARKS: Rnwy 22 apch restricted by hangar-glide angle [illegible]
TOWER[1] 118.9 122.5R 233T GND CON 121.7
REMARKS: [1]Oper 1200-0400Z.
PLAINVIEW (L) BVOR 110.6/PVW 023° 6.0 NM to fld.

SAN ANGELO

MATHIS FIELD *IFR* 7 SW FSS: SAN ANGELO on F:
1915 H59/3-21 (3) (S-35, T-56, TT) BL4, 8A, 9 S5 F4 U2 RVV: Rnwy 3
REMARKS: Rnwy 27 apch restricted by trees-glide angle [illegible]
Rnwy 9-27 clsd to acft over 25,000 lbs gwt.
TOWER 118.3 122.5R GND CON 121.9
SAN ANGELO APP CON 119.2 118.3 122.5R 115.1T 109.7T
ILS 109.7 I-SJT Apch Brg 032° LOM: 356 SJ
SAN ANGELO (H) BVORTAC 115.1/SJT 234° 1.8 NM to fld.

SAN ANTONIO INTL *IFR* 7 N FSS: SAN ANTONIO on F:
808 H85/12-30 (3) (S-150, T-225, TT-300) BL4, 6, 8A, 9 S5 F4, JP1 U2 RVV: Rnwys 3, 12
REMARKS: US customs lndg rts arpt 10 am-8 pm Mon-Sat req arrival notice be forwarded to customs when filing flt plan Canada, Mexico or Cuba. Rnwy 35 threshold displaced 324 NW. Usable lndg length 5128'. Rnwy 17 usable lndg length 5452'.
TOWER 118.9 122.5R GND CON [illegible]
RADAR SERVICES:
APP CON 120.3 134.1 126.5 126.2R 122.5R [illegible] 109.7T DEP CON 123.9
TFC INFO Ctc APP CON 25 mi out.
ASR Rnwys[1] 3, 12, 17, 21, 30, 35 Ceil 400 Vsby 1 mi Min Alt 1208
BC unusable 109.7
ILS 110.9 I-ANT Apch Brg 123° LOM: 305 AN
I-SAT Apch Brg 032° VHF/DF available, contact tower
(H) BVORTAC 116.8/SAT 175° 6.3 NM to fld.
RBn H-SAB 254/SAT 175° 2.3 NM to fld.
I-SAT Apch Brg 032° LOM: 219 SA VHF/DF available, contact tower.
REMARKS: [1]Rnwy 17, 35 restricted to 2 eng acft and smaller
VOT: 110.4

TEXAS—Continued

N ANTONIO
TINSON FIELD *IFR* 5 SE FSS: SAN ANTONIO (LC TA 6-6323)
567 H49 9-27 (4) (S-40, T-75, TT-) BL4 S5 F4
REMARKS: All rnwy apchs restricted by trees-glide angle 1 to 1. Rgt tfc rnwys 9, 14, 17, 22. Tfc 800 ft abo terrain 1367' MSL.
TOWER [1]119.5 122.7R GND CON 121.7
RADAR SERVICES:
SAN ANTONIO APP CON 120.3 134.1 126.5 126.2R 122.5R SAN ANTONIO DEP CON 123.9
STINSON (T) BVOR 108.4 SSF 337° 4.5 NM to fld
(T) BVOR 108.4 SSF 337° 4.5 NM to fld.
REMARKS: [1]Oper 1300-0500Z.

.ER
OUNDS FIELD *IFR* 4 W FSS: TYLER on Fld
544 H52 13-31 (3) (S-30, T-40, TT) BL4, 6, 8A, 9 S5 F4 U2 (127° 4.6 NM from TY LOM)
TYLER RBn BH 320 TYR 120° 1.4 NM to fld.
REMARKS: Acft over 50,000 lbs restricted rnwy 4-22. Rnwy 17 threshold displaced 250 ft S. 4803 ft avbl lndg rnwy 17.
TOWER 120.1 122.5R GND CON 121.9
TYLER APP CON 124.1 122.5R 109.9T 320T
ILS 109.9 I-TYR Apch Brg 127° LOM: 272 TY

:O MUNI *IFR* 5 NW FSS: WACO on Fld
515 H57, 18-36 (3) (S-26, T-38, TT-) BL4, 6, 8A, 9 S5 F5 U2 RVV: Rnwy 18
REMARKS: Rnwy 18-36 clsd until abt Mar 65. Rnwy 14-32 wt capacities S-46, T-64, TT-100.
TOWER 119.9 126.2 122.5R GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 119.3 134.1 125.3 122.7R 115.3T
DEP CON 125.7
ILS[1] 109.7 I-ACT Apch Brg 185° LOM: 242 AC
(H) BVORTAC [2]115.3 ACT 141° 3.0 NM to fld.
REMARKS: [1]Localizer and glide slope shut down til Mar.
[2]Unusable beyond 15 NM below 5000' MSL 175°-195°

HITA FALLS
IEPPARD AFB/WICHITA FALLS AIR TRML *IFR* 5 N
FSS: WICHITA FALLS on Fld
1015 H131, 15-33 (2) (S-65, T-300, TT-530) BL4, 6, 8A, 9 S5 F5, JP1, 4, 5 U2 VASI: Rnwys 33 RVV: Rnwys 15, 33
REMARKS: Overhead tfc ptn 2700 ft rectangular tfc ptn 2200 ft MSL. Rgt tfc rnwys 17 & 33.
TOWER 119.1 126.2 122.5R 278T
GND CON 121.9 WICHITA FALLS APP CON 118.2 122.5R 109.7T WICHITA FALLS DEP CON 118.2
ILS 109.7 I-SPS Apch Brg 328° LOM: 296 SP 29
WICHITA FALLS (H) BVORTAC 112.7 SPS 078° 5.1 NM to fld.
RBn HW 296 SP 328° 3.8 NM to fld.
REMARKS: LOM is HW

••• UTAH •••

EN MUNI *IFR* 3 SW FSS: SALT LAKE CITY (LC EX 4-8712)
4455 H73 3-21 (3) (S-100, T-160, TT-280) BL4 S5 F5 JP1 U2 REIL Rnwy 3
FSS: SALT LAKE CITY (LC EX 4-8712)
(H) BVORTAC 113.6 OGD 098° 3.7 NM to fld.
RBn H-SAB 263 06D 102° 3.2 NM to fld.
REMARKS: Rgt tfc rnwy 16, 21 & 35. Arrival acft ctc Hill AFB apch ctl.
TOWER[1] 118.7 122.5R GND CON 121.7
RADAR SERVICES:
HILL APP CON 120.2 132.9 124.1 122.5R 121.1
HILL DEP CON 121.1 TFC INFO Ctc APP CON aprx 20 mi out. ASR Rnwy 3 Ceil 600 Vsby 1 mi Min Alt 5055
REMARKS: [1]Oper 1300-0500Z.

SALT LAKE CITY MUNI NO 1 *IFR* 4 W
FSS: SALT LAKE CITY on Fld
4226 H100 16R-34L (3) (S-100, T-160, TT-260) BL4, 6, 7, 8A, 9, 11 S5 F5, JP1 U2 VASI: Rnwy 16R RVR: Rnwy 34L
REMARKS: Rnwy 7-25 & 14-32 restricted to acft in excess of 35,000 lbs.
SALT LAKE TOWER 118.3 126.2 122.7R
SALT LAKE GND CON 121.9
RADAR SERVICES:
SALT LAKE APP CON 120.9 122.7R 116.8T 109.5T
SALT LAKE DEP CON 125.7
ASR Rnwys 16R, 34R, 34L Ceil 400 Vsby 1 mi Min Alt 4626. Rnwy 16L Ceil 600 Vsby 1 mi Min Alt 4826.
ILS 109.5 I-SLC Apch Brg 338° LOM: 239 SL
VHF DF[1] available, contact tower.
(H) BVORTAC 116.8 SLC 158° 2.9 NM to fld
RBn BH 227 SLC 163° 2.3 NM to fld.
REMARKS: [1]VHF DF unusable from 360 to 100°.
VOT: 111.0

••• VERMONT •••

BURLINGTON MUNI *IFR* 2 E FSS: MONTPELIER (LC 878-3393)
335 H78 15-33 (2) (S-62, T-110, TT-195) BL5, 6, 8A, 9 S5 F5, JP1, 4 U2 RVV: Rnwy 15
TOWER 126.2 122.5R 118.3 110.3T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 121.1 133.5 126.2 122.5R 110.3T
DEP CON 119.2
ILS 110.3 I-BTV Apch Brg 146° BC Unusable
ILS 110.3 I-BTV Apch Brg 146° BC Unusable LOM: 219 BT
(L) BVOR 112.4 BTV 033° 4.3 NM to fld.
RBn SABH 323 BTV 155° 1.8 NM to fld.
VHF DF available, contact tower
VOT: 109.0

••• VIRGINIA •••

LYNCHBURG MUNI-PRESTON GLENN FLD *IFR* 6 SW
FSS: ROANOKE (LC 846-3942)
942 H58 3-21 (3) (S-60, T-80, TT-120) BL6, 8A, 9 S5 F4 U2
LYNCHBURG TOWER 120.7 122.5R
LYNCHBURG GND CON 121.9
LYNCHBURG APP CON 118.0 122.5R 120.7
ILS[1] 110.1 I-LYH Apch Brg 032° LMM: 344 YH
LYNCHBURG (L) BVORTAC 109.2 LYH 025° 4.0 NM to fld.
REMARKS: [1]BC unusable below 3500' MSL beyond 20 nmi.

VIRGINIA—*Continued*

NEWPORT NEWS

PATRICK HENRY *IFR* 9 NW (065° 2.7 NM from PH LOM)
41 H56/6-24 (2) (S-90, T-130, TT-225) BL4, 6, 8A, 9 S5
F5, JP1 U2 **FSS:** NEWPORT NEWS on Fld
REMARKS: Fee in lieu of fuel for acft over 12,500 lbs.
TOWER 118.7 122.7R 110.1T 317T
GND CON 121.9
RADAR SERVICES: (BCN)
NORFOLK APP CON 125.7
NORFOLK DEP CON 118.9
ILS 110.1 I-PHF Apch Brg 065° LOM: 375/PH BC unusable.

NORFOLK MUNI *IFR* 5 NE **FSS:** NEWPORT NEWS (DL)
26 H50/4-22 (3) (S-70, T-100, TT-180) BL4, 6, 8A, 9 S5
F4, JP1 U2 **RVV:** Rnwy 4
REMARKS: Rnwy 13 threshold displaced 219'.
TOWER 121.1 122.5R 109.1T
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.8 DEP CON 118.5
ASR Rnwys 1, 4, 13, 19, 22, 31 Ceil 500 Vsby 1½ mi Min Alt 526
ILS[1] 109.1 I-ORF Apch Brg 045° LOM: 329/OR
(H) BVORTAC 116.9/ORF at fld.
VHF/DF available, contact tower.
REMARKS: [1]ILS shut down indefinitely due to constrn.

RICHMOND

BYRD FIELD *IFR* 6 E **FSS:** RICHMOND on Fld
167 H80/15-33 (3) (S-100, T-135, TT-240) BL4, 6, 8A, 9 S5
F5, JP1, 4 U2 **RVV:** Rnwy 6
REMARKS: Fee exec and skeds. Rgt tfc patn rnwy 6, 20 and 33.
RICHMOND TOWER 119.5 126.2 122.5R 110.3T
CLRNC DEL 121.9 **RICHMOND GND CON** 121.9
RADAR SERVICES: (BCN)
RICHMOND APP CON 119.0 126.2 122.5R 119.9 110.3T
RICHMOND DEP CON 118.2
TFC INFO Lndg acft ctc APP CON 35 mi out on 119.9
ASR Rnwys 2, 6, 15, 20, 24, 33 Ceil 400 Vsby 1 mi Min Alt 567
ILS 110.3 I-RIC Apch Brg 063° LOM: 382/R1
RICHMOND (H) BVOR 114.1/RIC at fld.
RICHMOND SBH 260/RIC 018° 1.7 NM to fld.
VOT: 110.8

ROANOKE MUNI (WOODRUM) FLD *IFR* 3 NW
FSS: ROANOKE on Fld
1174 H54/5-23 (3) (S-60, T-85, TT-140) BL4, 11 S5
F5, JP1 **REIL:** Rnwy 23
REMARKS: Rnwy 33 threshold displaced 125'.
TOWER 118.3 122.5R 120.2
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 126.9 122.5R 120.2 109.0T
DEP CON 126.0
ASR Rnwy 33 Ceil 1200 Vsby 2 mi Min Alt 2374.
(L) BVORTAC 109.4/ROA 107° 4.5 NM to fld.
RBn H-SAB 371/ROA 354° 1.5 NM to fld.

••• WASHINGTON •••

EVERETT

PAINE FIELD *IFR* 6 SW **FSS:** SEATTLE [illegible]
603 H90/16-35 (2) (S-50, T-90, TT-220) BL6, 8A, 9 S5
F4, JP4
REMARKS: Rnwy 11 threshold displaced 1600'.
TOWER 121.3 126.2 122.5R 3023.5R 278T
RADAR SERVICES:
SEATTLE CENTER APP CON 121.2
ILS 109.3 I-PAE Apch Brg 155° LOM: 396 PAE
EVERETT (L) VOR 114.2/PAE on fld.
EVERETT RBn HW 396/PAE 158° 7.9 NM to fld
REMARKS: LOM is HW

RENTON MUNI *IFR* Adjt NW 031°
FSS: SEATTLE (LC CH [illegible]
29 H53/15-33 (1) (S-100, T-190, TT-300) BL4 S5
F4, JP4 4.8 NM from SEA VOR
REMARKS: Rnwy 33 threshold displaced 1000'. Rgt tfc [illegible] 33.
TOWER[1] 118.9 122.7R
GND CON 121.9 **SEATTLE DEP CON** 119.2
REMARKS: [1]Oper 1500-0700Z.

SEATTLE

BOEING FIELD *IFR* 4 S **FSS:** SEATTLE [illegible]
17 H100/13-31 (2) (S-100, T-160, TT-290) BL6, 11, 12 S[illegible]
F5, JP1 U2 **RVV:** Rnwy 13 **REIL:** Rnwy 31
REMARKS: Rnwy 12-30 lmtd to single wheel 125,000 lbs.
TOWER 126.2 122.5R 118.3 248T
GND CON 121.9
RADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T [illegible]
SEATTLE DEP CON 119.2
ILS[1] 110.9 I-BFI Apch Brg 128° BC unusable LOM [illegible] BF
Rng SABRAZ 260/SJ 290° 2.1 NM to fld
REMARKS: [1]Glide slope unusable past 6° E of front crs. [illegible] unusable beyond 13 nmi 27° W of cntrline below procedure [illegible] alt. Flag indications may be experienced beyond 12 [illegible] LOM below 3000' beyond 15° E of cntrline.

SEATTLE-TACOMA INTL *IFR* 10 S **FSS:** SEATTLE [illegible]
428 H119/16-34 (2) S-45, T-145, TT-300) BL4, 6, 8A [illegible] S5 F5, JP1, 4 **RVV:** Rnwy 16 **RVR:** Rnwy 34
TOWER 119.9 126.2 122.6R 281T
CLRNC DEL 118.0 **GND CON** 121.7
RADAR SERVICES:
SEATTLE APP CON 119.5 125.9 122.6R 114.5T [illegible]
SEATTLE DEP CON 119.2
PAR Rnwys 16, 34 Ceil 200 Vsby ½ mi Min Alt 828
ASR Rnwy 34 Ceil 400 Vsby 1 mi Min Alt 828
ILS 110.3 I-SEA[1] Apch Brg 338° LOM: 224 SE BC unusable 111.5 I-SZI [1]Apch Brg 158° LOM: 35[illegible]
SEATTLE (H) BVORTAC 114.5 SEA at fld.
VHF/DF available, contact tower.
REMARKS: [1]Automatic apchs not authorized from MM to touch down. [2]Lclzr unusable beyond 20 nmi below 2800'. Large acft crossing lclzr antenna end rnwy 34 may cause momentary false crs indications and flag activity within 90° each side of front crs. Both systems not operd simultaneously

WASHINGTON—Continued

OKANE INTL *IFR* 5 S FSS: SPOKANE (LC KE 5-2906)
2372 H90 3-21 (2) (S-100, T-200, TT-350) BL5, 6, 8A, 9
S5 F4, JP1 U2 RVV: Rnwy 3 RVR: Rnwy 21
REMARKS: Rgt tfc rnwy 3 and 7.
TOWER 118.3 126.2[1] 122.5R
GND CON 121.9
RADAR SERVICES: (BCN)
APP CON 134.1 126.2x 124.7 123.7 122.5R 119.0
109.9T
DEP CON 124.3
TFC INFO Ctc Spokane APP CON aprx 20 mi out.
ILS 109.9 I-GEG Apch Brg 205° LOM: 236 GE
(H) BVORTAC 115.5 GEG 027° 4.5 NM to fld
RBn SABH 365 GEG 271° 4.3 NM to fld
REMARKS: [1]To be decomsnd
VOT: 109.6

(IMA MUNI *IFR* 2 S FSS: YAKIMA on Fld
1082 H55 9-27 (3) (S-50, T-60, TT-100) BL4, 6 S5
F5, JP1, 4 U2
TOWER 119.1 122.5R 278T
GND CON 121.9
APP CON 120.2 122.5R 119.1
ILS 110.1 I-YKM Apch Brg 269° LOM: 284 YK
(H) BVOR 116.0 YKM 244° 3.6 NM to fld

••• WEST VIRGINIA •••

ARLESTON
ANAWHA *IFR* 2 NE FSS: CHARLESTON on Fld
982 H56 5-23 (2) (S-150, T-200, TT-44) BL4, 6, 8A, 9, 11
S5 F5, JP5 U2 RVV: Rnwy 23 REIL: Rnwy 5
(048° 8.1 NM from CRW VOR)
CHARLESTON TOWER 120.3 126.2
CHARLESTON GND CON 121.9
RADAR SERVICES:
CHARLESTON APP CON 118.8 126.2 110.3T
CHARLESTON DEP CON 124.1
TFC INFO All landing acft ctc APP CON on 118.8
ASR Rnwys 5, 14, 23 Ceil 600 Vsby 1 mi Min Alt 1582
ILS 110.3 I-CRW Apch Brg 230° BC unusable
VHF/DF available contact Tower.
VOT: 111.0

TINGTON
RI-STATE (WALKER LONG FLD) *IFR* 6 SW
FSS: HUNTINGTON on Fld
828 H53/11-29 (1) (S-50, T-75, TT-135) BL6, 8A, 9 S5
F4, JP1 U2
HUNTINGTON TOWER 120.9 122.5R
HUNTINGTON GND CON 121.9
HUNTINGTON APP CON 118.5 122.5R 109.9T
ILS 109.9 I-HTS Apch Brg 114° LOM: 287/HT 114°
4.6 NM to fld.
HUNTINGTON RBn BH 323/HTW 199° 2.5 NM to fld.

TINSBURG MUNI *IFR* 4 S FSS: MARTINSBURG on Fld
556 H70/8-26 (2) (S-90, T-120, TT-) BL4, 6 S5 F4
TOWER [1]120.5 126.2 122.5R GND CON 121.9
RADAR SERVICES:
DULLES APP CON 125.0 126.1
DULLES DEP CON 125.55
PAR[2] Rnwy 26 Ceil 300 Vsby ¼ mi Min Alt 856
ASR[2] Rnwy 26 Ceil 400 Vsby 1 Mi Min Alt 956
(L) BVORTAC 112.1/MRB 289° 5.9 NM to fld.

WEST VIRGINIA—Continued

MARTINSBURG (Continued)
Rng SBMRLZ 209 MB 036° 2.5 NM to fld.
REMARKS: [1]Oper 1330-2130Z Tues, Thur, Sat and Sun, 1330-0300Z Wed and Fri, subject to ANG operns. Clsd Mon and holidays. [2]Oper 1330-2130Z Tues thru Sat only.

WHEELING-OHIO COUNTY *IFR* 7 N FSS: WHEELING on Fld
1195 H50 3-21 (3) (S-120, T-170, TT-290) BL4, 6, 10, 11, 12
F4 VASI: Rnwy 21 REIL: Rnwy 21
WHEELING TOWER 118.1 122.5R 109.7T
WHEELING GND CON 121.9
ILS[1] 109.7 I-HLG Apch Brg 030° LOM: 212 HL
WHEELING (L) BVOR 112.2 HLG 220° 5.8 NM to fld.
REMARKS: [1]Glide slope unusable from MM to touchdown due to roughness.

••• WISCONSIN •••

GREEN BAY
AUSTIN STRAUBEL *IFR* 7 SW FSS: GREEN BAY on Fld
694 H52 6-24 (3) (S-60, T-80, TT-) BL4, 6, 8 S5 F4 U2
RVV: Rnwy 6
REMARKS: US Customs lndg rts arpt.
GREEN BAY TOWER 118.7 122.5R 109.5T 278T
GREEN BAY GND CON 121.9
GREEN BAY APP CON 119.4
ILS[1] 109.5 I-GRB Apch 059° LOM: 356 GR
GREEN BAY (H) BVORTAC 117.0 GRB 145° 4.6 NM to fld.
REMARKS: [1]Glide slope unusable below 800' acct crs roughness.

MADISON
TRUAX FIELD *IFR* 5 NE FSS: MADISON on Fld
859 H76 18-36 (4) (S-60, T-80, TT-) BL4, 6, 8A, 9 S5
F4, JP4, 5 U2 RVV: Rnwys 18, 36
REMARKS: Rnwy 8 apch restricted by poleline - glide angle 4 to 1. Rnwy 18 apch restricted by poleline- glide angle 13 to 1. 1107' (2227' MSL) twr 9.5 nmi SW and 1100' (2158' MSL) twr 8.5 nmi SW.
MADISON TOWER 119.3 126.2 122.5R 115.5T 3023.5R 278T
MADISON GND CON 121.9
MADISON APP CON 120.1 126.2 109.9T 3023.5R 278T
MADISON DEP CON 118.8
ILS 109.9 I MSN Apch Brg 359° BC unusable LOM: 400/MSN (LOM is MHW fac)
MADISON RBn MHW 400 MSN 359° 3.9 NM to fld.
TRUAX (L) BVOR 115.5 TAX at fld.
VHF/DF available contact Tower.
REMARKS: LOM is MHW

MILWAUKEE
GENERAL MITCHELL FLD *IFR* 5 S FSS: MILWAUKEE on Fld
723 H99/1-19 (4) (S-200, T-200, TT-400) BL4, 6, 8A S5
F5, JP1 U2 RVR: Rnwy 1
REMARKS: Rgt tfc rnwy 1-7. Rnwy 19 threshold displaced 1600 ft S. 8316 avbl lndg rnwy 19. Rnwy 7L-25R clsd to all Jet acft. CTN - const vic rnwy 7R. 1105' (1735' MSL) 9.5 nmi N and 1078' (1720' MSL) twrs 8 nmi N.
MILWAUKEE TOWER 119.1 126.2 124.8 122.7R 278T
CLRNC DEL 120.0 MILWAUKEE GND CON 121.9
RADAR SERVICES: (BCN)
MILWAUKEE APP CON 126.5 126.2 123.8 116.4T
110.3T 242T
MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6

WISCONSIN—Continued

MILWAUKEE (Continued)

TFC INFO Call APP CON 15 mi out.

ASR Rnwys 1[1], 7R Ceil 400 Vsby 1 mi Min Alt 1123.
Rnwys 13, 19 Ceil 500 Vsby 1 mi Min Alt 1223.
Rnwys 25L, 31 Ceil 600 Vsby 1 mi Min Alt 1323

ILS 110.3 I-MKE Apch Brg 006° LOM: 410/MK

MILWAUKEE (H) BVORTAC 116.4/MKE 119° 19.2 NM to fld.

RBn H-SAB 242/MKE 352° 1.4 NM to fld.

VHF/DF available, contact Tower.

REMARKS: [1]Do not descend below 1200 on apch until ctlr advise passing AC Spark Plug twr.

VOT: 109.0

TIMMERMAN FIELD *IFR* 5 NW **FSS:** MILWAUKEE (DL)

745 H41/15L-33R (2) (Max-15) BL4 S5 F4

REMARKS: P-line E, NE. 1105' (1735' MSL) and 1078' (1720' MSL) twrs 5 nmi E.

TOWER[1] 120.5 122.5R 345T **GND CON** 121.7

RADAR SERVICES:

MILWAUKEE APP CON 126.5 126.2 123.8 116.4T 110.3T 242T

MILWAUKEE DEP CON 118.0 126.2 122.7R 118.6

REMARKS: [1]Oper 1200-0400Z.

OSHKOSH

WINNEBAGO CO *IFR* 1 SW **FSS:** GREEN BAY (DL)

795 H58 9-27 (4) (S-75, T-100, TT -) BL6 S5 F4 U2

REMARKS: Rnwy 27 apch restricted by poleline - glide angle 5 to 1. Rnwy 22 apch restricted by poleline-glide angle 6 to 1. Rnwy 18 apch restricted by poleline - glide angle 1 to 1. Rnwy 27 threshold displaced 595 ft W. 5225 ft avbl lndg rnwy 27. Rnwy 36 threshold displaced 890 ft N. 4257 ft avbl lndg rnwy 36. No snow removal rnwys 4-22 and 13-31.

OSHKOSH TOWER [1]120.7 122.5R 395T

OSHKOSH GND CON 121.9 **APP CON** Radar vector service

WISCONSIN—Continued

OSHKOSH (Continued)

to final apch crs from Chicago ARTCC on 124.4

ILS 110.5 I-OSH Apch Brg 088° BC unusable LOM: [illegible] OS

OSHKOSH (L) BVOR 111.8/OSH at fld.

REMARKS: [1]Oper 1300-0500Z

*** WYOMING ***

CASPER AIR TERMINAL *IFR* 7 NW **FSS:** CASPER [illegible]

5348 H90/16-34 (4) (S-80, T-146, TT-288) BL4, 6, 8A, 9 S5 F4, JP4 U2 **RVV:** Rnwy 7

REMARKS: 1000 ft overruns on each end rnwy 3-21 not [illegible]

TOWER 126.2 122.5R 118.3 **GND CON** [illegible]

APP CON 120.7 126.2 122.5R 118.3 116.2T [illegible]

ILS[1] 110.3 I-CPR Apch Brg 074° LOM: 219 CP

(L) BVORTAC 116.2/CPR 201° 13.2 NM to fld.

RBn H-SAB 269/CPR 255° 6.7 NM to fld.

REMARKS: [1]Glide slope unusable beyond 1 nmi W of LOM [illegible] 7000 ft MSL due to moderate to severe roughness.

CHEYENNE MUNI *IFR* 1 N **FSS:** CHEYENNE [illegible]

6156 H93/8-26 (3) (S-90, T-121, TT-270) BL4, 6, 8A, 9 [illegible] F5, JP4 **RVV:** Rnwy 26

REMARKS: Avoid hospital E. Rnwy 8 threshold displaced [illegible] ft E. 8897 ft avbl lndg rnwy 8.

TOWER 126.2 122.5R 118.7 113.1T

GND CON 121.9

VFR ADV Ctc APP CON on 119.9 aprx 25 mi sct.

APP CON 126.2 122.5R 119.9 118.7 113.1T [illegible]

ILS[1] 109.9 I-CYS Apch Brg 261° LOM: 219 CY

(H) BVORTAC 113.1/CYS 195° 3.7 NM to fld.

RBn H 326/CYS 067° 0.8 NM to fld.

REMARKS: [1]Lclzr SW quad unusable 11,000 ft MSL and [illegible] to momentary crosspointer excursions.

ARTCC COMMUNICATIONS FREQUENCIES

FOR DETAILED INFORMATION SEE SECTION II DIRECT COMMUNICATIONS CONTROLLERS/PILOTS

ALBUQUERQUE

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
119.8	120.1	123.7	124.5	132.9	133.0	132.65	133.05		119.7
124.6	124.7	124.9	125.2	133.8	133.45	133.55	133.65		
125.4	125.5	125.9	126.4	133.85	134.75	134.35	134.45		
126.9	127.2	132.2	132.8	134.75	135.05	135.3	135.7		
134.5				135.8	135.15				

ATLANTA

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
118.9	120.0	120.3	120.8	132.25	132.75	132.85	132.9		125.9
122.9	123.2	123.8	124.1	133.1	133.35	133.7	134.55		
124.4	125.2	125.5	126.4	134.6	135.15	135.75			
126.6	127.15	127.55	127.8						
127.95	128.3	128.6	128.65						

BOSTON

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
119.0	121.0	124.0	124.2	127.8	128.1	132.5	132.65		125.9
124.9	125.8	127.0	127.1	132.9	134.3	134.45	134.85		
127.3	127.6	127.8	127.9	134.95					
128.1	128.2	132.4	132.56						
135.7									

CHICAGO

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
120.2	120.4	120.6	120.8	127.95	132.15	132.5	132.75		124.1
121.4	124.0	124.4	124.5	133.35	133.5	133.95	134.85		
124.8	125.1	125.2	125.6	135.35	135.55				
126.6	126.8	126.9	127.0						
127.1	127.5	127.6	127.7						
128.05	128.2	128.4	128.5						
128.65	128.7	132.3	133.9						

CLEVELAND

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
118.8	118.9	119.6	119.8	132.25	132.45	133.25	133.3		126.5
120.2	120.3	120.4	120.6	133.95	134.25	134.65			
120.8	121.2	121.4	123.9						
124.2	124.3	124.4	124.5						
124.6	125.0	125.1	125.2						
125.3	125.6	125.7	126.1						
126.4	126.8	127.15	127.5						
127.45	127.65	127.9	128.35						
128.45	128.6	134.3							

DENVER

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
119.8	124.1	125.0	125.6	127.3	127.55	128.2	132.1		126.5
125.8	126.0	127.2	127.8	132.15	132.6	132.85	133.15		
132.2	132.5	132.7	133.0	133.3	133.75	133.85	134.65		
133.4	134.6			135.5	135.15	135.65			

FORT WORTH

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
119.4	120.9	124.4	124.6	132.2	132.35	132.45	132.55		120.9
124.7	124.8	125.0	125.5	132.75	133.5	133.25	133.35		
125.6	126.0	126.6	127.3	133.95	135.4	135.8			
127.7	128.0	128.1	128.3						
128.45	133.1	133.3	132.9						
135.0	135.6								

GREAT FALLS

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
120.4	124.1	125.1	125.5	132.25	132.65	132.95	133.4		123.9
126.5	127.1	127.3	127.8	133.55	134.3	134.55	135.25		
128.0	128.5								

INDIANAPOLIS

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
118.2	123.6	124.2	124.4	128.25	132.7	133.05	133.45		124.9
124.8	126.0	127.0	127.1	133.75	134.35	134.75	134.9		
127.3	127.4	128.3	128.4	134.95					
128.55	128.8	132.6	135.1						
135.7	135.8								

JACKSONVILLE

Center AREA Center SECTOR Discrete Frequencies									Discrete Frequency
VHF (Low)				VHF (High)					
118.6	119.2	120.2	120.6	127.6	128.45	132.1	132.65		124.7
124.3	125.1	125.5	126.5	133.25	133.95	134.25	134.75		
126.9	127.2	128.1	128.5	134.85	135.4	135.05	135.25		
132.3	132.5	132.8	133.8	135.55	135.65				
133.4	133.5	134.3	134.7						

ARTCC COMMUNICATIONS FREQUENCIES

KANSAS CITY

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.8	128.9	119.0	119.2	132.25	132.4	132.65	132.9		123.9
119.4	119.6	119.7	120.2	132.95	133.1	133.15	133.35		
121.0	123.6	123.8	124.2	133.45	133.8	134.3	134.7		
125.2	125.3	125.4	125.9	134.9	135.0	135.4	135.25		
126.4	127.2	127.8	128.0	135.65					
128.1	132.2	132.8							

LOS ANGELES

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
119.0	119.8	124.2	124.5	127.9	128.3	128.6	132.15	123.9	
125.8	125.0	126.0	126.4	133.05	133.25	133.55	134.8		
126.6	127.3	127.4	128.2	134.55	134.75	134.95	135.25		
128.4	132.3	132.5	132.6	135.45					
133.4	133.8	134.2	134.4						
134.6	135.05								

MEMPHIS

Center SECTOR Discrete Frequencies								Center AREA Discrete Frequency
VHF (Low)				VHF (High)				
118.6	119.3	120.1	123.6	132.35	133.0	133.55	133.6	
124.4	124.6	125.4	127.1	134.25	134.45	134.9	135.3	
127.2	127.25	127.3	127.4	135.5	135.7			
127.75	128.0	128.05	128.7					
132.1	132.3	132.5	135.45					

MIAMI

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.9	120.0	120.3	123.6	125.7	127.7	132.7	132.95	120.5	
124.1	124.4	124.5	124.7	133.65	133.8	134.35	134.5		
125.4	125.6	125.8	126.0	134.95	135.15	135.5			
126.4	127.0	127.3	128.25						

MINNEAPOLIS

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
120.3	120.9	125.5	125.9	132.15	133.4	133.55	133.65	118.9	
126.0	126.1	127.2	127.3	133.85	134.25	134.45	134.8		
127.4	127.5	127.8	127.9	134.55	135.45	135.7			
128.2	128.4	132.1	132.6						
134.8									

NEW ORLEANS

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.9	120.7	123.6	124.0	132.6	132.7	133.65	133.85	125.1	
124.1	125.1	125.8	126.0	134.75	135.2				
126.6	126.8	128.1	128.4						

NEW YORK

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
119.6	119.8	120.0	120.2	132.1	132.3	132.95	133.8		
123.6	124.1	124.2	124.8	133.9	134.8	135.45	135.55		
125.1	125.3	125.4	125.5	135.75					
125.6	126.0	126.4	126.6						
126.8	127.95	128.2	128.3						
128.5	128.65	132.6	134.6						
135.1	135.6	135.65	137.65						

OAKLAND

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.4	120.2	120.4	120.6	124.95	128.15	132.35	132.65		
121.2	123.8	123.9	124.0	132.8	132.95	133.3	133.7		
124.2	124.6	125.5	125.9	133.75	134.35	134.7	134.85		
126.5	126.8	127.2	127.5						
127.7	127.8	128.7							

SALT LAKE CITY

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
123.6	124.0	124.4	124.5	132.4	132.5	132.25	132.55		
126.6	127.4	128.4	133.1	132.75	133.25	133.45	134.15		
				134.85	135.7				

SAN ANTONIO

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.2	119.7	121.0	121.2	132.15	132.8	133.75	134.8		
124.2	125.4	125.8	125.9	134.35	134.95				
126.4	126.9	126.95	127.2						
127.4	127.8	128.0	128.2						
128.3	128.4	132.9	133.05						
134.7	134.8								

SEATTLE

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
120.3	120.9	121.2	124.1	133.0	133.5	133.9	134.55		
125.1	125.3	125.6	125.8	134.75					
126.0	128.1	132.1	132.6						
134.95									

WASHINGTON

Center SECTOR Discrete Frequencies									Center AREA Discrete Frequency
VHF (Low)				VHF (High)					
118.6	119.4	119.6	120.3	128.05	132.55	132.85	133.0		
121.0	123.9	124.0	124.1	133.15	133.55	133.65	133.95		
124.7	124.9	125.2	125.8	134.4	135.2				
126.4	127.1	127.6	128.15						
128.6	132.15	132.4	133.25						
135.0	135.4								

Pilot to Forecaster Weather Briefing Service available on 122.6 mc

FSS FREQUENCIES AND TELEPHONE NUMBERS

Flight Service Stations (FSS) provide information on airport conditions, radio aids and other facilities, and process flight plans. Stations providing Airport Advisory Service (AAS) are indicated by the letters AAS following the FSS name. 122.2T is the standard FSS transmitting frequency for this service.

In addition, they provide an aviation weather briefing service. Flight and weather briefing service is provided on the telephone numbers listed. The telephone area code number is shown in parentheses. Each number given is the preferred telephone number to obtain flight weather information. Automatic answering devices are sometimes used on listed lines to give general local weather information during peak workloads. To avoid getting the recorded general weather announcement, use the selected telephone number listed.

*-indicates Pilot's Automatic Telephone Weather Answering Service (PATWAS) available, providing transcribed aviation weather information.

†-indicates a restricted number, use for aviation weather information only.

%-call FSS for "one call" FSS WBAS briefing service.

Flight Service Stations are listed alphabetically, by state. The airport name, on which the FSS is located, is shown in parentheses when different from the FSS name.

FSS's transmit on navigational aid frequencies which are listed first, followed by the identification of the NAVAID.

Standard Flight Service Station civil communications frequencies are 126.7 122.2T 122.1R 135.9 and emergency 121.5. These frequencies are available at all stations listed, unless annotated by a diamond (◆), identifying those stations where complete standard FSS communications frequencies are not available. This diamond is then supplemented with those standard FSS communications frequencies not available, listed by a cross-out, i.e., ~~135.9~~. Additional frequencies, e.g., 302.3.5R, are listed when available. Frequencies transmit and receive unless annotated by the addition of R - Receive Only, T - Transmit Only, X - On Request.

ALABAMA

Location and Frequencies		Code Area	Telephone
niston (AAS) 108.8 329 (ANB)	FSS	(205)	831-2303
rmingham 114.4 224 (BHM)	FSS	(205)	595-6151
	WB	(205)	%
	WB	(205)	595-7101*
othan 111.6 (DHN)	FSS	(205)	794-6683
ntsville 109.0 (HSV)	FSS	(205)	536-1254
	WB	(205)	881-2761†
obile (Bates) 115.3 248 (MOB)	FSS	(205)	342-1177
	WB	(205)	347-2762†
ontgomery (Dannelly) 112.1 (M,M)	FSS	(205)	269-4368
	WB	(205)	263-0621†
uscle Shoals (AAS) 116.5 (MSL)	FSS	(205)	383-6541
	FSS	(205)	383-6430
uscaloosa (AAS) 117.8 (TCL)	FSS	(205)	758-3628

ARIZONA

uglas (AAS) (Bisby-Douglas) 110.0 (DUG)	FSS	(602)	EM 4-5353
agstaff	WB	(602)	774-1424
oenix (Sky Harbor) 115.6 326 (PHX)	FSS	(602)	261-4295
	WB	(602)	BR 5-8501*
	WB	(602)	%
escott (AAS) 114.1 347 (PRC)	FSS	(602)	HI 5-2160
cson 117.1 338 (TUS)	FSS	(602)	294-1463
	WB	(602)	%
nslow	WB	(602)	289-3592
ma 116.8 (YUM)	FSS	(602)	725-2601
	WB	(602)	725-2605
			(0430-2030)

ARKANSAS

Dorado (AAS) (Goodwin) 108.2 368 (ELD)	FSS	(501)	UN 3-9313
yetteville (AAS) (Drake) 116.4 (FYV)	FSS	(501)	HI 2-8277
. Smith 110.4 311 (FSM)	FSS	(501)	MI 6-1791
	WB	(501)	MI 6-5731†
rrison (AAS) 110.8 (HRO)	FSS	(501)	EM 5-3433

ARKANSAS (Con't)

Location and Frequencies		Code Area	Telephone
Little Rock	WB	(501)	FR 4-1546†
Pine Bluff (AAS) (Grider) 116.0 (PBF)	FSS	(501)	JE 5-0652
Texarkana 116.3 329 (TXK)	FSS	(501)	774-6721
Walnut Ridge (AAS) 114.5 (ARG)	FSS	(501)	TU 6-6671

CALIFORNIA

Arcata (AAS) 233 (CV)	FSS	(707)	TE 9-7071
Bakersfield (Meadows) 115.4 239 (BFL)	FSS	(805)	399-1787
	WB	(805)	%
			(0600-2200)
Bishop			UP 3 3213
			(0545-1915)
Blythe (AAS) 117.4 251 (BLH)	FSS	(714)	948-6638
Burbank	WB	(213)	848-1460†
	WB	(213)	848-3285*
Crescent City (AAS) (McNamara FLD) 109.0 (CEC)	FSS	(707)	IN 4-2514
Daggett (AAS) 113.2 365 (DAG)	FSS	(714)	CL 4-2223
Fresno (Air Terminal) 112.9 344 (FAT) 3023.5RX	FSS	(209)	251-8260
	FSS	(209)	251-8269
	WB	(209)	%
Imperial (AAS) 115.9 (IPL)	FSS	(714)	355-1948
Long Beach	WB	(213)	429-3563†
	WB	(213)	DA 3-4626*
			Via Los Angeles
Los Angeles (International) 113.6 332 (LAX)	FSS	(213)	SP 6-2727
	WB	(213)	670-2223*
	WB	(213)	SP 6-1640*
Marysville (AAS) (Yuba Co.) 305 (MYV)	FSS	(916)	SH 2-1449
Montague (AAS) (Siskiyou Co.) 382 (SIY)	FSS	(213)	459-3003
Mt Shasta	WB	(916)	926-2227
			(0730-1600)
Needles (AAS) 115.2 269 (EED)	FSS	(714)	326-3511
Oakland (Metropolitan-International) 116.8 362 (OAK)	FSS	(415)	638-5714
	WB	(415)	%
	WB	(415)	832-5418*
			(Via San Francisco)
Ontario 117.0 (ONT)	FSS	(714)	YU 4-6631

FSS FREQUENCIES AND TELEPHONE NUMBERS

CALIFORNIA (Con't.)

Location and Frequencies		Code Area	Telephone
Palmdale (USAF Plant #42) 114.5 317 (PMD)	FSS	(805)	947-3502
Paso Robles (AAS) 114.3 (PRB)	FSS	(415)	238-2448
Red Bluff (AAS) (Bidwell) 115.7 338 (RBL)	FSS	(916)	527-0242
	WB	(916)	%
Sacramento 115.2 (SAC)	FSS	(916)	GA 8-6500
	WB	(916)	%
			(0400-2000)
Salinas 117.3 (SNS)	FSS	(408)	422-4723
San Diego (Lindbergh) 117.8 (SAN)	FSS	(714)	296-3181
	WB	(714)	%
			(0330-2130)
San Francisco	WB	(415)	589-6711*
	WB	(415)	761-2052†
	WB	(415)	588-0312
Santa Barbara 114.9 (SBA)	FSS	(805)	967-2305
Santa Catalina Island	WB		Avalon 703
Santa Maria	WB	(805)	WA 5-3525
			(0600-2200)
Stockton 116.0 (SCK)	FSS	(209)	466-3684
	WB	(209)	464-6283†
Thermal (AAS) 116.2 (TRM)	FSS	(714)	EX 9-5155
Ukiah (AAS) 112.3 (UKI)	FSS	(707)	462-6136

COLORADO

Akron (AAS) 114.4 388 (AKO)	FSS	(303)	345-2271
Alamosa	WB	(303)	589-2547
			(0400-2000)
Colorado Springs	WB	(303)	632-0535†
Denver (Stapleton Air Field) 116.3 379 (DEN)	FSS	(303)	297-3277
	WB	(303)	297-3049†
	WB	(303)	388-3653*
Eagle (AAS) (EGE)	FSS	(303)	328-2125
Grand Junction (Walker Field) 112.4 396 (GJT)	FSS	(303)	CH 2-1801
	WB	(303)	243-0914
La Junta (AAS) (LHX)	FSS	(303)	DU 4-4311
Pueblo (Memorial) 116.7 373 (PUB)	FSS	(303)	948-3301
	WB	(303)	948-3376†
Trinidad 329 (TAD)	FSS	(303)	846-2623

CONNECTICUT

Bridgeport	WB	(203)	378-2344
Hartford (Bradley Field)	WB	(203)	247-2855†
New Haven	WB	(203)	469-2141†
			(0630-1700)
Windsor Locks (Bradley Field) (BDL) 3023.5RX	FSS	(203)	NA 3-2416
	WB	(203)	NA 3-5590

DELAWARE

Wilmington	WB	(302)	EA 8-2755†

DISTRICT OF COLUMBIA

Washington (Chantilly, Va) Dulles Intl (27.5¢ toll)	WB	(703)	661-8526†
Washington (National) 111.0 332 (DCA)	FSS	(202)	DI 7-1442
	FSS	(202)	NA 8-0491
	WB	(202)	%
	WB	(202)	DI 7-8016*

FLORIDA

Apalachicola	WB	(305)	653-3171
Crestview (AAS) 115.9 350 (CEW)	FSS	(305)	MU 2-2795

FLORIDA (Con't.)

Location and Frequencies		Code Area	Telephone
Daytona Beach 112.6 (DAB)	FSS	(305)	255-[illegible]
	WB	(305)	[illegible]
Ft. Myers (AAS) (Page Field) 117.6 341 (FMY)	FSS	(813)	[illegible]
	WB	(813)	[illegible]
			(0630-[illegible]
			(0600-2[illegible]
Gainesville (AAS) 116.2 (GNV)	FSS	(305)	FR [illegible]
Jacksonville (Imeson) 114.5 344 (JAX)	FSS	(305)	[illegible]
	WB	(305)	[illegible]
			(0300-[illegible]
	WB	(305)	[illegible]
Key West (AAS) (International) 115.3 332 (EYW)	FSS	(305)	[illegible]
	WB	(305)	[illegible]
Lakeland (Drane)	WB	(305)	[illegible]
			(0600-2400 Nov 15-Mar [illegible]
			(0600-1700 Mar 16-Nov [illegible]
Melbourne (AAS) (J.F.K. Mem'l) 109.8 257 (MLB)	FSS	(305)	PA [illegible]
Miami 115.9 365 (MIA)	IFSS	(305)	[illegible]
	WB	(305)	%
	WB	(305)	[illegible]
Orlando (Herndon) 112.2 (ORL)	FSS	(305)	[illegible]
	WB	(305)	[illegible]
			[illegible]
Pensacola 326 (PNS)	FSS	(305)	HE [illegible]
St Petersburg via Tampa	WB	(813)	[illegible]
Tallahassee 117.5 379 (TLH)	FSS	(305)	[illegible]
	WB	(305)	[illegible]
Tampa (Tampa International) 388 (TPA) 3023.5 RX	FSS	(813)	[illegible]
	WB	(813)	[illegible]
	WB	(813)	[illegible]
Vero Beach (AAS) 117.3 (VRB)	FSS	(305)	[illegible]
W Palm Beach (Palm Beach International) 115.5 356 (PBI)	FSS	(305)	[illegible]
	WB	(305)	%

GEORGIA

Albany (AAS) 112.9 (ABY)	FSS	(912)	[illegible]
Alma (AAS) 115.1 (AMG)	FSS	(912)	[illegible]
Athens	WB	(404)	[illegible]
Atlanta (Fulton Co.) (AAS) 108.2 (FTY)	FSS	(404)	[illegible]
	WB	(404)	[illegible]
	WB	(404)	[illegible]
Augusta (Bush Fld) 113.9 385 (AGS)	FSS	(404)	[illegible]
	WB	(404)	[illegible]
Brunswick (AAS) (Malcom McKinnon) 109.8 (SSI)	FSS	(912)	[illegible]
Columbus (Muscogee County) 117.1 335 (CSG)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
			[illegible]
Macon (Cochran) 114.2 (MCN)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
Rome	WB	(404)	[illegible]
			[illegible]
			[illegible]
Savannah (Travis) 112.7 (SAV)	FSS	(912)	[illegible]
	WB	(912)	[illegible]
Valdosta (AAS) 110.4 (VLD)	FSS	(912)	[illegible]

IDAHO

Boise (Air Terminal) 113.3 359 (BOI)	FSS	[illegible]	[illegible]
	WB	[illegible]	%
Burley (AAS) 114.1 272 (BYI)	FSS	[illegible]	[illegible]
Idaho Falls (Fanning Field) 108.2 350 (IDA)	FSS	[illegible]	[illegible]
Malad City 117.4 332 (MLD)	FSS	[illegible]	[illegible]
Mullan Pass 117.8 411 (MLP)	FSS	[illegible]	[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

IDAHO (Con't.)

Location and Frequencies		Code Area	Telephone
.ewiston	WB	(208)	SH 3-3841
			(0330-1930)
Pocatello 114.4 (PIH)	FSS	(208)	232-2032
	WB	(208)	233-0137

ILLINOIS

Champaign (University of Ill.) 110.0 (CMI)	FSS	(217)	822-5211
Chicago	WB	(312)	686-2155†
	WB	(312)	667-5055*
Joliet (AAS) 112.3 (JOT)	FSS	(815)	725-3144
	FSS	(312)	242-3111
Moline (Quad City) 114.4 (MLI)	FSS	(309)	762-2412
	WB	(309)	762-1726
Peoria (Greater Peoria) 115.2 356 (PIA)	FSS	(309)	697-0751
	WB	(309)	637-6422†
Quincy (Baldwin) 113.1 (UIN)	FSS	(217)	TU 5-3251
Rockford (Greater Rockford) 110.8 (RFD) 3023.5RX	FSS	(815)	965-6758
	WB	(815)	963-5816†
			(0515-2115)
Springfield (Capital) 112.7 (CAP) 379 (SPI)	FSS	(217)	544-9012
	WB	(217)	523-5812
Vandalia (AAS) 114.3 (VLA)	FSS	(618)	283-0478

INDIANA

Evansville (Dress Memorial) 113.3 (EVV) 3023.5RX	FSS	(812)	HA 2-8120
	WB	(812)	HA 4-9613*
Ft. Wayne (Baer Field) 113.9 251 (FWA)	FSS	(219)	747-3139
	WB	(219)	747-2577†
Indianapolis (Weir-Cook) 116.3 266 (IND)	FSS	(317)	CH 4-9561
	WB	(317)	CH 4-2411*
	WB	(317)	CH 4-3382†
Lafayette (AAS) (Purdue University) 113.7 (LAF)	FSS		RI 3-1802 3
South Bend (St. Joseph Co.) 115.4 (SBN)	FSS	(219)	CE 3-4433
	WB	(219)	234-3937†
Terre Haute (Hulman) 111.8 245 (HUF)	FSS		C-2704

IOWA

Burlington (AAS) 111.4 (BRL)	FSS	(319)	752-4734
Cedar Rapids 117.6 (CID)	FSS	(319)	364-3041
Davenport (via Moline Ill.)	WB	(319)	326-2677
Des Moines 114.1 (DSM)	FSS	(515)	285-5691
	WB	(515)	284-4493†
Dubuque	WB	(319)	582-0174
			(0545-2105)
Mason City 114.9 (MCW)	FSS	(515)	GA 3-7512
Ottumwa 111.6 (OTM)	FSS	(515)	MU 2-1846
Sioux City 116.5 (SUX)	FSS	(712)	258-1060
	WB	(712)	252-0244
			Ext 210
Waterloo 108.2 (ALO)	FSS	(319)	AD 3-5528
	WB	(319)	234-9902

KANSAS

Accordia	WB	(913)	CH 3-3141
Chanute 109.2 (CNU)	FSS	(316)	HE 1-4450
Dodge City (AAS) 108.2 (DDC)	FSS	(316)	HU 3-3441
	WB	(316)	HU 3-3311
Emporia 112.8 (EMP)	FSS	(316)	DI 2-7475
Garden City (AAS) (New Municipal) 113.3 (GCK)	FSS	(316)	BR 6-2531
Goodland (AAS) 115.1 (GLD)	FSS	(913)	TW 9-7154
	WB	(913)	TW 9-2360†

KANSAS (Con't.)

Location and Frequencies		Code Area	Telephone
Hill City (AAS) 113.7 (HLC)	FSS	(913)	674-5642
Hutchinson 116.8 (HUT)	FSS	(316)	2-4851
Manhattan (AAS) (MHK) 121.7 121.5	FSF	(913)	PR 6-9751
			(0600–1800)
Russell 114.5 (RSL)	FSS	(913)	483-2312
Salina 115.3 (SLN)	FSS	(913)	TA 5-5309
Topeka (Phillip Billard) 117.8 (TOP)	FSS	(913)	CE 2-5478
	WB	(913)	CE 4-2592†
Wichita 113.8 332 (ICT)	FSS	(316)	WH 2-2261 2
	WB	(316)	WH 2-3284*
	WB	(316)	WH 3-1063†

KENTUCKY

Bowling Green (Warren County) 117.9 (BWG)	FSS	(502)	VI 3-4424
Erlanger (Gtr Cincinnati Arpt)	WB	(513)	381-8195†
Lexington (Blue Grass) 117.0 (LEX)	FSS	(606)	254-5143
	WB	(606)	255-1774†
London 116.1 (LOZ)	FSS	(606)	864-4410
Louisville (Bowman) 114.8 (LOU)	FSS	(502)	451-5344
	WB	(502)	368-2188†
Paducah (Barkley) 117.3 356 (PUK)	FSS	(502)	442-1551

LOUISIANA

Alexandria 116.1 251 (AEX)	FSS	(318)	445-3663
	WB	(318)	433-7539*
			(0600–2200)
Baton Rouge (Ryan) 116.5 (BTR) 3023.5RX	FSS	(504)	EL 5-2763
	WB	(504)	EL 7-9943†
Lafayette 110.8 375 (LFT)	FSS		CE 5-3752
	WB		234-1220†
Lake Charles 113.4 242 (LCH)	FSS	(318)	477-1784
	WB	(318)	477-5227†
Monroe (Selman) 113.7 (MLU)	FSS	(318)	322-3157
New Orleans 113.2 338 (MS)	FSS	(504)	943-5535
	WB	(504)	523-4311*
	WB	(504)	729-2520†
Shreveport (Greater Shreveport) 117.4 230 (SHV)	FSS	(318)	ME 1-3661
	WB	(318)	631-1141†

MAINE

Augusta (State) 111.4 221 (AUG)	FSS	(207)	622-6491
Caribou	WB	(207)	496-8931
Houlton (Memorial International) 108.2 (HUL)	FSS	(207)	532-2475
Millinocket (AAS) 117.9 344 (MLT)	FSS	(207)	723-8343
Old Town (OLD)	FSS	(207)	827-2363
	FSS	(207)	827-4010
Portland (PWM)	FSS	(207)	SP 5-0602
	WB	(207)	775-3071†

MARYLAND

Baltimore	WB	(301)	761-1333*
	WB	(301)	766-0757*
			(0600–1800)
Salisbury (Salisbury-Wicomico) 114.5 (SBY)	FSS	(301)	742-7324

MASSACHUSETTS

Location and Frequencies		Code Area	Telephone
Boston (Logan) 117.7 382 (BOS) 3023.5RX	FSS	(617)	LO 7-0099
	FSS	(617)	LO 7-0015
	WB	(617)	%
	WB	(617)	569-1773*
			(0600-2300)
Nantucket (AAS) 112.7 (ACK) 3023.5R	FSS	(617)	228-0815
	WB	(617)	228-0971
Worcester (ORH)	FSS	(617)	PL 5-6083
	WB	(617)	798-2124†

MICHIGAN

Alpena	WB	(517)	354-8733*
			(0645-1915)
Battle Creek (Kellogg) 109.4 (BTL)	FSS	(616)	2-7878
Detroit (Metropolitan Wayne) 388 (DTW)	FSS	(313)	PA 2-8790
			274-5310*
	WB	(313)	274-5310*
Detroit (Willow Run)	WB	(313)	482-5001†
	WB	(313)	CR 4-5310
Flint (Bishop) 111.6 (FNT)	FSS	(313)	CE 3-6250
	WB	(313)	CE 4-3987*
Grand Rapids (Kent County) 110.2 (GRR)	FSS	(616)	949-4090
	WB	(616)	949-4251†
Houghton (AAS) (Houghton County) 112.8 227 (CMX)	FSS	(906)	482-0380
Houghton Lake (Roscommon County) 122.8 (HTL)	WB	(517)	366-5392
Jackson (AAS) (Reynolds Mun.) 109.6 (JXN)	FSS	(517)	ST 4-9640
Lansing (Capital City) 110.8 (LAN) 3023.5RX	FSS	(517)	2-9237
	WB	(517)	IV 9-2415†
Marquette 109.0 (MQT)	FSS	(906)	GR 5-4197
	WB	(906)	CA 6-8642†
			(0515-2100)
Muskegon (Muskegon County) 115.2 (MKG)	FSS	(616)	SW 8-1222
	WB	(616)	SW 8-3048
Pellston (AAS) (Emmet County) 111.8 332 (PLN)	FSS	(616)	LE 9-8401
Saginaw (Tri City) 112.9 212 (MBS)	FSS	(517)	OX 5-6621
Saulte Ste Marie (AAS) 112.2 400 (SSM)	FSS	(906)	ME 2-8271
	WB	(906)	ME 2-7751
Traverse City 112.4 365 (TVC)	FSS	(616)	947-5056

MINNESOTA

Alexandria (AAS) 112.8 (AXN)	FSS	(612)	763-3710
Duluth	WB	(218)	722-7982†
Hibbing (Chisholm-Hibbing) (AAS) 110.8 (HIB) ◆~~135.9~~	FSS	(218)	262-1820
International Falls	WB	(218)	285-5151
Minneapolis (Wold-Chamberlain) 117.3 266 (MSP)	FSS	(612)	PA 9-9386
	FSS	(612)	PA 9-1957
	WB	(612)	PA 9-4429†
	WB	(612)	PA 9-9339*
Redwood Falls (AAS) 113.3 (RWF)	FSS	(507)	ME 7-8530
Rochester 112.0 (RST)	FSS	(507)	289-1579
	WB	(507)	289-0026†
St. Cloud	WB	(612)	251-3213*
			(0400-2200)
St. Paul	WB	(612)	PA 9-4429†

MISSISSIPPI

Greenwood (AAS) 114.7 (GRW)	FSS	(601)	GL 3-2631

MISSISSIPPI (Con't.)

Location and Frequencies		Code Area	Telephone
Jackson (Thompson Field) 112.6 260 (JAN)	FSS	(601)	925-5[illegible]
	WB	(601)	939-58[illegible]
McComb (AAS) (Pike County) 116.7 (MCB)	FSS	(601)	684-[illegible]
Meridian (AAS) (Key Field) 117.0 356 (MEI)	FSS	(601)	482-[illegible]
	WB	(601)	485-[illegible]
Vicksburg	WB	(601)	636-[illegible]
			(0630-1630 Mon-[illegible]
			(0630-1130 Sat, Sun, Holidays

MISSOURI

Cape Girardeau (CGI) ◆~~135.9~~	FSS	(314)	ED 4-[illegible]
Columbia 111.2 (CBI)	FSS	(314)	GI 3-[illegible]
	WB	(314)	GI 3-[illegible]
Joplin (JLN)	FSS	(417)	MA 3-[illegible]
Kansas City 112.6 359 (MKC)	FSS	(816)	GR 1-[illegible]
	WB	(816)	GR 1-[illegible]
	WB	(816)	GR 1-[illegible]
Kirksville (AAS) 114.6 (IRK)	FSS	(816)	MC 4-[illegible]
St. Joseph (Rosecrans Memorial) 108.2 (STJ)	FSS	(816)	AD 6-[illegible]
St. Louis (Lambert) 117.4 338 (STL)	FSS	(314)	PE 1-[illegible]
	WB	(314)	PE 1-[illegible]
	WB	(314)	PE 1-[illegible]
	WB	(314)	TH 8-[illegible]
			(Hangar)
Springfield 116.9 254 (SGF)	FSS	(417)	UN 2-[illegible]
	WB	(417)	UN 6-[illegible]
Vichy (AAS) (Rolla National) 117.7 (VIH) 3023.5RX	FSS	(314)	AX 9-[illegible]

MONTANA

Billings (Logan Field) 114.5 400 (BIL)	FSS	(406)	245-[illegible]
	WB	(406)	[illegible]
Bozeman (AAS) (Gallatin Field) 112.2 329 (BZN) 3023.5RX	FSS	(406)	586-[illegible]
Butte (AAS) (Silver Bow) 111.6 (BTM)	FSS	(406)	723-[illegible]
Cut Bank (AAS) 114.4 263 (CTB)	FSS	(406)	938-[illegible]
Dillon (AAS) 113.0 379 (DLN)	FSS	(406)	683-[illegible]
Glasgow	WB	(406)	228-[illegible]
			(2200-[illegible]
Great Falls (International) 115.1 371 (GTF) 3023.5RX	FSS	(406)	452-[illegible]
	WB	(406)	452-[illegible]
Havre	WB	(406)	265-[illegible]
			(2400-[illegible]
Helena 117.7 317 (HLN)	FSS	(406)	442-[illegible]
	WB	(406)	442-[illegible]
Lewistown (AAS) 112.0 353 (LWT)	FSS	(406)	538-[illegible]
Livingston (AAS) (Mession Field) 116.1 224 (LVM)	FSS	(406)	222-[illegible]
Miles City 112.1 320 (MLS)	FSS	(406)	232-[illegible]
Missoula (AAS) (Missoula City) 112.8 308 (MSO)	FSS	(406)	542-[illegible]
	WB	(406)	542-[illegible]

NEBRASKA

Chadron (AAS) 113.4 275 (CDR)	FSS	(308)	HE 2-[illegible]
Grand Island 112.0 (GRI)	FSS	(308)	382-[illegible]
	WB	(308)	384-[illegible]
Imperial (AAS) (IML)	FSS	(308)	TL 2-[illegible]
Lincoln (Union) (LKN) 3023.5RX	FSS	402	477-[illegible]
	WB	402	[illegible]
Norfolk	WB	(402)	371-[illegible]
			(2400-[illegible]

FSS FREQUENCIES AND TELEPHONE NUMBERS

NEBRASKA (Con't.)

Location and Frequencies		Code Area	Telephone
...rth Plate (AAS) (Lee Bird) 117.4 224 (LBF)	FSS	(308)	LE 2-4034†
	WB	(308)	532-9577†
...aha (Eppley) 116.3 320 (OMA)	FSS	(402)	341-6178
	WB	(402)	341-5436†
	WB	(402)	347-3603*
...ttsbluff (AAS) 112.6 341 (BFF)	FSS	(308)	635-2615
	WB	(308)	632-6822
...ney 115.7 (SNY)	FSS	(308)	254-3130
...ventine	WB	(402)	376-3402

NEVADA

...o 114.5 391 (EKO) ◆~~136.9~~	FSS	(702)	738-6506
...AAS) (Yelland Field) 110.6 (ELY)	FSS	(702)	264-2045
	WB	(702)	264-2403
...s Vegas (McCarran) 116.9 206 (LAS)	FSS	(702)	736-1573 4
	WB	(702)	%
...velock (AAS) (Derby Field) 116.5 209 (LOL)	FSS	(702)	CR 3-2448
...no 117.9 254 (RNO)	FSS	(702)	FA 9-4444
	WB	(702)	784-5402†
...nopah (Nye County) 117.2 221 (TPH)	FSS	(702)	482-6421
...nemucca	WB	(702)	623-2203

NEW HAMPSHIRE

...ncord 113.9 (CON)	FSS	(603)	224-7474
	WB	(603)	225-5191
			(0600-1900)
...anon (Regional) 111.6 (LEB)	FSS	(603)	298-8360

NEW JERSEY

...antic City	WB	(609)	641-4327†
...liville 115.2 363 (MIV)	FSS	(609)	825-1173
...ark	WB	(201)	MA 4-8118
			MA 4-7272*
			(Via New York)
...erboro (TEB)	FSS	(201)	AT 8-9092

NEW MEXICO

...uquerque 113.2 230 (ABQ)	FSS	(505)	242-8857
	WB	(505)	242-2661*
	WB	(505)	CH 3-7832
...lsbad (AAS) 116.3 (CNM)	FSS	(505)	TU 5-2042
...rton	WB	(505)	374-9511
			(0430-1130 Mon-Fri)
			(0430-0930 Sat)
...ing (AAS) 108.6 (DMN)	FSS	(505)	546-2726
...nington (AAS) 115.3 (FMN)	FSS	(505)	DA 5-9271
...rts (AAS) 116.5 (GNT)	FSS	(505)	AT 7-3011
...bs (Lea County) 111.0 (HOB)	FSS	(505)	EX 3-3222
...Vegas (AAS) 117.3 (LVS)	FSS	(505)	GA 5-7411
...n	WB	(505)	445-3891
			(0545-1225)
...well (AAS) 116.1 305 (ROW)	FSS	(505)	622-6780
	WB	(505)	622-5850
			(0430-1230)
...a Fe 110.6 (SAF)	FSS	(505)	YU 3-6581

NEW MEXICO (Con't.)

Location and Frequencies		Code Area	Telephone
Silver City	WB	(505)	538-9023
			(0530-2000 Mon-Fri)
			(0530-1330 Sat)
Truth or Consequences (AAS) 112.7 (TCS)	FSS	(505)	894-3277
Tucumcari (AAS) 113.6 (TCC)	FSS	(505)	461-2900
Zuni 113.4 (ZUN)	FSS	(505)	782-3770

NEW YORK

Albany (Albany County) 116.9 (ALB)	FSS	(518)	869-9225
	WB	(518)	UN 9-9173†
Binghamton (Broome County) 114.3 317 (BGM)	FSS		RA 9-6145
	WB	(607)	797-0784†
Buffalo (Greater Buffalo) 116.4 260 (BUF)	FSS	(716)	NF 2-6083
	WB	(716)	632-5042*
	WB	(716)	632-6952†
Elmira (Chemung County) 113.7 375 (ELM)	FSS	(607)	RE 9-2471
Glens Falls (AAS) (Warren County) 110.2 (GFL)	FSS	(518)	RX 3-2593
Islip (Long Island)	FSS	(914)	SC 3-4330
	WB	(914)	SC 3-4330
	WB	(914)	SC 3-4330
	WB		OL 6-7474*
Massena (AAS) 114.1 (MSS)	FSS	(315)	RO 9-2033
New York (John F. Kennedy Intl)	IFSS	(212)	995-8659
	WB	(212)	995-9151†
New York (LaGuardia)	WB	(212)	NE 9-2118†
Poughkeepsie (Dutchess County) 112.2 (POU)	FSS	(914)	462-3400
Rochester (Monroe County) 110.0 (ROC)	FSS	(716)	BE 5-5625
	WB	(716)	FA 8-7391†
Syracuse (Hancock) 117.0 350 (SYR)	FSS	(315)	GL 4-2479
	WB	(315)	454-1214*
Utica (Oneida) 108.6 (UCA)	FSS	(315)	RE 6-9023
Watertown (AAS) 109.8 (ART) 3023.5RX	FSS	(315)	NE 9-3321

NORTH CAROLINA

Asheville 112.2 (AVL)	FSS	(704)	684-4401
	WB	(704)	684-6906
Cape Hatteras	WB	(919)	995-2321
Charlotte	WB	(704)	399-1019†
Durham	FSS	(919)	596-2446
	WB	(919)	596-2326
Elizabeth City (Coast Guard Air Station) 109.4 (ECG)	FSS	(919)	338-3808
Fayetteville (Grannis Field) 108.8 (FAY)	FSS	(919)	483-7904
Greensboro	FSS	(919)	275-6341
	WB	(919)	299-9499†
Hickory (AAS) 110.8 (HKY)	FSS	(704)	DA 7-8281
New Bern (AAS) (Simmons-Nott) 108.4 379 (EWN)	FSS	(919)	ME 7-2080
Raleigh-Durham 117.2 350 (RDU)	FSS	(919)	787-4289
	WB	(919)	787-4092†
Rocky Mount (AAS) 117.8 (RMT)	FSS	(919)	446-6637
Wilmington (New Hanover County) 117.0 (ILM)	FSS	(919)	762-7567
	WB	(919)	762-3240
Winston-Salem	WB	(919)	724-2208†

NORTH DAKOTA

Bismarck 116.5 230 (BIS 3023.5RX	FSS	(701)	CA 3-8790
	WB	(701)	223-0920†
Dickinson (AAS) 112.9 308 (DIK)	FSS	(701)	224-2989
Fargo (Hector) 116.2 365 (FAR)	FSS	(701)	AD 5-8894
	WB	(701)	232-1584
Grand Forks (International) 109.4 (GFK)	FSS	(701)	772-3291
Jamestown (AAS) 114.5 344 (JMS)	FSS	(701)	CL 2-4350
Minot (International) 117.1 209 (MOT)	FSS	(701)	833-8112
Williston	WB	(701)	473-3198†
			(0445-2045)

FSS FREQUENCIES AND TELEPHONE NUMBERS

OHIO

Location and Frequencies		Code Area	Telephone
Akron 114.6 362 (ACO)	FSS	(216)	ST 4-1246/7
	WB	(216)	896-2246†
Canton	WB	(216)	499-7933†
Cincinnati (Lunken) 112.9 335 (CVG)	FSS	(513)	321-1434
	WB	(513)	381-8195†
	WB	(513)	381-2300*
	WB	(513)	381-6706†
Cleveland (Hopkins) 113.6 344 (CLE)	FSS	(216)	267-3700
	WB	(216)	267-3410*
	WB	(216)	267-0149
Columbus 391 (CMH)	FSS	(614)	237-8478
	WB	(614)	%
Dayton 117.5 (DAY)	FSS	(513)	898-4639
	WB	(513)	898-4620†
			(Vandalia Exchange)
Findlay 108.2 209 (FDY)	FSS	(419)	GA 2-3237
Mansfield 108.8 374 (MFD)	FSS	(614)	524-5323
	WB	(614)	522-7070
			(0600-1800)
Toledo (Express) (TOL)	FSS	(419)	242-4171
	WB	(419)	865-4472†
Youngstown 109.0 (YNG)	FSS	(216)	LI 5-8041
	FSS	(216)	856-4806
	WB	(216)	856-4801†
Zaneville (AAS) 111.4 275 (ZZV)	FSS	(614)	452-8611

OKLAHOMA

Ardmore (AAS) 116.7 400 (ADM)	FSS	(405)	CA 3-6772
	FSS	(405)	DU 9-5441
Gage (AAS) 115.6 (GAG)	FSS	(405)	923-2601
Hobart (AAS) 111.8 (HBR)	FSS	(405)	GE 6-4234
McAlester (AAS) 112.0 (MLC)	FSS	(918)	GA 3-4091
Oklahoma City (Will Rogers) 115.0 350 (OKC)	FSS	(405)	SU 9-7452
	WB	(405)	MU 5-4433*
	WB	(405)	MU 5-6350†
Ponca City (AAS) 113.2 368 (PNC)	FSS	(405)	RO 5-5485
Tulsa 114.4 245 (TUL)	FSS	(918)	TE 8-3316
	WB	(918)	TE 5-4775†
			TE 5-2364*

OREGON

Astoria	WB	(503)	861-2722
Baker (AAS) 115.3 221 (BKE)	FSS	(503)	523-2961
Eugene (AAS) (Mahlon-Sweet) 112.9 248 (EUG)	FSS	(503)	DI 3-7738
	WB	(503)	344-0141†
Klamath Falls (Kingsley Field) 115.9 242 (LMT) 3023.5RX	FSS	(503)	TU 4-8223
	WB	(503)	TU 2-5060
			(0800-1600)
Meacham	WB	(503)	Meacham 2
			(0700-1500)
Medford 113.6 263 (MFR)	FSS	(503)	772-6523
	WB	(503)	773-1067
North Bend (AAS) 112.1 (OTH)	FSS	(503)	756-4916
Pendleton 114.7 341 (PDT) 3023.5RX	FSS	(503)	276-1761
	WB	(503)	276-1852
Portland (International) 116.6 332 (PDX)	FSS	(503)	AT 2-7293
	WB	(503)	AT 2-2285*
	WB		%
Redmond (AAS) (Roberts Field) 117.6 368 (RDM)	FSS	(503)	548-2522

OREGON (Con't.)

Location and Frequencies		Code Area	Telephone
Salem	WB	(503)	363-[illegible]
			(0530-2130 Monday
The Dalles (AAS) 117.2 230 (DLS)	FSS	503	PO [illegible]

PENNSYLVANIA

Allentown (Bethlehem-Easton) 117.5 321 (ABE)	FSS	(215)	264-[illegible]
	WB	(215)	264-[illegible]
Altoona (Blair County) 108.8 (AOO)	FSS	(814)	[illegible]
Bradford (Bradford-McKean) 116.6 224 (BFD)	FSS	(814)	[illegible]
DuBois 356 (DUJ)	FSS	(814)	DA [illegible]
Erie (Port Erie) 112.7 372 (ERI)	FSS	(814)	TE [illegible]
	WB	(814)	TE [illegible]
Harrisburg (Harrisburg-York State) 112.5 338 (HAR)	FSS	(717)	[illegible]
	WB	(717)	[illegible]
North Philadelphia 112.0 (PNE)	FSS	(215)	DR [illegible]
	WB	(717)	SA [illegible]
	WB	(717)	SA [illegible]
			(0500-[illegible]
Philipsburg (AAS) (Black Moshannon) 115.5 236 (PSB)	FSS	(717)	DI [illegible]
Pittsburgh (Allegheny) 117.1 254 (AGC)	FSS	(412)	HC [illegible]
	WB	(412)	[illegible]
			(0530-[illegible]
	WB	(412)	[illegible]
	WB	(412)	[illegible]
Reading	WB	(412)	[illegible]
			(0700-0900 Sun. 0700-[illegible]
			(0700-1630 Mon-[illegible]
Scranton	WB	(412)	[illegible]
Wilkes-Barre (Wilkes-Barre/Scranton) 117.8 (AVP)	FSS	(412)	GL [illegible]
	WB	(412)	[illegible]
			(0[illegible]
Williamsport (Williamsport/Lycoming) 114.4 385 (IPT)	FSS	(717)	[illegible]
	WB	(717)	[illegible]
			(0830-[illegible]

RHODE ISLAND

Providence (Green) 115.6 (PVD)	FSS	(401)	WE [illegible]
	WB	(401)	[illegible]

SOUTH CAROLINA

Anderson (AAS) 108.6 (AND)	FSS	(803)	CA [illegible]
	FSS	(803)	CA [illegible]
Charleston 113.5 329 (CHS) 3023.5RX	FSS	(803)	SW [illegible]
	WB	(803)	SP [illegible]
	WB	(803)	[illegible]
			[illegible]
Columbia 114.7 (CAE)	FSS	(803)	AL [illegible]
	WB	(803)	[illegible]
Florence (AAS) 115.2 (FLO)	FSS	(803)	[illegible]
	WB	(803)	[illegible]
Greer	FSS	(803)	[illegible]
			[illegible]
			Spartanburg [illegible]
Greenville	WB	(803)	[illegible]
			[illegible]
Myrtle Beach 116.0 (MYR) 121.5, 121.7	FSS	(803)	[illegible]
			[illegible]
Spartanburg	WB	(803)	[illegible]
			[illegible]

SOUTH DAKOTA

Location and Frequencies		Code Area	Telephone
erdeen 113.0 329 (ABR)	FSS	(605)	BA 5-5264
	WB	(605)	225-7157†
con (W.H. Howes) 117.6 391 (HON)	FSS	(605)	EL 2-3806
	WB	(605)	352-2495† (0500-2100)
erre (AAS) 112.5 347 (PIR)	FSS	(605)	224-5894
apid City 112.3 254 (RAP)	FSS	(605)	FI 2-2280
	WB	(605)	342-0258
oux Falls 115.0 245 (FSD)	FSS	(605)	ED 8-4841
	WB	(605)	338-1441†
sterown (AAS) 116.6 (ATY)	FSS	(605)	TU 6-4581

TENNESSEE

ountville	WB	(615)	323-8242
attanooga	WB	(615)	892-3747†
ossville (AAS) (Crossville-Cumberland) 117.6 (CSV)	FSS	(615)	484-6711
ersburg (AAS) 116.8 (DYR)	FSS	(901)	AT 5-4842 (0600-2700)
kson (AAS) (McKellar) 109.4 (JKS) 3023.5RX	FSS	(901)	7-0611
nson City	WB	(615)	323-8242 (Blountville exchange)
gsport	WB	(615)	323-8242†
ville (McGhee-Tyson) 116.4 257 (TYS)	FSS	(615)	577-0795
	WB	(615)	577-4805†
phis 115.5 371 (MEM)	FSS	(901)	398-9260*9
	WB	(901)	398-2347*
	WB	(901)	398-2672†
shville (Metropolitan) 114.1 304 (BNA)	FSS	(615)	AL 4-6552*3
	WB	(615)	256-0333†
	WB	(615)	255-8732*
City (TRI)	FSS	(615)	FA 3-7242

TEXAS

ene 113.7 (ABI)	FSS	(915)	OR 4-6915
	WB	(915)	OR 4-8844†
ce (AAS) 114.5 (ALI)	FSS	(512)	MO 4-4291
arillo (Air Terminal) 117.2 251 (AMA)	FSS	(806)	DI 9-1608
	WB	(806)	DI 9-2261
stin (Robert Mueller) 112.5 (AUS)	FSS	(512)	GR 8-6695
	WB	(512)	GR 6-8554†
aumont (Jefferson County) 114.9 (BPT)	FSS	(512)	RA 2-0288
	WB	(512)	RA 2-7011†
wnsville (Rio Grande Valley International) 116.3 388 (BRO)	FSS	(512)	LI 6-6421
	WB	(512)	LI 2-8231†
ldress 117.6 (CDS)	FSS	(817)	WE 7-3892
llege Station (AAS) (Easterwood) 113.3 (CLL)	FSS	(713)	VI 6-8784*5
rpus Christi	WB	(512)	TU 3-3008†
wila (AAS) 115.8 215 (COT)	FSS	(512)	TR 9-2417
hart 112.0 (DHT)	FSS	(806)	CH 9-2006
llas (Love Field) 114.6 341 (DAL)	FSS	(214)	FL 7-2825
	WB	(214)	AN 4-3481*
	WB	(214)	RI 9-3502†
l Rio (Intl)	WB	(512)	775-2115
Paso (International) 114.5 242 (ELP) 3023.5RX	FSS	(915)	PR 8-4447
	WB	(915)	778-4487*
	WB	(915)	772-3208†
rt Worth (AAS) (Meacham) 365 (FTW)	FSS	(817)	MA 4-8444
	WB	(817)	BU 3-1571*
	WB	(817)	BU 3-3961†

TEXAS (Con't.)

Location and Frequencies		Code Area	Telephone
Galveston (AAS) (Scholes) 112.8 206 (GLS)	FSS	(713)	SH 4-3255
	WB	(713)	SO 3-4670† (2130-0530)
	WB	(713)	SH 4-4833† (0543-2130)
Gregg County (Longview) 112.4 (GGG)	FSS	(214)	
Houston (International) 115.9 332 (HOU) 3023.5RX	FSS	(713)	MI 5-6693
	WB	(713)	MI 4-1507*
	WB	(713)	OL 4-0178†
Junction (AAS) 116.0 (JCT) 121.5 121.7	FSF	(713)	HI 6-2561 (1200-2400)
Laredo	WB	(512)	RA 3-5547
Lubbock 110.8 391 (LBB)	FSS	(806)	PO 2-5065
	WB	(806)	PO 2-2380†
Lufkin (AAS) (Angelena County) 112.1 356 (LFK)	FSS	(713)	NE 4-3544
McAllen (AAS) (Miller Field) 109.8 (MFE)	FSS	(512)	MU 6-2878
Midland (Air Terminal) 114.8 (MAF)	FSS	(713)	LO 3-2611
	WB	(713)	LO 3-0850†
Mineral Wells (AAS) 117.7 284 (MWL) 3023.5RX	FSS	(713)	FA 5-5922
Odessa	WB	(915)	LO 3-0850† (via Midland)
Palacios (AAS) 117.3 (PSX)	FSS	(713)	824-2218
Port Arthur	WB	(713)	RA 2-7011†
San Angelo (Mathis) 115.1 (SJT)	FSS	(713)	655-5638
	WB	(713)	655-9790†
San Antonio (International) 116.8 254 (SAT)	FSS	(512)	TA 6-6323
	WB	(512)	TA 6-0411†
Tyler (Pounds) 320 (TYR)	FSS	(214)	LY 4-6301
Victoria	WB	(512)	HI 5-1276†
Waco 115.3 (ACT)	FSS	(817)	PL 2-4811
	WB	(817)	PL 4-1582
Wichita Falls 112.7 296 (SPS)	FSS	(817)	322-1302
	WB	(817)	322-2011
Wink 112.1 (INK)	FSS	(915)	LA 7-3351

UTAH

Bryce Canyon 112.8 (BCE)	FSS	(801)	TE 4-5311
Cedar City (AAS) 108.6 (CDC)	FSS	(801)	JU 6-9131
Delta 117.6 212 (DTA) 121.5 121.7	FSF	(801)	4741 (1300-0100)
Hanksville (AAS) 115.9 (HVE)	FSS	(801)	Hanksville 8
Milford	WB	(801)	387-2361 (0900-1700)
Salt Lake City (Municipal #1) 116.8 227 (SLC)	FSS	(801)	524-5183
	WB	(801)	364-5571*
	WB	(801)	524-5139†
Wendover	WB	(801)	2731 (0430-2015)

VERMONT

Burlington	WB	(802)	862-2475
Montpelier (Barre-Montpelier) 108.2 257 (MPV)	FSS	(802)	CA 3-2376

VIRGINIA

Blackstone 326 (BKT)	FSS	(703)	292-3826
Bristol	WB	(703)	323-8242† (Tri-City)
Chantilly (Dulles)	WB	(703)	661-8526†
Charlottesville (Charlottesvile 'Albermarle) (CHO)	FSS	(703)	973-3909
Danville 113.1 (DAN)	FSS	(703)	SW 3-1163
Newport News (Patrick Henry) (PHF)	FSS	(703)	877-0200
	FSS	(703)	877-0209

FSS FREQUENCIES AND TELEPHONE NUMBERS

VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Norfolk	WB	(703)	853-3014
Richmond (Byrd Field) 114.1 260 (RIC)	FSS	(703)	RE 7-8103
	WB	(703)	737-0550†
Roanoke (Woodrum) 109.4 371 (ROA)	FSS	(703)	EM 6-0011
	WB	(703)	366-2351†

WASHINGTON

Bellingham 113.0 362 (BLI) 3023.5R	FSS	(206)	734-6400
Ephrata 116.8 269 (EPH)	FSS	(509)	SK 4-2361
Hoquiam (AAS) (Bowerman) 113.1 (HQM)	FSS	(206)	GE 9-3432
Olympia	WB	(206)	357-8386
Seattle (Seattle-Tacoma Int'l.) 114.5 260 (SEA)	FSS	(206)	CH 3-4200
(Federal Bldg)	WB	(206)	MU 2-5318†
(Federal Bldg)	WB	(206)	MU 2-3655*
(Boeing)	WB	(206)	PA 5-8044†
(Seattle Tacoma Intl)	WB	(206)	CH 2-5262†
Spokane (AAS) (Felts) 115.5 365 (GEG)	FSS	(509)	KE 5-2906
	WB	(509)	MA 4-5674†
Toledo (AAS) (Toledo-Winlock) 239 (TDO)	FSS	(206)	864-2371
Walla Walla (AAS) (City-County) 111.8 356 (ALW)	FSS	(509)	JA 9-1413
Wenatchee (AAS) (Pangborn) 111.0 (EAT)	FSS	(509)	TU 4-5654
Yakima 116.0 (YKM)	FSS	(509)	GL 3-9862
	WB	(509)	GL 7-4371

WEST VIRGINIA

Beckley	WB	(304)	252-3171†
Bluefield (AAS) (Mercer County) 115.4 (BLF) ◆135.9	FSS	(304)	325-6521
Charleston (Kanawha) 117.4 (CRW)	FSS	(304)	342-1371
	WB	(304)	%
Elkins (Randolph) 114.5 245 (EKN)	FSS	(304)	636-0810
	WB	(304)	636-1200†
Huntington (Tri-State) 323 (HTS)	FSS	(304)	GL 3-1412
	WB	(304)	453-3674†
Martinsburg (AAS) 112.1 209 (MRB)	FSS	(304)	AM 3-9353
Morgantown (AAS) 111.6 269 (MGW)	FSS	(304)	292-3632

WEST VIRGINIA (Con't.)

Location and Frequencies		Code Area	Telephone
Parkersburg (Wood County) 114.2 (PKB)	FSS	(304)	[illegible]
	WB	(304)	[illegible]
		(0700-[illegible]	
		(0700-[illegible]	
Wheeling (Ohio County) 112.2 (HLG)	FSS	(304)	[illegible]

WISCONSIN

Eau Claire (AAS) 112.9 (EAU)	FSS	(715)	[illegible]
Green Bay (Austin Straubel) 117.0 (GRB)	FSS	(715)	[illegible]
	WB	(414)	[illegible]
La Crosse (AAS) 108.4 371 (LSE) 3023.5RX	FSS	(715)	[illegible]
Lone Rock (AAS) (Tri-County 112.8 (LNR) 3023.5RX	FSS	(608)	[illegible]
Madison (Traux) 400 (MSN) 3023.5RX	FSS	(608)	[illegible]
	WB	(608)	[illegible]
Milwaukee (General Mitchell) 116.4 242 (MKE)	FSS	(414)	[illegible]
	WB	(414)	[illegible]
	WB	(414)	[illegible]
Wausau (AAS) 111.6 (AUW)	FSS	(715)	[illegible]

WYOMING

Casper (Casper Air Terminal) 116.2 269 (CPR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
Cheyenne 113.1 326 (CYS)	WB	(307)	[illegible]
	WB	(307)	[illegible]
Lander	WB	(307)	[illegible]
Laramie (AAS) (General Brees Field) 117.6 (LAR)	FSS	(307)	[illegible]
Rawlins (AAS) (RWL)	FSS	(307)	[illegible]
Rock Springs (AAS) 114.7 290 (RKS)	FSS	(307)	[illegible]
Sheridan (AAS) (Sheridan County) 115.3 239 (SHR)	FSS	(307)	[illegible]
	WB	(307)	[illegible]
			[illegible]
Worland (AAS) (WRL)	FSS	(307)	[illegible]

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